The Journal of Pacific Research



Original Research

OPEN ACCESS

Identifying and overcoming barriers to healthier lives

Ridvan FIRESTONE, 1* Tevita FUNAKI, 2 Sally Dalhousie, 2 Akarere HENRY, 3 Mereaumate VANO, 3 Jacqui GREY, 4 Andrew JULL, 4 Robyn WHITTAKER, 4 Lisa TE MORENGA, 5 Cliona NI MHURCHU4

ABSTRACT

Understanding the key determinants of health from a community perspective is essential to address and improve the health and wellbeing of its members. This qualitative study aimed to explore and better understand New Zealand-based Pasifika communities' sociocultural experiences and knowledge of health and wellbeing. Fifty-seven participants were involved in six separate focus groups. Community coordinators co-facilitated and transcribed the discussions and conducted thematic analysis. The findings suggested two overarching themes: (1) 'Pasifika experiences on poor health and wellbeing': were based on sub-themes: (i) 'recognisable issues' (e.g., poor diet and lifestyle behaviours); (ii) 'systemic issues' that support the perpetual health issues (e.g., lack of knowledge and education) and; (iii) 'profound issues' that are often unspoken of and create long-term barriers (e.g., cultural lifestyle and responsibilities). (2) 'Hopes and dreams' to improve health and well-being requires: (i) a family-centric approach to health; (ii) tackling systemic barriers; and (iii) addressing community social justice issues. This study provides deepened insights on Pasifika communities' understanding healthier living in the context of their cultural environment and family responsibilities. If we are to develop effective, sustainable programmes that prioritises health and well-being based on the needs of Pasifika communities, the findings from this study highlight their needs as step forward in overcoming barriers to healthier lives.

KEY WORDS: Pacific Islander health, co-design, culture and health, non-communicable diseases

INTRODUCTION

When Pacific peoples migrated to New Zealand (NZ) in the 1960-70s, it was for a better start in life, as well as, meeting the NZ labour needs postworld war two. However, adaptions and changes to their lifestyles associated with urbanisation and modernisation had significant implications on the traditional Pacific lifestyle (e.g., living and operating communally as a village), which conflicts with the mainstream western lifestyles in NZ (e.g., living as an independent family unit in a neighbourhood). A key difference was notably in the area of health and well-being perspectives, and the determinants of health. For example, the role food plays in family and community socialisation, and perspectives on body size in relation to health (e.g., being thin was associated with being unwell), differs to that of westernised viewpoints, particularly when they are measured as poor health indicators. Having a large body size in relation to obesity (i.e., body mass index (BMI)>30kg/m²) has been shown to have major health implications such as

r.t.firestone@massey.ac.nz;

Received: 03.05.2018; Published: 30.09.2018

Citation: Firestone R, et al. Identifying what healthier lives mean to means to Pacific peoples. Pacific Health Dialog 2018;21(2):54-66. DOI: 10.26635/phd.2018.913.

Copyright: © 2018 Firestone R, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

^{*1}Corresponding author: Ridvan Firestone, Senior Research Officer, Centre for Public Health Research, Massey University, PO Box 756, Wellington 6140, New Zealand

² The Fono, Level 2, 33 Wyndham Street, Auckland City 1010, New Zealand

³ South Waikato Pacific Islands Community Services, 1 Maraetai Road, Tokoroa 3444, New Zealand

⁴ National Institute for Health Innovation, School of Population Health, The University of Auckland, Private Bag 92019, Auckland 1142, New Zealand

⁵ Department of Human Nutrition, University of Otago, PO Box 56, Dunedin, New Zealand

developing; type two diabetes and, other long term conditions, like cardiovascular diseases, for urbanised Pacific peoples¹⁻⁶ Also, the meaning of health in Pacific families encompasses a holistic understanding with the well-being of the family high priority⁷. Social-cultural perspectives are important factors to consider when examining the determinants of health conditions (e.g., obesity) in Pacific peoples. The current assumption is that Pacific peoples do not share the same view of body image as Westerners⁷⁻⁹, and thus may not view obesity as a health problem. The prevailing issue is the clash of definitions for, and understanding health from, a Pacific perspective.

Migration, colonisation, and westernisation have weakened the Pacific family structure over many decades⁴ ¹⁰ ¹¹. Regaining and strengthening family connectedness is important to enhance Pacific family dynamics and health and wellbeing, in a westernised environment¹² ¹³. It is well established that Pacific people experience barriers to accessing health care services14, and they under-utilise primary health care services¹⁵. However, cultural lifestyle factors, values and preferences influence how Pacific peoples view health status and health care¹ 16 17. Pacific people account for approximately 7.8% of the total population in NZ, with the largest Pacific ethnic group comprised of Samoans (3.6%), Tongans (1.5%) and Cook Islanders and Rarotongans (2.5%) intermediary¹⁸. Understanding the reasons and the complex interactions of determinants for poor health is important to delineate better preventative strategies and solutions to preventing chronic disease in Pacific peoples, which have been shown to be successful in previous studies in NZ19-21 and in other countries²²⁻²⁴. The aim of this paper is to describe health and well-being from a Pasifika (i.e., Pan-Pacific) worldview from rural and urban communities, in order to understand how we might collaboratively support communities to lead healthier lives, using co-design as the primary methodological approach to enhance health and wellbeing for indigenous people. For this study, we will be using the term Pasifika peoples, defined as a collective group of people representing different Pacific Island nations predominately from the South Pacific region, recognising that they are not of a homogenous group, but have similar values and protocols.

METHODS

As part of an overarching study²⁵ we present qualitative data obtained from the focus groups of the Pacific arm of that study. The umbrella project which employed co-design as the

methodology to plan, build, test, and implement an healthy lifestyle support mobile health with tool Māori and Pacific (mHealth) community partners. Co-design differs to Community-Based Participatory Research (CBPR), although the latter approach brings together communities and researchers to improve health collaboratively the community. CBPR activelv engages the community in all aspects of the research process²⁶, builds upon existing community strengths²⁷, and may hold significant promise for implementing effective and sustainable public health strategies²⁸. By promoting long-term, equitable partnerships between researchers and communities, CBPR approaches can create a balance between the science of researcherdriven studies and the rigour associated with specialised indigenous knowledge alongside access to key, relevant local networks. CBPR has been endorsed as vital for increasing relevance and sustainability of multilevel interventions²⁹⁻³⁶, because it allows community members to be equal partners in research activities, and identify aspects of inquiry that are outside of the expertise of many 'Western-trained' theorists and researchers. Co-design, is described as "harnessing the knowledge and creativity of citizens and staff in identifying problems and generating and implementing solutions – it offers the opportunity to uncover the real barriers to, and accelerants of, progress"37. It is a relatively new method in public health, yet it has considerable potential for the development of novel and relevant intervention programmes. Co-design is a participatory action process that involves engagement with end-users to develop an intervention (or product) that is relevant to the needs, and takes into account the aspirations and desires of the target group, in our case, Pacific peoples living in NZ.

Participant recruitment

participants were recruited by community research partners in Auckland and South Waikato regions, New Zealand. We used a combination of purposive sampling nominative process, to ensure representation from the community of interest and age groups among Pacific peoples participated in the focus groups (e.g., health experiences, educational and socio-economic backgrounds). Four community co-ordinators were employed to recruit the participants through their community networks. inclusion criteria included: self-identification of being Pacific³⁸, aged 18 years and older, and with an interest in healthy lifestyles and, or the health of their family and community. The participants were informed of the overall purpose of the study, and they understood the nature of their voluntary participation. Written consent were obtained from all participants. A one-page questionnaire was administered at the initial focus group meeting to collect demographic data on participants. Ethical approval for the overall research project was received on 19/04/2016 from the New Zealand Northern A Health and Disability Ethics Committees (reference 16/NTA/29).

Data collection and analyses

A total of six separate focus groups were undertaken with members from our Pacific community partner networks, to understand what is meant by 'healthier lives' by 'health experiences', examining their meaning of wellbeing', and 'hopes and dreams' of healthier lives at an individual and community level. A Pacific model of health (Fonofale)39 was used to guide the study framework and inform the data analyses to ensure that the process of engagement with the participants was aligned to a Pasifika world-view. The Fonofale model was considered to be appropriate for this research as it encompasses beliefs and values in relation to family, culture, and spirituality that many Pacific nations (Samoa, Cook Islands, Tonga, Niue, Tokelau, and Fiji) uphold, particularly in relation to mental health and well-being⁴⁰.

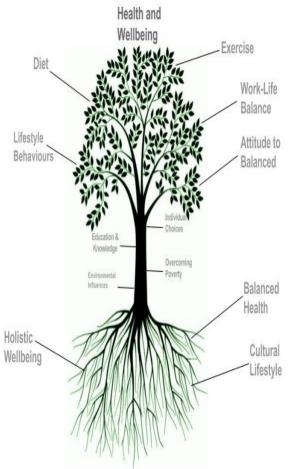
The focus group sessions were facilitated by two community coordinators (one facilitator, one note-taker), and hosted at a local venue that was convenient and known to the participants. One focus group was facilitated in Cook Island language to enable better consultation with the older participants in their native language. Each session lasted up to 120 minutes, and they were audio-recorded, transcribed and re-checked by the co-facilitators. The transcriber from each community conducted initial summary analyses per focus group discussion highlighting key themes. These themes were later verified by an independent analysis and interpretation of the overall transcripts by the first named author. Thematic data analysis involved grouping, indexing, interpretation and consensus of the key themes (saturation). Verification of the thematic analyses was checked by presenting the overall summary of themes to the community partners to validate the findings. The facilitators conducted additional analyses of the data by way of providing 'point of view' (POV) analytics. An adapted co-design approach which personifies the key themes according to functional themes such as: (i) identifying the key users; (ii) primary needs [of the users]; (iii) insights gained (e.g., how societal structures impact on Pacific people, and social positioning); and (iv) pragmatic use of the idea (i.e., turning the idea into a good and/or service). Collectively, the thematic and POV analyses ensured the convergence of the key findings.

FINDINGS

The focus group participants represented a diverse range of Pacific ethnicities including Samoan, Tongan, Cook Islander, Tokelauan, and Fijian, living in the Auckland and Waikato regions of the North Island of New Zealand. The majority were Samoan or Cook Islander. Due to the variety of Pacific Island nations being represented in this study, we will refer to Pacific peoples as 'Pasifika peoples', because the term recognises the diversity of Pacific nations and their inherent cultural practices, languages and history that underscore each ethnic group. A total of 57 Pasifika participants took part in the focus groups, 61% (n=37) were female, and the remainder were male (n=20). The age ranged from 18 to over 65 years old.

The focus group data were collected over a seven month from June to December in 2016, and no repeat focus groups were conducted, as the broad areas of health and wellbeing had been sufficiently explored by each group. Of note, a fourth focus group was conducted that included representatives from each focus group to consult in-depth on the mobile intervention tool, but this data had not been included in this paper, as it focused primarily on co-designing an intervention and thus it will be published elsewhere.

There were two major overarching themes (Figures 1 and 2), each with sub-themes, that emerged from the thematic analyses on identifying and understanding the meaning of health and well-being (Figure 1), and Pasifika peoples' hopes and dreams of leading healthier lives (**Figure 2**). For overarching theme one: health and well-being must be family centred this major theme emerged from the main aim of understanding the participants' experiences of health and identifying what health aspects are important to Pacific people. For overarching theme two: a desire to live longer and be healthier, highlights potential issues that need to be addressed in order to achieve the desire to live longer and be healthier.



Underpinning the first major theme of health and well-being is a very strong focus on the health of family. Sub-themes have been grouped according to three levels, as depicted in Figure 1. We have used a knowledge integration approach⁴¹ to analyse these themes, as it is well-placed to examine different levels of health and wellbeing relation to personal experiences inferences. This approach also links personal perspectives and experiences to actionable knowledge (i.e., what can we do with this knowledge), by way of design thinking⁴². The analogy of a tree was used to categorise each sub-theme⁴¹. Sub-theme one is characterised as the 'obvious and recognisable issues' (i.e., tree leaves), such as diet, lifestyle behaviours, the conditions of work-life balance that may affect health and well-being of the family, and attaining a healthy attitude. Some examples from our focus group discussions highlight the impact of their lifestyle behaviours on the health of individual:

...the holistic things means the whole of the person so if that person doesn't have all of that it means they're unwell they can be unwell physically, mentally, spiritually. So if that person's unwell then the rest are unwell in the family because if you can't cope, the rest see that, so they don't have that support to make that person well unless they

get help..." [Participant 1, Female, Focus Group
1, Auckland]

... I'm bias toward the nutrition and physical activity part of wellbeing and ... my focus ... is on the nutritional side and the physical wellbeing side and ... I want that for my family ... I'm always pushing them to do more activity, eat better foods but ... it's not for me personally, but for my family. It is for that whole mental stability side that mental wellbeing side, I know that they can't do the physical and the nutrition unless that's got sorted, [and] they got that cultural side sorted ... being in dual culture... [Participant 1, Male, Focus Group 3, South Waikato]

Holistic health for Pasifika people encompasses more than just the World Health Organization broad definition of health: "a state of complete physical, mental, and social-wellbeing and not merely the absence of disease or infirmity"43, it pertains to the well-being of the individual and their relationship with the family. Pasifika people in this study rarely referred to body size and weight, as these measures are not key health markers, from a Pasifika perspective, rather there was an inherent desire to live longer in order to look after the younger and older generations, and keep them disease free. Worklife-balance was considered essential to the health and longevity of Pasifika families and generations.

... What motivates me to live to a healthier life? To be able to work, cos I want to help my family that are growing up. There's nothing more [for] me really to enjoy. I have done my part in enjoying my life in the past so I am just looking to give to the younger generation. The intention is to work until I die. I want to be healthy to be able to do that... [Participant 1, male, Focus Group 1, Auckland]

...to have a healthy lifestyle, peaceful home ... financial was mentioned, healthy lifestyle, my children need to be educated ... to live a healthy lifestyle, eat healthy. Stay away from drugs and alcohol. This is the road to wellbeing, these things [drugs and alcohol] are coming in and it is going to get worse. [Participant 4, Female, Focus Group 1, South Waikato]

Sub-theme two (of Figure 1) of this theme is characterised by the participants' views as being the supporting and ongoing issues or the 'systemic factors' (i.e., tree trunk) which were encountered by individuals and families, but may not align with their customs or traditions. There may also be other systemic issues such as environmental factors (e.g., no access to fruit and vegetable market, only a corner-shop store), that inhibit their ability to attain health and wellbeing. The majority of participants recognised that individual choice to be healthy is

a basic human right, although making an informed lifestyle choice largely depends on having a degree of knowledge, even if it was based on prior experience. Some examples from our focus groups corroborate these points:

...Pretty much the basic human rights really, a warm house for her kids, that's like a human right and when we're not even meeting the human rights of people like that. It's quite questionable. [Participant 9, Female, Focus Group 1, Auckland]

... Education is the key because we experience all the bad things that we did for ourselves in the past, and affects us, our health now. So we know ... and we can show that to the young generation what to avoid. We know now that eating a lot of bad food, sugar and stuff is bad so that's a message that we can give to our young generation and try to make them see. I remember when growing up I heard that smoking is bad for you. I didn't stop, keep on smoking for different reasons, peer pressure and other. So until it affect me and affect my singing ability and stuff, I finally stopped. The doctor told me if you smoke another cigarette you will die and so that's when it stopped. ... We want to give our young generation ... a better way to understand and to stop before they get into trouble. [Participant 3, Male, Focus Group 1, Auckland]

The above example also links education to having a more positive outlook on lifestyle, by increasing capacity and capability of individual members to provide for the family. For instance, if people were able to secure better jobs, then they would be in a better position (financially) to provide for their family. For Pasifika families, a 'healthy family' was typically judged by way of family practices - as a 'state of doing'. example, how actively involved is the family in church affairs. This differs to 'family well-being', which could be viewed as (a 'state of being'). Health was perceived by the participants by way of what they 'can do' or 'provide' for their families. Furthermore, overcoming poverty relates to this nuance of education and maintaining job security.

...Being able to provide the needs and the necessities of the family. Putting food on the table and providing a warm home. You know being able to care for their needs, like an education,... it's really sad when I think of everybody that's needing a warm home which we can't afford. If the money that they are earning won't be able to afford that home ... a roof [over] their heads Seeing a lot of what is happening around in Auckland ... people are living in cars and it is their right to live in a home. [Participant 6, Female, ## years old, Focus Group 1, Auckland]

The third sub-theme relates to environmental influences. The participants' interpretation of the environment has a strong connection with the initial sub-theme particularly with the holistic understanding of wellbeing and that of spiritual dimensions. Notions of: 'love' and 'caring for others'; relying on their 'faith' to ensure a balanced spiritual health; having a 'warm home', and 'better access to food choices, health services, and good information', were all deemed important drivers of good health and wellbeing. The home context was especially important as it was perceived as a setting that promotes health and wellbeing, family and community, and feeling safe and respected, within the home environment.

...Good relationships, good family, good happy church. Vibrant community. [Participant 3, Male, Focus Group 1, Auckland]

... You've got the family at the bottom then you've got the pillars of spiritual, mental, physical, emotional, and at the top of that you've got your culture and then you've got your environment context as well. [Participant 8, Female, Focus Group 1, Auckland]

The third sub-theme (in Figure 1) includes crosscutting themes of sub-themes one and two (i.e., holistic wellbeing, balanced health and lifestyle, and cultural lifestyle and responsibilities). However, they were characterised as the issues that have been well established in custom and tradition, which are often 'unspoken about or difficult to modify due to their deep-rooted nature' of the issues (i.e., tree roots). These themes were consistently and frequently discussed across all the focus groups (a safe environment), which makes them important challenges for Pasifika peoples. The challenge of how these issues be addressed from a public health perspective will be no easy task, as it requires researchers and communities to work collectively. This approach is often time consuming, particularly in trying to understand and address the needs and benefits of both parties, and then to work in a genuine partnership to fulfil each partners' needs.

Holistic well-being is strongly associated with spiritual wellbeing for Pasifika people, because the health and wellbeing of an individual is often perceived as how well they serve their community, church, and pastor/minister. Many Pasifika people follow a religion and view themselves as created in the image of god⁴⁴, and thus, health and well-being must also address spiritual health, however that be measured (e.g., tithes, services to the pastor/minister). One participant summarised this theme:

...I think it has to be holistic. ... If we balance all those three [mental, physical, spiritual], that's what we call health. Some people they [are] healthy physically but mentally they [are] not healthy –spiritual and physical. So if those are balanced, then I think ... that's what we call healthy. Not people health physically, but mentally they not really good up there. ... start from your family only ... mum and Dad care by their children, the whole family to be healthy. Then it will come to society and then to the whole nation. And then come to Maori, Pacific communities. If they [think] holistically ... it has to be in there those three. It can't be individualised. [Participant 3, Male, Focus Group 1, Auckland]

Cultural lifestyle was also similar to the holisticspiritual well-being notion described above. However, it was viewed as a barrier to progressing health and well-being, because some cultural practices were deemed to limit material and financial resources of Pasifika families who were already in an impoverished position. One participant aligned it to that of an oppression:

... to see people under less oppressive religious and cultural practices. So like, fa'alavelave [i.e., in Samoan culture this means 'anything that interferes with normal life', and it refers to important events such as funerals, weddings, special birthdays, dedications, and Matai title ceremonies] ... I talked to families and it's just killing them you know. I'm not saying 'not' do it, but maybe some freedom in the area of spirituality and culture [is needed]. I don't know if you can do that, but it's probably one of my hopes that people have plenty more choice in how they express their culture or their religion. [Participant 2, Female, Focus Group 1, Auckland]

This was supported by another comment:

...Yes, I also say those ... things [are] affecting your health. Because if those things come into you, the cost of those things as well. It affects the cost of you to see the doctor and the cost of your family to buy good food and healthy food. [Participant 3, Male, Focus Group 1, Auckland]

... often people struggle with this cultural stuff like when they look at fa'alavelave. I heard a Samoan talk on fa'alavelave, it actually means a lot of love, but people often over-do it. So in terms of health and well-being and what we need to aspire to... What does it look like ... often when I look at the kids ... [how] does [it] with my kids.

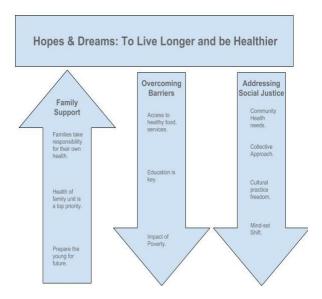
[Participant, Male, Focus Group 1, Auckland]

In summary, Pacific communities want the family to have better health for the future and this requires a family lifestyle that has a spiritual-physical-mental and work-family balance. Health and wellbeing starts from the

family unit and ripples out to the community. When financial security becomes affected due to cultural practices, this impacts poorly on the family's ability to be and to live in a healthy lifestyle.

Figure 2 illustrates the second major overarching theme: 'hopes and dreams – to live longer and be healthier'. This was the most common theme that was highly discussed across all focus groups. Three sub-themes underpin this major theme: (i) Family support (positive theme); (ii) overcoming barriers; and (iii) addressing social justice within the community.

Figure 2: Overcoming barriers to lead healthier lives in Pacific peoples



Family support is about prioritising the needs of the family as the highest priority (upward arrow) which must take on a balanced health and wellbeing approach. In particular, enabling the future provisions for the younger generation was paramount to ensure that their health and wellbeing is planned and sustainable. A line of conversation demonstrates this point:

...For myself we are looking at my mother's land and living off the grid. Family gardens, connecting with nature and using land and resource for Rongoa (Maori medicine so getting back and connecting with nature again). As we are aging my family we are looking at living together especially as our children are moving out. Our future is to live together, share and take care of one another. [Participant 2, Female, Focus Group 2, South Waikato]

"For the community. I mean it's the same I think that I try and push on my family which is still the physical and the nutrition part but I also realise that, that can't work solely by itself. It needs the whole support around it in terms of the spiritual, cultural and mental wellbeing around it and as much as I want to push my physical and nutrition side … I would want them [community] to be fitter and healthier in terms of nutrition, … I can keep pushing what I can, but until they're ready within themselves then changes aren't going to happen. [Participant 1, Focus Group 3, South Waikato]

Overcoming barriers is essential to understand how to attain the hopes and dreams of health and wellbeing. It is a downward facing arrow, because the barriers are not entirely controlled by the family, but related to systemic issues (described earlier). For Pasifika people, it includes having access to all materials, such as healthy food and services. The cost of these resources and the lack of availability were predominant factors for this sub-theme. This theme also relates to individual choices (subtheme one described above for overarching theme one), in particular, with any given knowledge and information, we need to understand how to make the right choices, in order to live well.

...My hope and my dream would be that doctor visits would be free. That they would be accessed at reasonable times. [Participant 1, Focus Group 2, South Waikato].

...I think one of my aspirations is that people have a choice to be healthy. In South Auckland where we have our youth, um we run a youth space, and I was thinking that I can go and buy healthy food cos we've got the money to go and buy healthy food. But a lot of our kids ... they don't. They choose really unhealthy things because it's cheap and maybe cos they like the taste now. ... I feel bad that I eat healthily and then when we are at youth we get a whole lot of cheap stuff because of the money available to us. So I've been thinking about how I want to give my kids healthy food at a reasonable price, so I don't know if you can make something out of that, but just that it's accessible to everybody [Participant 2, Female, Focus Group 1, Auckland].

The final sub-theme is addressing social justice issues, which is defined as 'achieving equitable distribution across a range of factors of wealth, opportunities, and privileges within society'⁴⁵. Similar to the above sub-theme, it is a downward arrow, because the barriers are less likely to be controlled by the family or at an individual level, and the nature of these issues are embedded from the systemic and deep-rooted issues, as highlighted by the first overarching theme. For

the participants of this study, to address social issues at a community-based level by 'understanding their needs' which includes shifting their mind-set from understanding health and wellbeing in order to address the different lifestyles, across the generations. Most participants expressed their desire to change their mind-set with the evolution of culture, because they are living within a dual-culture, and this requires a collective approach based on fairness, justice, taking on a posture of learning to identify and understanding the community needs, and to achieve a sense of belonging and ownership in the change-process. Examples of commentary included:

...I think it could be looked at from the other angle as well. ... just with the living in a low socioeconomic area the amount of takeaways and bad food available is because of legislation it's because they've allowed it to be, so our environment has been dictated to us because of legislation. If they start to tax and take away that kind of stuff it could be looked at from a different angle. [Participant 7, Female, Focus Group 2, South Waikato].

DISCUSSION

This is the first community-based study that has employed a co-design approach with a Pasifika peoples, particularly where the participatory process includes a partnership between the research team and stakeholders, whom both parties are actively involved in working collaboratively towards a common purpose, which is absent in the literature⁴². This paper will be an important guide for future researchers considering using this method.

Several important findings emerged from this qualitative study. Underpinning the first overarching theme of Pasifika health and wellbeing. It was clear from the focus groups that these concepts were strongly dependent on the wellbeing of the family unit, and not merely the individual state of being sick, diseased or suffering from illness. Furthermore, familycentred health was also described as being holistic in nature and including physical, mental, and spiritual wellbeing. It should be noted that wellbeing was not to be perceived as having an illness or disease, but rather the holistic and family-centred viewpoint considers 'wellbeing' to be a state of 'being' (e.g., feeling motivated to lead a healthier life), and 'health' was considered to be the state of 'doing' (e.g., having a work-life balance to lead a healthier life). Attaining this state of being and doing was considered essential elements of an environment that supports not just the family, but the community

as well to lead healthier lifestyles. Our finding aligns well with other established models of health that are Pacific-based^{21 39 46 47}. Even with the increase in the Pacific population who are New Zealand born (50%)⁴⁸ ⁴⁹ and who may not be living a traditional Island lifestyle, it still remains evident that a holistic and familyoriented approach to enhancing health and wellbeing is necessary for Pasifika communities in this current day and age. Moreover, Pasifika concepts of health and wellbeing that are familycentric and preventive measures that address a environmental variety of impacts information environment, urban environment)50, could achieve positive health changes¹⁷, which differs from the typical biomedical model that focuses only on the physical nature of health and disease¹⁷. Pasifika peoples' views lean more towards traditional and indigenous paradigms that include spirituality, and a connection with natural resources (e.g., land However, what is needed are agriculture)⁵¹. initiatives that require research partnerships with Pasifika communities. and these partnerships must work within or align with indigenous paradigms to meet the needs and ideals of Pasifika people.

Further resultant themes were attaining and consolidating knowledge and information, being educated and maintaining job security, which were perceived as basic human rights necessary to lead healthier lives. Recent work has highlighted that non-communicable disease causes, their determinants and outcomes 'can be framed around human rights principles, norms, and standards emphasizing equality, and nondiscrimination'52. Therefore, by harnessing the 'power of human rights' by addressing the social justice issues, action can be strengthened to prevention and build control of communicable diseases such as obesity. Pasifika peoples report 'more unmet need for health care', with cost being the most commonly identified barrier to accessing treatment⁶. Thus, empowering Pasifika communities to develop and lead community-based programmes at a local level could be effective, even essential, to supporting Pasifika populations to understand, identify, and support change in their behaviours and mind-set for better health and wellbeing. Previous work have shown to systematic models of working with and empowering Pasifika communities, in particular utilising the church for health promotion context deliverv¹⁹. However, there is little knowledge or evidence in how these models have effected behavioural change to improve health and wellbeing, or reduce the high rates of hospitalisations for various health conditions (e.g., respiratory and cardiovascular incidents)53.

Another key finding was having access to good quality food and the knowledge to inform individual choices. These were viewed as important drivers for obtaining balanced healthy lifestyle practices. Interestingly, programmes or a focus on weight management, body size or dietary intake were not a health priority for our Pasifika communities. This reiterates the ideas above regarding the need to tailor health programmes to Pasifika health concepts and ideals of health⁵⁴, and participation community affairs⁴¹ ⁴⁴. Other indigenous researchers have also reported that a focus on body size, diet and exercise are not significant drivers for engaging healthier lifestyles and positive change⁵¹. However, addressing the issues of accessibility to quality food and being empowered (through health education) to change the behaviours of those at risk of disease is a major public health challenge. Although there have been improvements in health services becoming more culturally responsive to the needs of Pasifika peoples, this has only addressed the tip of the iceberg. More understanding of how to improve the health outcomes for Pasifika peoples and their communities is essential. Simply having a responsive health system that is culturally more aware is not sufficient to improve the health and well-being of Pasifika peoples. We need to understand how to empower families and communities access services to environments that can support leading healthier lives. Shifting the typical health sector mind-set from an 'individualistic perspective' to one of 'collaborating with community partners' will be the way forward to rightfully address the perpetual state of Pacific health inequities¹⁷.

The second major overarching theme from this study was to identify 'how' to address the issues identified above either directly or indirectly, by examining the 'hopes and dreams' of Pasifika communities. The key theme driving this finding was 'to live longer and be healthier', and again this theme was heavily focused on the family unit, particularly in enabling the family to work and support each other. Previous research has urgently called for more culturally integrated programmes to combat the rising problems of lifestyle factors, specifically targeting Pacific children and their families55. piloted have family-oriented Others interventions focusing on promoting healthy behaviours, particularly while children are at home⁵⁶. Although those researchers reported significant differences in improved consumption of vegetables and a decrease in the unhealthy food intake, the intervention adopted a compulsory approach to maximise participant engagement from their participants. Therefore, it was not primarily a family-oriented approach, and the conforming framework does not align values Pasifika their well with and environmental infrastructure. On the other hand, community-based lifestyle intervention programme among Native Hawaiians, other Pacific Islanders was designed and developed community between six partners researchers. It included culturally relevant community-based health education sessions on eating, physical activity, and the programme actively involved family and community members as part of the healthy lifestyle plan²⁴ ⁵⁷. The pilot test of the nine-month intervention showed that 51% of Native Hawaiians and Pacific Islanders involved in the intervention achieved 3% or greater weight loss over 9 months, compared to only 31.4% of those using a standard behavioural programme (SBP, control group) which was a significant between-group difference (p=0.045). Also improvements in systolic blood pressure were associated with of initial body weight, and losing ≥3% greater intervention participants showed improvements in their physical functioning, as measured by a 6-minute walk test, than control participants⁵⁸⁻⁶⁰. The Hawaiian study is potentially the most culturally, integrated programme to date that is community-based involving family and community members as an in-built support structure as part of the intervention. Furthermore, it aligns to Pacific cultural systems where family play a critical role in decision-making²⁰. Thus, much is to be learnt from studies such as the Hawaiian study, and to be replicated among and, or adapted for Pasifika people residing in New Zealand.

Other emergent sub-themes included overcoming barriers related to cost and access⁶¹ 62. These are not new findings, but they continue to be common recurrent factors highlighted by Pasifika communities¹⁴ ¹⁵, which suggest that current and past approaches to alleviate these barriers for Pasifika people have not been effective or sufficiently addressed. From the communities' perspective, biomedical health models, the health system and services do not fit well or work for Pasifika communities. Previous qualitative research have also described how individualistic approaches existing inadequately aligned to indigenous understandings of health⁴⁴ ⁵¹. Moreover, in relation to these emergent themes, addressing social justice within Pasifika communities was also an important finding, particularly in addressing the health needs across Pasifika communities (e.g., generational health needs, youth vs elderly), and identifying ways to change the mind-set where the focus on family health needs to be developed and strengthened. Part of the solution would be to learn from international studies such as that described above²⁴ 57, whereby interventions have been culturally adapted into health programmes and then offered in communities to ensure they are more accessible to underserved populations, and enabling self-management of chronic diseases⁶³. Few studies have contextualised health issues populations in indigenous understand and identify potential areas, or how to use and explore this information to develop an informed approach to interventions that are community-based and community-driven. The partnering with communities and researchers from the start of any intervention development could potentially address [in part] the issue of shifting the mind-set (as identified by the participants), so that the focus on empowering the health of the family unit can be consolidated, and the knowledge acquired through that codesign process is an important catalyst for change⁵⁷. However, understanding how this approach can work in practice over a long period of time will require more investigative work.

Cultural practice was identified as a major burden and a barrier to improve the health of Pasifika families. This is a sensitive, yet highly relevant issue because it ties in with financial hardship for families who view their church as the focal point for daily life. Providing money to their church was a natural outcome, particularly when families lose ties with their villages in the islands, and supporting the church is a natural instinct. However, this comes at a huge cost to families who cannot live independently and provide their basic needs and wants for their children and elderly members. Over 80% of Pacific peoples in NZ are affiliated with at least one religious organisation, and they predominantly people aged over 15 years of age⁴⁸, who are representative of the working age group. Pacific people contributions to the church is a common and vital social practice⁶⁴. It has been reported that families are often donating more funds than they can afford, and that Pacific families are particularly vulnerable to debt accumulation due to various characteristics, with the important ones namely: high unemployment and low-paying jobs, limited knowledge and skills in financial management, and living in multi-family households⁶⁵. Valins (2004) reported that four major consequences of debt for Pacific families include: financial hardship, poor health, family stress and social exclusion, and barriers to employment⁶⁶. To address this issue, a holistic approach will be necessary, as well as harnessing the strengths of the Pasifika community to be involved, particularly as the community is evolving with the younger generation building better knowledge capacity

through education. The church also needs to evolve to understand the modern needs of social pressures on their communities, and be proactive in enabling families to be healthier and independent. Additionally, interventions need to be developed with an awareness of community-sustainability to ensure that they are low cost or free, and easily accessible to all.

LIMITATIONS

Pasifika communities in this study may not be representative of the general Pacific peoples in NZ. However, the community participants represented both urban and rural communities, including youth, adult and older groups. Furthermore, as Pasifika people are not a homogenous group, it should be remembered that the ethnic and national diversity across the many Pacific Island groups may not represented in this study and readers are encouraged to be mindful of the lack of diversity indicated in this paper. Finally, the qualitative work presented here is based on a small sample and it is possible that the majority of participants were different to the general Pasifika population (e.g., health workers, regular community services users), and therefore their perspectives may differ to that of the general Pasifika peoples, and the meaning of health and wellbeing may be dynamic according to each community.

CONCLUSION

This study suggests that in order to address the health and wellbeing of Pasifika peoples living in NZ, it requires a Pasifika worldview on understanding these concepts from a Pasifika perspective. Pasifika families and communities continue to function and socialise according to their cultural values and principles, thus familycentric and holistic approaches were found to be important drivers in understanding their health needs, and overcoming longstanding barriers and inequalities. The findings from this study as a result of the qualitative nature and the codesign approach had provided a more informed knowledge base of co-developing an intervention programme with the community partners, and this is an important step for building and tailoring indigenous interventions.

Funding

This project was funded by the Healthier Lives *He Oranga Hauora* National Science Challenge of New Zealand.

Author Contributions

RF compiled the manuscript, conducted a thematic analysis of the transcripts, SD, TF, AH, MV carried out the data collection and the initial analyses, and validated the final interpretation of the analyses. JG, AJ, RW, LTM, CNM assisted with the interpretation of the analyses and the final write-up of the manuscript.

Competing Interests

No potential conflict of interest was reported by the authors.

Acknowledgement

We would like to thank all the community participants (anonymised) involved in the study. Without their participation, this research would not have been possible. Furthermore, we would like to acknowledge our Maori community partners community (anonymised).

REFERENCES

- 1. Ministry of Health. Tagata Pasifika in New Zealand. 2016 [http://www.health.govt.nz/our-work/populations/pacific-health/tagata-pasifika-new-zealand.]. accessed 28/6/2016.
- 2. Ministry of Health. Annual Update of Key Results 2015/16: New Zealand Health Survey. Wellington: Ministry of Health, 2016.
- 3. The role of advertising and promotion in the marketing of tobacco products. Preventing Tobacco Use Among Young People: A Report of the Surgeon General. Washington, DC: US Government Printing Office 1994.
- 4. Final S, Tukuitonga C, Finau E. Health of Pacificans in Aotearoa. Pacificans and Health. Auckland: Pacific Health Research Centre, 2003.
- 5. Foliaki S, Pearce N. Prevention and control of diabetes in Pacific people. *Bmj* 2003;327(7412):437-39. doi: 10.1136/bmj.327.7412.437
- Ministry of Health. Annual Update of Key Results 2014/15: New Zealand Health Survey Wellington: Ministry of Health; 2015 [http://www.health.govt.nz/publication/an nual-update-key-results-2014-15-newzealand-health-survey]. accessed 9/7/2016.
- 7. Pollock N. Obesity of large body size? A study in Wallis and Futuna. *Pacific Health Dialog* 2001;8(1):119-23.

- 8. Metcalf P, Scragg R, Willoughby P, et al. Ethnic differences in perceptions of body size in middle-aged European, Maori, and Pacific people living in New Zealand. *Int J Obes Relat Metab Disor* 2000;24(5):593-9.
- 9. Teevale T. Body image and its relation to obesity for Pacific minority ethnic groups in New Zealand: a critical analyses. *Pacific Health Dialog* 2011;17(11):33-53.
- 10. Durie M. Topic Ten: Diabetes. Maori Health Foundations Book of Readings. Palmerston North: School of Maori Studies, Massey University 2002.
- 11. Herdt G, Leavitt SCE. Adolescence in Pacific Island societies. Pittsburgh: University of Pittsburg Press 1998.
- 12. Resnick Md BPSBR, et al. Protecting adolescents from harm: Findings from the national longitudinal study on adolescent health. *JAMA: The Journal of the American Medical Association* 1997;278(10):823-32. doi: 10.1001/jama.1997.03550100049038
- 13. Sua'ali'i-Sauni T, McTaggart S, von Randow M. Pacific families now and in the future: a qualitative snapshot of household composition, wellbeing, parenting and ecnomic decision-making among Pacific families in Auckland 2008. In: 2 R, ed. Wellington: Families Commission, 2009.
- 14. Ministry of Health. Factors affecting Pacific peoples' health Wellington2010 [http://www.moh.govt.nz/moh.nsf/indexmh/pacifichealth-health-factors]. accessed 2/07/2010.
- 15. Ministry of Health. Tupu ola moui: Pacific health chart book 2012. Wellington: Ministry of Health 2012.
- 16. Schluter P, Tautolo E-S, Paterson J. Acculturation of Pacific mothers in New Zealand over time: findings from the Pacific Islands Families study. *BMC Public Health* 2011;11(1):307.
- 17. Statistics New Zealand, Ministry of Pacific Island Affairs. Pacific Progress: Demographics of New Zealand's Pacific population. Wellington: Ministry of Pacific Island Affairs, 2010.
- 18. Statistics New Zealand. Census quickstats about national highlights. Wellington: Statistics New Zealand, 2013.
- 19. Counties Manukau District Health Board. Pasefika LotuMoui Health Programme. Manukau City: Counties Manukau District Health Board, 2010.

- 20. Tipene-Leach D CK, Abel S, Pāhau H, Ehau T, Mann J,. Ngāti and healthy: translating diabetes prevention evidence into community action. *Ethnicity & Health* 2013;18(4):402-14.
- 21. Tuitahi S. Fanau Ola: A Pasifika perspective on Whanau Ora. In: Agency HP, ed. Auckland: HPFoN, 2011.
- 22. Hosey G AN, Statterfield D, et al., . The Culture, Science of Type 2 Diabetes Prevention in the US Associated Pacific Islands. *Preventing chronic disease: public health research, practice and policy* 2009;6(3):A104.
- 23. Hurst S, Nader P. Building community involvement in cross-cultural Indigenous health programs. *International Journal for Quality in Health Care* 2006;18(4):294-98.
- 24. Kaholokula JK, Kekauoha P, Dillard A, et al. The PILI 'Ohana Project: A community-Academic partnership to achieve metabolic health equity in Hawai'i. *Hawai'i Journal of Medicine & Public Health* 2014;73(12 Supplement 3):29-33.
- 25. Ni Mhurchu C TML, Firestone R, Whittaker R, Jull A, Grey J,. Supporting Healthy Lifestyles: a Maori and Pasifika approach (WellText) Auckland: Univesity of Auckland; 2015 [https://healthierlives.co.nz/research/maori-and-pasifika-health-approach/].
- 26. Israel BA, Schulz AJ, Parker EA, et al. Review of community-based research: assessing partnership approaches to improve public health. *Annu Rev Public Health* 1998;19:173-202.
- 27. Israel BA, Schulz AJ, Parker EA, et al. Community-based participatory research: policy recommendations for promoting a partnership approach in health research. *Educ Health* 2001;14(2):182-97.
- 28. Garfield SA, Malozowski S, Chin MH, et al. Considerations for diabetes translational research in real-world settings. *Diabetes Care* 2003;26:2670-4.
- 29. Ammerman A, Corbie-Smith G, St George DM, et al. Research expectations among African American church leaders in the PRAISE! project: a randomized trial guided by community-based participatory research. *AJPH* 2003;93(1720-7)
- 30. Boyer BB, Mohatt GV, Pasker RL, et al. Sharing results from complex disease genetics studies: a community-based participatory research approach. *Int J Circumpolar Health* 2007;66(19-30)

- 31. Correa NP, Murray NG, Mei CA, et al. CAN DO Houston: a community-based approach to preventing childhood obesity. *Prev Chronic Dis* 2010;7:A88.
- 32. Farag NH, Moore WE, Thompson DM, et al. Evaluation of a community-based participatory physical activity promotion project: effect on cardiovascular disease risk profiles of school employees. *Womens Health Issues* 2010;20:219-26.
- 33. Mohatt GV, Plaetke R, Kliejka J, et al. The Center for Alaska Native Health Research Study: a community-based participatory research study of obesity and chronic disease-related protective and risk factors. *Int J Circumpolar Health* 2007;66:8-18.
- 34. Pazoki R, Nabipour I, Seyednezami N, et al. Effects of a community-based healthy heart program on increasing healthy women's physical activity: a randomized controlled trial guided by Community-based Participatory Research (CBPR). *BMC Public Health* 2007;7:216.
- 35. Reininger BM, Barroso CS, Mitchell-Bennett L, et al. Process evaluation and participatory methods in an obesity-prevention media campaign for Mexican Americans. *Health Prom Prac* 2010;11(347-57)
- 36. Wilcox S, Parra-Medina D, Felton GM, et al. Adoption and implementation of physical activity and dietary counseling by community health center providers and nurses. *J Phys Act Health* 2010;7:602-12.
- 37. Abuse NIoA, Alcoholism. State of the Science Report on the Effects of Moderate Drinking.
- 38. Statistics New Zealand. Census 2013 Wellington: Statistics New Zealand; 2013 [http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-culture-identity/pacific-peoples.aspx]. accessed 9/7/2016.
- 39. Pulotu-Endemann K. Fonofale Model of Health. Auckland: Health Promotion, 2001.
- 40. Mental Health Commission. Pacific Mental Health Services and Workforce: Moving on the Blueprint. Wellington: Mental Health Commission, 2001.
- 41. Firestone RT TH, Tevita G, Henderson J, Schlser M, Kaholokula K, Ellison-Loshmann L,. Pasifika Youth Empowerment Programme: a potential public health approach in long-term prevention of obesity-health related issues. *AlterNative: an international journal of indigenous peoples* 2018;14(1):63-72.

- 42. Eyles H, Jull A, Dobson R, et al. Co-design of mHealth Delivered Interventions: A Systematic Review to Assess Key Methods and Processes. *Current Nutrition Reports* 2016:1-8. doi: 10.1007/s13668-016-0165-7
- 43. World Health Organization. Constitution of the World Health Organization. Geneva: World Health Organization, 1948.
- 44. Firestone R, Tuisano H, Manukia M, et al. Understanding Pasifika youth and the obesogenic environment, Auckland & Wellington, New Zealand. *NZ Med J* 2016;129 (1434):23-35.
- 45. United Nations. Social Justice in an Open World: The role of the United Nations. New York: United Nations, 2006.
- 46. Kupa K. Te Vaka Atafaga. *Pacific Health Dialog* 2009;15(1):156-63.
- 47. Tapu-Ta'ala S. Making the transition to insulin therapy: Experiences of Samoa people with Type 2 Diabetes in New Zealand. Victoria University of Wellington;, 2011.
- 48. Statistics New Zealand. QuickStats about Pacific peoples: 2006 Census. Wellington: Statistics New Zealand, 2010.
- 49. Statistics New Zealand. National Ethnic Population by Age and Sex at 30 June 1996, 2001, 2006. Wellington: Statistics New Zealand, 2012.
- 50. World Health Organization. Global Strategy on Diet, Physical Activity and Health Geneva: World Health Organization, 2004.
- 51. Bell R, Smith C, Hale L, et al. Understanding obesity in the context of an Indigenous population a qualitative study. *Obes Res Clin Pract* 2017 doi: http://dx.doi.org/10.1016/j.orcp.2017.04.0
- 52. Gruskin S, Ferguson L, Tarantola D, et al. Noncommunicable Diseases and Human Rights: A Promising Synergy. *American Journal of Public Health* 2014;104(5):773-75. doi: doi: 10.2105/AJPH.2013.301849
- 53. Novak B. Ethnic-Specific Health Needs Assessment for Pacific People in Counties Manukau. Manukau City: Counties Manukau District Health Board, 2007.
- 54. Firestone R. Circuit breaker. *Journal of Urgent Writing* 2016;1(1):100-08.
- 55. Oliver M, Schluter P, Paterson J, et al. Pacific Islands Families: Child And Parental Physical Activity and Body Size—design and methodology. *122* 2009;1298:48-59.

- 56. Duncan S, McPhee JC, Schluter P, et al. Efficacy of a compulsory homework programme for increasing physical activity and healthy eating in children: the healthy homework pilot study. *International Journal of Behavioral Nutrition and Physical Activity* 2011;8:127-36.
- 57. Kaholokula JKa, Mau MK, Efird JT, et al. A Family and Community Focused Lifestyle Program Prevents Weight Regain in Pacific Islanders: A Pilot Randomized Controlled Trial. *Health Education & Behavior* 2012;39(4):386-95. doi: 10.1177/1090198110394174
- 58. Kaholokula JK, Saito E, Mau K, et al. Pacific Islanders' perspectives on heart failure management. *Patient Educ Couns* 2008;70:281-91.
- 59. Kaholokula JK, Townsend C, Sinclair K, et al. Sociodemographic, behavioural, and biological variables related to weight loss in native Hawaiians and other Pacific Islanders. *Obesity* 2013;21(3):E196-203.
- 60. Mau MK, Kaholokula JK, West MR, et al. Translating diabetes prevention into native Hawaiian and Pacific Islander communities: the PILI 'Ohana Pilot project. *Prog Community Health Partnersh* 2010;4(1):7-16.

- 61. Habour Sport. Choose Change for a healthier me. Wellington: Ministry of Health, 2015.
- 62. Wood A, Johnson M. Green prescription Active Families Survey Report. Western Bay of Plenty: Research New Zealand, 2016.
- 63. Sinclair KIA, Thompson C, Makahi EK, et al. Outcomes from a diabetes self-management intervention for Native Hawaiians and Pacific People: Partners in Care. Annals of behavioral medicine: a publication of the Society of Behavioral Medicine 2013;45(1):24-32. doi: 10.1007/s12160-012-9422-1
- 64. Auckland Council. Exploring Pacific Economies: wealth practices and debt management. Auckland: Auckland Council, 2015.
- 65. Anae M, Coxon E, Lima I, et al. Pacific consumers' behaviour and experience in credit markets, with particular reference to the 'fringe lending' market: research findings report and government's response strategy. Wellington: Ministry of Consumer Affairs 2007.
- 66. Valins O. When Debt Becomes a Problem: A Literature Study. Wellington: Ministry of Social Development, 2004.

