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'It's more than just kale (cough)'. New Zealand Sāmoan attitudes to living with chronic cough and healthcare access

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ABSTRACT

Introduction. Chronic cough is burdensome for individuals and healthcare providers and is a symptom common to a number of health conditions, including bronchiectasis. The prevalence of respiratory conditions, particularly bronchiectasis, is disproportionately high among Pacific people residing in Counties Manukau. Barriers to healthcare access and engagement, both practical and cultural, contribute to delayed presentation and advanced illness. **Aim.** This study aims to explore attitudes to cough and healthcare access by Sāmoan adults living in Counties Manukau. **Methods.** Semi-structured interviews guided by Talanoa, a Pacific-specific method, were conducted focusing on cough duration and characteristics, treatment-seeking behaviours, and healthcare experiences. Data were analysed thematically and framed using the Fonofale Model of Health. **Results.** Two overarching themes were constructed from seven Talanoa: 'Understanding my cough' and 'healing, curing and coping with cough'. Chronic kale/cough was found to impact on all pou (posts) of the Fonofale health model. Kale/cough management strategies were drawn from Sāmoan and Western health paradigms, perceived as complementary. Access to specialist services was valued and extended participants' coping repertoire further. Respect and trust shaped relationships with healthcare providers and influenced engagement. **Discussion.** Models such as the Fonofale health model provide a framework for healthcare providers to better understand the multi-dimensional impact of cough. Recognising the cultural perspectives of populations underrepresented in the health workforce provides valuable insights to re-frame healthcare practice and service to optimise engagement with on-going symptoms such as cough and to support chronic conditions.

Keywords: attitudes, bronchiectasis, chronic cough, Fonofale health model, healthcare access, impact, Sāmoan.

Introduction

Little is known about how cough impacts individuals across different ethnic groups. Yet cough is acknowledged as one of the most common symptoms for seeking medical care.[1] Cough represents a substantial burden on individuals, communities and health providers, with global epidemiological data from 1980 to 2013 indicating 1 in 10 adults are affected by cough.[2] Chronic cough, (lasting more than 12 weeks) also represents a significant unmet clinical need[2] and requires evaluation for underlying causes such as lung cancer and bronchiectasis.[3,4]

In Aotearoa New Zealand (NZ), respiratory conditions such as asthma, chronic obstructive lung disease and bronchiectasis are significantly more prevalent among Māori and Pacific peoples, representing the highest respiratory health burden.[5] The cost burden of respiratory disease in NZ was estimated at $8.9 billion in 2019, with the majority ($7.81 billion) attributed to indirect costs associated with mortality and disability, and $575.6 million in direct costs from prescriptions, primary care visits and hospitalisations.[5] Early diagnosis and management of symptoms, including cough, is therefore essential.

Chronic cough is synonymous with bronchiectasis, a chronic lung condition characterised by a wet productive cough and frequent airway infections resulting in progressive and irreversible airway damage.[6] The prevalence of bronchiectasis among Pacific people

WHAT GAP THIS FILLS

What is already known: Chronic cough is a common symptom and typically prompts a medical review. However, barriers to accessing and engaging with health care exist and may account for the high prevalence of respiratory conditions such as bronchiectasis among Māori and Pacific people living in Counties Manukau. **What this study adds:** Enhanced understanding of the unique perspectives of Sāmoan living with chronic cough enables health professionals to provide culturally nuanced services and promote early and on-going engagement in the management of cough.

is the highest in NZ, with an age-standardised population rate of 384.9 per 100,000.[5] In Counties Manukau, the prevalence of severe bronchiectasis is also highest compared with other regions,[5] underscoring the need for early diagnosis and management. However, diagnosis and management depend on individuals with chronic cough accessing and engaging with primary and specialist care.

Although access to health is universal across New Zealand, practical and cultural barriers exist, such as inflexible work demands, language barriers and cultural discomfort with non-Pacific providers.[7–9] Cultural worldviews have also been found to shape how Sāmoan and non-Sāmoan individuals engage with health care and impact on relationships, including engagement with health professionals.[10] The lack of cultural diversity in health workforces compounds this, with only 2.6% of medical doctors, 4.5% of nurses and 1.9% of physiotherapists self-reporting their ethnicity as Pacific Island in 2023/2024.[11]

Cultural frameworks, such as the Fonofale Model of Health[12] (Fig. 1), may assist non-Pacific clinicians in delivering care that respects Pacific people's health beliefs and helps address recognised barriers to engagement.[13] Findings from other Pacific communities, such as Tongan, have similarly highlighted the role of cultural context in shaping attitudes toward chronic cough and access to care.[14] Pacific people tend to engage less frequently with health care, often presenting later with more advanced illness.[15] Delayed diagnosis and management can impact activities, general wellbeing and community contribution, as well as incurring increased health costs.[5] This study offers an exploration of Sāmoan adults' attitudes to cough and healthcare access to identify how best early and on-going engagement can be promoted.

Methods

A qualitative descriptive study was undertaken using Talanoa[16] as a Pacific-specific method. Although each Pacific culture may have unique values and principles that

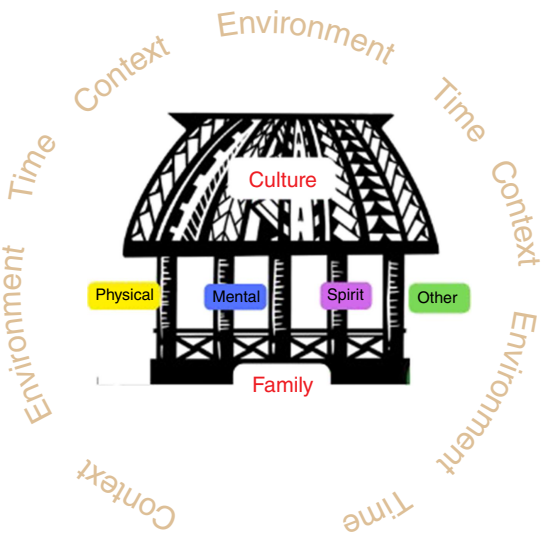

Fig. 1. Fonofale Model of Health, based on the work by Pulotu-Endemann (2009).[12]

shape Talanoa, shared core tenants are recognised[16] and include creation of meaningful spaces of authentic conversation underpinned by values such as *mālie* (good spiritedness), *māfana* (warmth), and *faka'apa'apa* (respect and humility).[14,16,17] In research, Talanoa has been used to explore perceptions of NZ health and health care in various Pacific communities.[18–20] It is used in the current study to redress barriers to research engagement and highlight Pacific perspectives and worldviews.[16,17]

Sāmoan adults resident in Counties Manukau who had a cough for more than 12 weeks were purposively recruited from respiratory clinics and community forums. Potential participants who expressed interest were contacted by the team and provided with further details about the study. Seven Talanoa were conducted by Sāmoan members of the research team and explored Sāmoan attitudes to chronic cough and healthcare access. Talanoa were undertaken in a time and place convenient to participants; *lotu* (prayer) was offered along with light refreshments. Rapport was built through shared connections of family, church community and experiences in the diaspora. Participants were given a voucher as a *meaalofa* (gift) for their time. Questions prompted conversations around cough parameters, ie duration, perceived cause, treatments received (Sāmoan/pharmacological/non-pharmacological), from whom initial treatment was sought and experience of further treatment, ie respiratory physician/physiotherapist. Participants' age, gender, preferred mode of interview (phone/face-to-face/video conference) and language were also recorded. Additional layers of questions explored cultural values, beliefs and behaviours regarding cough. All Talanoa were digitally recorded and transcribed verbatim. Sāmoan dialogue from six Talanoa were translated into English by the Sāmoan researchers, prior to cross-checking for accuracy

and ensuring preservation of meaning. Disagreements in this process were discussed until consensus was met. Both English and Sāmoan transcripts were available for analysis.

Data analysis

Data were analysed using the six-phase thematic analysis outlined by Braun and Clarke[21] and framed by the Fonofale health model. All researchers engaged with all transcripts utilising Miro computer software© (2021, Amsterdam, Netherlands) to construct themes.

Ethics

Approval was obtained on 28 February 2022 from Northern B Health and Disability Ethics Commission (2022 EXP 12080) and on 4 May 2022 from Localities and Counties Manukau Health Research (registration number: 1572). Informed consent was obtained from all participants prior to each Talanoa. The research team also engaged in iterative meetings to reflect and ensure that the research was ethical within a cultural context.[22,23]

Results

Seven Talanoa were undertaken between June 2023 and March 2024 with four *tama'ita'i* (Sāmoan women) and three *tamaloa* (Sāmoan men). Participant characteristics and interview details are presented in Table 1. The average age of participants was 57 years, with an age range of 22–68 years. All Talanoa were conducted face-to-face and bilingually. Each participant's preference to speak in Sāmoan was respected to promote fluent conversation and exploration of the research topic.[23]

Themes

Two core themes: 'understanding my cough' and 'healing, curing and coping with cough' were constructed, all reflecting a shared journey toward wellness.

Understanding my cough

Cough was recognised as a symptom and described within the context of sickness and wellness. Participants acknowledged that coughing was commonplace and could be relatively innocuous, however, persistent cough could be a concern.

> A normal one, it's not like every time or day, it's only twice or three times a day … the cough is a common thing to occur. It's when it gets worse that we need to quickly deal with it by seeing the doctor (P2).

> Before I admitted [sic] there … the [colour] of the [phlegm] was bad … greenish … so they [hospital staff] were like 'okay now we'll just admit you'. I was really shocked! (P5)

A worsening cough was associated with symptoms such as shortness of breath, wheezing etc. However, *fatutale*

Table 1. Participant characteristics and interview details.

Participant number	Respiratory condition	Sex	Age (years)	Recruited from	Language (dominant language indicated first)
1	Bronchiectasis	Female *Tama'ita'i*	68	Clinic	English
2	Bronchiectasis	Male *Tamaloa*	65	Clinic	Sāmoan/English
3	Bronchiectasis	Female *Tama'ita'i*	50	Clinic	English/Sāmoan
4	Bronchiectasis	Male *Tamaloa*	61	Clinic	English/Sāmoan
5	Bronchiectasis	Female *Tama'ita'i*	22	Community	English/Sāmoan
6	Bronchiectasis	Female *Tama'ita'i*	65	Community	English/Sāmoan
7	No known cause for cough	Male *Tamaloa*	68	Clinic	English/Sāmoan

Note: *Tamaloa* = Samoan man; *Tama'ita'i* = Samoan woman

(spoken informally as *fakukale* meaning phlegm) was most monitored, symbolic of deterioration or improvement. 'I think when you have fakukale in your lungs it's telling you that something wrong [sic] with your lungs aye? And you have to take care' (P6). Conversely, *fatutale* also signalled healing: 'Once the mucus comes that's a sign that you're getting better, you'll be healed, it's being released and that's a good sign' (P7).

Chronic cough affected multiple pillars of the Fonofale Model of Health. Physically, cough manifested as fatigue and burden: 'So it [producing phlegm] happened over and over and over again, and then I was telling my mum, Mum, I'm tired, I'm really tired of this' (P5). Cough also impacted socially: '[can't do] any work, not going to work' (P3), and sleep: 'like, sometimes if you don't sleep, or have enough rest, you will cough' (P2). Participants' psychosocial wellbeing and connectivity were also impacted: 'So I am ashamed of my cough … people are not going to like you if you cough in front of people, that's a bad thing about the cough' (P3).

Participants' environments were perceived as affecting chronic cough. Six of the seven participants were raised in Sāmoa and described differences between Sāmoan and NZ environments as influencing cough and wellbeing. Although reduced air quality due to factory fumes and cigarette smoke were highlighted as contributing factors, temperature and dampness were described as triggers.

Protection against the cold and wet weather of New Zealand was described: 'this is what causes my cough, it's not taking care of myself in a way where I should keep myself warm' (P6; translated from Sāmoan). For P7, 'the cause of the cough is the cold. … you've got to have enough clothes in order for you to keep yourself inside warm'. In contrast, Talanoa highlighted beliefs that being active in Sāmoa both contributed to a sense of vitality during their youth yet predisposed them to cough.

> In Sāmoa, you have carry [sic] around very heavy loads, and I feel it started with that. … that was like breaking my body and also being wet would make me cough a lot and cause me shortness of breath. (P3)

Persistent cough was tolerated, and symptoms were monitored for signs of deterioration or improvement. Participants drew from a range of strategies and beliefs to manage their cough. These were grounded in Sāmoan understandings of wellness, shaped by their environment, attitudes and availability of traditional health, family practices and spirituality.

Healing, curing and coping with cough

Talanoa revealed how participants drew from practices derived from cultural and family traditions as well as Western health care in efforts to manage their cough and attain wellness. Weaving autonomously between different paradigms allowed participants to draw on diverse coping strategies to heal, cure and cope.

Remedies included *fofō Sāmoa*, namely traditional massage, herbal medicines, steam inhalation and family-led therapies.

> My father would massage their chest and back … warm up coconut oil in a teaspoon then use to rub their chest and back to warm them, then take cloth to warm the neck (P7; translated from Sāmoan).

These strategies alone were insufficient to provide curative or long-term relief from chronic cough. Challenges were described regarding accessing *fofō Sāmoa* in NZ and related to the limited availability of practitioners and financial barriers. Limitations of *fofō Sāmoa* were described when treating physical symptoms perceived as 'internal'. Medical advice was then sought to alleviate cough as a symptom and determine or influence the cause. 'In Sāmoa, the doctor is good for matters inside, we are useful to help on the outside, but the doctor is good to get medicines for the inside' (P6).

Visits to general practitioners (GPs) were usually motivated by the hope for a curative treatment – particularly antibiotics. Frustration and dissatisfaction were reported when participant expectations were not met, ie reduced cough, when participants feel unheard etc. 'The doctors were saying, take this, that, that, but when I take it it's still the same, still the same thing … nothing worked' (P5). Additionally, for P1: 'These doctors, you have to say 'no, I've been taking that', you have to fight my battle for all these tablets that I get'.

Many participants expressed confidence in their GP's ability to prescribe effective medicines.

> If I cough inside the doctor's room, he can feel, he can hear there's something, that's why he decided to give me [medication]. I have trust in the medications that I get. (P2)

These experiences illustrate the challenges for participants between trusting the health professional and the patient's lived experience and expectations.

Despite trust in Western care, confusion remained especially around antibiotic therapy. Antibiotics were perceived as the most efficacious and reserved for times when symptoms persisted despite use of other strategies. Tension between what participants perceived as necessary to manage cough and advice/prescriptions provided by a health professional was evident:

> So the only tablets that really like was amoxicillin. So I go there, I want the antibiotics, and they give me the pumps. But I don't want the pumps, I want the antibiotics – amoxicillin. (P1)

For P6: 'Other times the doctor will say 'you don't need this [antibiotics]' right? 'You don't need this' and we won't get it. So, which is good isn't it?'

Attending specialist respiratory services, namely a respiratory consultant and/or respiratory physiotherapist (P1, P4, P5) provided additional strategies including exercises (airway clearance techniques and inhalers). These recommended strategies were adopted and woven into their coping repertoire to complement *fofō Sāmoa* in managing external physical symptoms.

> I follow what the [specialist clinic says] with the breathing, usually exercise my breath in the morning. I try to warm up myself, keep away from the cold. But, do some exercise … keeping my spray, my puffer, you have to follow whatever they said. And the other thing … I use ginger sometimes, turmeric, and then one orange, or two orange. I usually cook a big bowl, I love it. (P4)

Although strategies described focused on maintaining warmth (internal and external) and physical wellbeing, navigating between different health paradigms, spirituality and specifically the power of prayer was integral to cough management.

Prayer was central to most of the participants coping. *'Āīga* (family) would pray for strength, healing and resilience in the face of persistent symptoms. 'Please, spit out the phlegm, we will pray for you … be brave for us and pray to our Father to bless you with strength' (P5). Other participants drew on their faith to support healthcare professionals in their work or to enhance positive effects of coping strategies:

> I have hope and faith in the work that everyone is doing. Although I pray to God for help when it comes to my health, I also believe in the work that you [healthcare professionals] all do. (P2)

Prayer represented a valuable coping strategy to both manage cough and frame engagement with healthcare providers as a partnership guided by both faith and trust.

Persistent cough was perceived as cumbersome and negatively impacted on participants' sense of well-being, energy, family and community engagement. Participants drew from different health paradigms embedded in cultural beliefs and Sāmoan values, contextualised within Western health care and NZ to seek out therapies to alleviate cough. Engagement with health professionals was shaped by trust, respect and genuine care in their wellbeing and partnership in managing chronic cough.

Discussion

The findings provide a unique perspective on how Sāmoan adults in Counties Manukau manage chronic cough. The often-overlooked impact of chronic cough across multiple health dimensions is highlighted, ie beyond physical and including emotional, spiritual and social – key *pou* (posts) of the Fonofale Model of Health. The far-reaching consequences of chronic cough interrupted participants ability to be active and work and commonly resulted in feelings of shame, embarrassment and social disconnection. The pervasive nature of these consequences required participants to draw upon a wide repertoire of coping strategies and navigate different health paradigms in the pursuit of strength, resilience and wellbeing.

Participants spoke of multiple visits to health professionals with little 'cure' of their cough. Unsuccessful treatment trials result in frustration and unnecessary cost when chronic cough is attributed to diseases that are not present.[24] More recently, chronic cough has been promoted as a discrete disease entity, with distinct characteristics and cough phenotypes. Cough as a treatable trait, aggravated by secondary factors, eg smoking and asthma, is also advocated.[25] Recognition of chronic cough as a disease rather than a symptom alone may enable health professionals to better focus on cough therapies and undertake research to understand chronic cough pathways and develop treatments.[24] Patients may also better understand the complexity of cough management as they navigate between management strategies.

The interplay between traditional Sāmoan healing practices and Western health care was a defining feature of participants' experiences. Traditional remedies, such as massage and herbal medicines, were commonly used to manage cough. Participants described these practices as culturally embedded and easily accessible, offering a sense of familiarity and trust. Moreover, they viewed these traditional approaches as complementary to Western medical interventions, with some participants drawing parallels between traditional massage and physiotherapy, ie a manual technique of percussion to loosen *fatutale* (phlegm), or between herbal remedies and pharmacological treatments. The blending of paradigms reflects participants' active navigation of dual systems of care to optimise their health outcomes.

Antibiotics emerged as an expectation in managing cough by Sāmoan participants, irrespective of whether antibiotics were indicated. Antibiotic use among Sāmoan people is high,[26–28] including for upper respiratory infections.[29] Findings from a 2023 qualitative study with Māori and Pacific peoples found that knowledge about antibiotics, their use, as well as conditions and symptoms where they were indicated, were generally limited.[30] Furthermore, the study found that participants had trust in their GP's decision not to prescribe antibiotics following clear assessment, justification and communication. From Talanoa in the current study, antibiotic expectations appeared to not solely rely on clinical symptoms but on past experiences, beliefs and perceived efficacy, concurrent with Thaggard *et al.*[30] Sāmoan

participants were also happy to be guided by a trusted health professional.

The role of *'āīga* (family) was central. *'Āīga* provided support – praying, massaging, preparing traditional remedies – but also, at times, reinforced stigma or influenced healthcare decisions. This further supports the importance of involving *'āīga* in health education, particularly for chronic cough and antibiotic use, and potentially other health-related conditions. Given the high incidence of severe bronchiectasis in Pacific children,[5] improved intergenerational education around antibiotics is relevant. Improved understanding regarding antibiotics, their indications, use and completion are key health messages relevant to all populations in the fight against drug-resistant infections and inappropriate antibiotic consumption.[31] Time to explain utilising culturally appropriate tools and delivered by a trusted health professional, may also help to better inform communities.

For people living in Counties Manukau, access to GPs was challenged by a disproportionately smaller serviced population by primary care.[32] Participants who accessed specialist care reported significant benefits in symptom management. Additional targeted treatments, including respiratory physiotherapy, added to their cough management repertoire, yet were also challenging to access. Survey findings of NZ adult respiratory and sleep services indicate a marked regional variation in specialist respiratory physician staffing per 1000,000 population across NZ regions (formally District Health Boards),[33] with patients from these regions managed by general medicine physicians or required to travel to attend specialist respiratory services elsewhere. Additionally, although an above-average physiotherapy-to-population ratio exists compared with other Organisation for Economic Co-operation and Development countries, geographic accessibility to physiotherapy care is limited, especially respiratory physiotherapy.[34] Inequalities and inequity in health, especially for Pacific People in NZ, persist, specifically in respiratory health.[5] Addressing population, as well as local, health determinants is essential to promote equitable respiratory outcomes and is the responsibility of health professionals[35] and politicians alike.

Irrespective of the lack of cultural diversity in the health workforce relative to NZ's population,[11,36] study participants generally did not raise concerns during Talanoa. Although access is problematic, participants generally spoke of positive engagement with health professionals, characterised by time spent developing rapport, compassion, providing thorough explanations and tailored management plans, irrespective of the ethnicity of health professional encountered. Findings mirror key elements of positive patient experiences, namely rapport building and good communication.[10] Improved understanding of cultural nuances of health beliefs and behaviours may further enhance health professionals and patients' collaborative journey towards reduced cough and chronic management, as well as influencing generational beliefs and behaviours regarding aspects of management, ie antibiotics.

Findings have application across many chronic health issues that require diagnosis, engagement, and on-going review. Chronic cough as a disease or treatable trait warrants detailed investigation. Access and engagement are pivotal, together with health professional's receptiveness to alternative and complementary therapies, as patients navigate different health paradigms to resolve disease characteristics such as cough.

Strengths and limitations

This study provides rich insights into Sāmoan experiences of chronic cough, grounded in culturally appropriate methods. The use of Talanoa by Sāmoan research team members ensured authenticity and allowed participants to share in English, Sāmoan or both. Cultural governance preserved meaning and prevented misinterpretation.

Limitations include the small sample size and narrow geographic scope (Counties Manukau). Recruitment was challenging despite culturally embedded strategies advocated by George *et al.*[37] designed to optimise recruitment and negate barriers of ethnic minorities in health research.[38] Strategies included promotion by Sāmoan colleagues verbally and through flyers circulated among Sāmoan health staff, communities, etc. A broader participant demographic may have revealed wider variation in beliefs or care access. Nonetheless, findings remain valuable for health professionals working with Pacific peoples.

Conclusion

The impact of cough was found to be far reaching in Sāmoan adults living in Counties Manukau. Cough permeated all dimensions of the Fonofale Model of Health, symbolic of Sāmoan participants' holistic view of health. *Fofō Sāmoa* (traditional healing practices) were perceived as complementary, and not in tension with Western medicine. Antibiotic therapy was complex with tensions around what participants knew they needed in preference to other medications, with other participants respectful of the recommendations of GPs. Specialist services provided a further layer of coping strategies. Participants drew from both health paradigms as they wove therapies together to create relief, cure and coping strategies to better manage their cough and restore balance and wellbeing.

Engagement with health professionals was valued. Time to understand their cough, learn new techniques and develop self-management strategies was also appreciated. Some participants actively sought out health professionals with whom their values aligned and with whom they were connected. Relationships evolved through communication, trust and respect. It is critical, given that health professional

demographics do not mirror that of the New Zealand population, including Sāmoan, that health professionals provide culturally responsive care to optimise engagement, ultimately working together to achieve improved health and wellbeing, and ongoing engagement, particularly for people with chronic conditions, including cough.

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