Using Talanoa to explore Pacific participants experiences of Education sessions provided in Pulmonary Rehabilitation (PR) in Counties Manukau Health (CMH)

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Abstract

Pulmonary rehabilitation (PR) is a multidisciplinary comprehensive programme for people with chronic lung diseases that focuses on exercise and education to guide the self-management of the symptoms that come with chronic lung conditions. While extensive research into the benefits of the physical component of PR has proven its effectiveness, there is only limited literature on the education component. However, considering that New Zealand's Healthcare system has a long history of conceptualising health programmes from a Western point of view, thereby often alienating those from different cultural backgrounds, a closer look at how the PR education component is run seems relevant.

One of the largest non-Western communities in New Zealand are Pacific people. This group is disproportionately affected by social determinants of health and are more likely not to engage with chronic health education programmes. This thesis utilises *Talanoa* and other Pacific concepts to gain a deeper understanding of Pacific participants experiences of PR at Counties Manukau Health (CMH), the area with the highest Pacific population in New Zealand. The PR sessions, which consist of one hour of exercise and 30 minutes of group education using a predominantly Western-focused approach to deliver the group sessions held by clinicians, on various respiratory health and wellbeing topics.

Based on the data collected for this study, this study identifies 'Pacific learner' attributes and the barriers and facilitators of Pacific learners being able to engage and access PR education sessions. The study also features participants' feedback on the topics covered. Overall, the findings suggest that the Pacific values and concepts such as '*Teu Le Va*' and the *fonofale model* are essential approaches to collaborating with Pacific learners and delivering education that will address their health needs from a holistic perspective, in addition to providing learning materials and tools that facilitate their learning best.

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Attestation of Authorship

"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning."

15th February 2024

Signature | Date

Co-Authored Works

Chapter 2: Literature review **(Manuscript submitted, awaiting review)** **An overview of culturally adapted health education programmes for Pacific People: A Narrative review. Stewart-Tuiletufuga, J,. Mohammed, J. & Vaka, S.**	**Stewart-Tuiletufuga: (80%)** Completed the literature search, conducted the narrative review**,** and analysed relevant research and developed themes, wrote the manuscript**,** and submitted to the journal. **Mohammed: (15%)** Provided supervision over the review steps, provided feedback on manuscript drafts, collaborated on theme development. **Vaka: (5%)** Provided feedback on manuscript draft.
Chapter 5: Findings Chapter **(Manuscript prepared and close to submission)** **Exploring the experiences of the 'Pacific learner" within Pulmonary Rehabilitation in Counties Manukau. Stewart-Tuiletufuga, J,. Mohammed, J. & Vaka, S.**	**Stewart-Tuiletufuga: (80%)** Conceived the study, submitted the ethics and localities applications, conducted the interviews, transcribed the interviews, analysed the data, drafted the manuscripts, **Mohammed: (15%)** conceived the study, provided supervision of the study (oversight and supervision responsibility), collaborated on analysis of the data, provided feedback on manuscript drafts. **Vaka: (5%)** Conceived the study, provided supervision of the study, collaborated on the study design aspect of the study**.** Provided feedback on manuscript of drafts.
Signed:	**Stewart-Tuiletufuga:**  **Mohammed:**  **Vaka:** 

Acknowledgements

Tatalo (Prayer)

O le Vi'iga I le Tama, ma le alo, ma le agaga paia.

(Glory be to the father, and to the son and to the holy spirit)

E pei o Lona Vi'iga sa I le amataga, e fa'apea fo'I I ona po nei ma asouma e fa'avavau, fa'avavau lava

(as it was in the beginning, is now and ever shall be, world without end)

Amene

(Amen)

A massive thank you first and foremost to all the participants and Pacific advisors in this study who gave their time, knowledge and wisdom, and shared vulnerability for the betterment and development of the future pacific participants that will attend pulmonary rehabilitation. Especially the participants, I felt privileged to hear your stories and pray that these stories will make impactful changes in the delivery of health care.

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I am always reminded of the Samoan proverb ***"o le tele o sulu e maua ai figota, e mama se avega pe a ta amo fa'atassi",*** which translates to my strength does not come from me alone but from many. So to all my *aiga*, especially my mum, my mother and father in law, and my grandparents, I would not be here or have been able to persevere without all of your support, whether it was helping me with my kids, making

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Confidential Material

This thesis has been submitted as a manuscript two format, there are two manuscripts which are either submitted awaiting review or about to be submitted. There is an ‘embargo form’ which has been submitted with this thesis for a period of 12 months. The reason for confidentiality is to avoid jeopardising the future intellectual property rights of the authors on these two manuscripts mentioned earlier.

Ethics Approval

Ethics approval was approved by Auckland University of Technology Ethics Committee (AUTEC) for: 21/442 Using *talanoa* to explore Pacific participants experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health (CMH). Ethics application has been approved for three years until 7 March 2025.

Chapter 1 Introduction and overview

1.1 Background

This thesis uses a qualitative approach to explore the experiences of Pacific participants (PP) in the pulmonary rehabilitation (PR) health education programme at Te Whatu Ora Counties Manukau Health (hereafter referred to as CMH), formerly known as Counties Manukau Health (CMH), to understand the barriers and enablers that have affected their access and participation in the education component of the programme. This chapter introduces the research by providing an overview of PR with a focus on the CMH programme. To set the scene for the study and to illustrate the significance of undertaking this research project, this chapter presents an overview of the history of Pacific health in Aotearoa New Zealand (NZ) and the current issues related to the health of Pacific people in Aotearoa NZ. The term Aotearoa NZ has been intentionally used to incorporate the indigenous naming of NZ. In addition, this chapter provides current Pacific statistics in comparison to other ethnicities regarding health outcomes at CMH. Finally, the researcher's positionality and organisation of the chapters are discussed.

This thesis uses the terms ‘Pacific’ or ‘Pacific people’ to describe various cultures and islands within the Pacific Ocean. It is acknowledged that even though only one word is used to encapsulate these vibrant cultures, they are not all the same and have differences and individual histories. However, they also have similarities regarding common cultural values and shared experiences within an Aotearoa NZ health context. Within the context of this thesis, the term Pacific people encapsulates anyone from the Pacific, irrespective of ethnicity. In addition, the term Pacific participants (PP) will refer to the actual participants in this study. The views in this thesis draw on the shared cultural values to make recommendations for a PR health education programme to help deliver culturally responsive services and improve Pacific health outcomes.

1.2 Pacific health outcomes and inequities

Pacific peoples in the ‘Aotearoa NZ context’ share an ancestral connection to the indigenous people of Aotearoa NZ (Māori) through the *Moana a Nui a Kiwa* (the greater oceanic connections) (Gray & Crichton-Hill, 2019; Matika et al., 2021). This

shared connection of the sea has been communicated through *Talanoa* and legends that have been passed down through generations (Gray & Crichton-Hill, 2019; Matika et al., 2021). It tells of the island Hawaiki's origin and the Pacific people's voyages from this mother island to other Pacific islands, which now have their distinct languages, cultural norms, and identities (Gray & Crichton-Hill, 2019; Matika et al., 2021). These voyages led the Pacific people to Aotearoa NZ where the *tangata whenua* (people of the land) developed their own culture, language, harvested food sources from the land, and cultivated medicinal healing practices (Gray & Crichton-Hill, 2019; Matika et al., 2021).

Unfortunately, as a direct consequence of Aotearoa NZ becoming a member of the British Empire, Māori have experienced systematic discrimination that resulted in a catastrophic loss of culture and they still suffer the consequences of colonisation to this day, particularly regarding their health outcomes (Gray & Crichton-Hill, 2019).Understanding the history of Māori and their relationship with the government helps to build an understanding of Pacific people and their subsequent relationships with the government and the effects that this has had on their health outcomes in Aotearoa NZ (Gray & Crichton-Hill, 2019; Matika et al. 2021).

Pacific communities have had a tumultuous relationship with the NZ government, where they faced prejudice through targeted policies (Vea, N.d.). This was known as the “dawn raids”. Pacific people started to migrate to Aotearoa NZ in the 1960s-1970s, driven by NZ’s economic expansion and the need for labourers to undertake jobs that the NZ population did not want to fulfil (Vea, N.d.). A downward economic spiral around 1974 led to the government’s revision of the immigration policy. This led to a harsher stance against those overstaying their visas, an issue previously ignored when the demand for unskilled labourers was high (Vea, N.d.). The government’s racial targeting of Pacific families during their anti-immigration campaigns blamed them for the rising unemployment and labelling them as problematic communities (Vea, N.d.). Recent governments have acknowledged this, and a formal apology has been made (Ardern, 2021). However, this relationship has resulted in a lack of trust between Pacific communities and the government and has had a significant knock-on effect regarding socioeconomic determinants of health (SDH) and accessing health (Gray & Crichton-Hill, 2019).

The knock-on effect of this relationship has been reflected in the statistically significant gaps between Pacific and Māori and their European counterparts in terms of health outcomes. In 2023, the Ministry of Health (2023) has set up the Te Mana Ola: The Pacific Health Strategy 2023, which is aimed at improving Pacific health outcomes in Aotearoa NZ. It outlines that the Pacific population accounts for approximately 9% of the Aotearoa NZ population and is set to grow exponentially, with recent statistics showing a 38% increase in the Pacific population in Aotearoa NZ over the last 15 years, with approximately 33% of those being under the age of 15 years old (Ministry of Health, 2023). This may have potential implications for the future health of Pacific peoples, with the risk of non-communicable diseases (NCDs) such as obesity related diseases, likely to affect a larger proportion of Pacific people, with the rise in population. Unfortunately, at the moment, 19% of the Pacific population currently live with some form of disability and are three times more likely than European people to have diabetes (Ministry of Health, 2023). Living with disability related to NCD, may impact the quality of life and therefore participation in occupations and with family. These are not the only unfavourable statistics available, but the rise in NCDs such as respiratory diseases, heart related conditions, and obesity have contributed to a lower life expectancy among the Pacific population of Aotearoa NZ compared to European ethnicities (Ministry of Health, 2023). Statistics for life expectancy for Pacific women average 80.4 years and Pacific males averaging 76.3 years old, while European women average 84.5 years and European males 81 years old (Baker et al. 2013; Ministry of Health, 2023).

The socially discriminatory policies of past governments have led to persistent social inequities that cause lower health outcomes among Pacific people. These inequities, which are described below, are also considered SDH and are used by medical professionals to identify those at risk (World Health Organization, 2023). SDH are non-medical factors that may influence health outcomes (World Health Organization, 2023). Non-medical factors could include unemployment, poor access to education, overcrowded and damp housing, lower socioeconomic status and more (World Health Organization, 2023). These SDH could lead to poorer access to health services, reduced health literacy and a higher risk of poverty related diseases (World Health Organization, 2023).

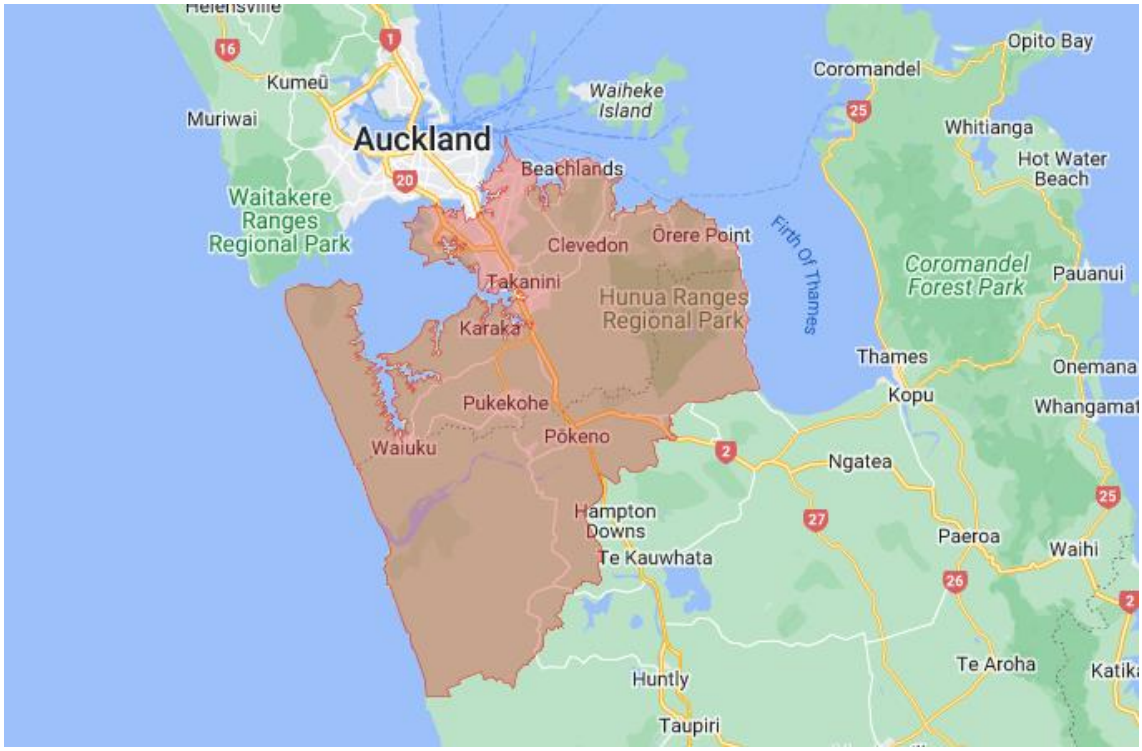
The SDH factors that Pacific people are overrepresented in include higher unemployment rates at 5.4% compared to 2.9% for Aotearoa NZ Europeans (Ministry of Health, 2023). In addition, Pacific people are more likely to live in dwellings without basic amenities at 17.3% versus 5.6% for Aotearoa NZ Europeans (Ministry of Health, 2023). Sadly, Pacific children are also more likely to live in material hardship compared to Aotearoa NZ Europeans at 25.6% compared to 7.6% (Ministry of Health, 2023). These factors highlight the disparities which have significant implications for the health and wellbeing of Pacific families in Aotearoa NZ (Ministry of Health, 2023; Statistics Aotearoa NZ, 2013).

1.3 Counties Manukau Pacific population

Auckland is home to the largest proportion of Pacific people in Aotearoa NZ, at approximately 260,400 Pacific people (Ministry of Health, 2023). Counties Manukau is located in Auckland, Aotearoa NZ and covers areas highlighted in red in Figure 1 below. It is home to the highest density of Pacific people, with 59% of those living in Mangere-Otahuhu, 46% of those living in Otara-Papatoetoe and 36% in Manurewa identifying as Pacific (Auckland Council of Research and Evaluation, 2020).

Figure 1

Map of Counties Manukau



Note. Counties Manukau and CMH cover the same geographical area. Image sourced from Google Maps from a public domain.

In CMH, the health disparities and social inequities faced by Pacific people reflect a similar pattern to the national health statistics, with Pacific people having a younger population and larger social and health inequities compared to Aotearoa NZ European peoples (Counties Manukau Health, 2018). In 2015, the life expectancy of Pacific people in CMH averaged 76.6 years compared to Aotearoa NZ European people at 83.6 years old; while this represents an increase of 1.9 years since 2006, there is still a seven-year gap (Counties Manukau Health, 2018). Approximately six per cent of Pacific people in CMH live with a disability. However, statistics suggest this number is a gross underrepresentation as it is based on the number of those who apply for disability funding and does not unpick the complexities of access to services and inequitable healthcare funding (Counties Manukau Health, 2018). A significant contributor to Pacific health in CMH is household deprivation and overcrowding, with close to 50% of Pacific people living in overcrowded houses, 10% of Pacific people in CMH are unemployed compared to 3.4% for European people and more than 60% receive lower incomes (less than 30,000 a year) (Counties Manukau Health, 2018). As mentioned above, all these factors highlight the importance of undertaking research to improve Pacific health outcomes and wellbeing.

1.4 Significance of research

This thesis focuses on Pacific experiences with the education component of PR, a multidisciplinary (MD) comprehensive programme deemed in literature to be a gold standard rehabilitation programme for people with chronic lung conditions (Lung Foundation Australia, 2021). Rehabilitation is focused on a mixture of exercise and education as it aims to guide and enhance self-management (SM) of the common symptoms that often affect meaningful and essential activities of daily living (ADLs) (Lung Foundation Australia, 2021).

To join a PR programme, a participant must generally have a chronic lung condition and be referred by a health professional to be assessed by a MD team (Lung Foundation Australia, 2021). At CMH, this consists of a respiratory physiotherapist, a respiratory nurse, a respiratory doctor and, at some sites, a physiotherapy assistant.

At their initial assessment, which is typically one-and-a-half hours long, a joint assessment occurs where suitability and safety are assessed, and patient goals and expectations are discussed.

The literature is varied and based on the information reported in different research studies, the programme can involve six to 12 weeks of both exercise and education twice a week, with education sessions usually consisting of a didactic teaching type of approach with education provided to participants in a group setting (Collins, 2004; Roberts et al. 2018). The PR programme at CMH runs over eight weeks, with two sessions a week. The exercise component comprises of a mixture of cardiovascular and strength-based exercises over one hour and individualised by the MD team to suit the participant's fitness level. A 30-minute education session pre or post exercise class is given by different speakers on topics identified by the CMH team and based on the Chronic Obstructive Pulmonary Disease (COPD) NZ and Australia guidelines. Rehabilitation can be accessed generally once every two years, where participants can be re-referred for refreshers, and some areas do provide maintenance classes.

Exercise has been found to significantly improve some of the common symptoms that affect people with chronic lung conditions, such as reducing breathlessness, improving mood and overall increasing exercise capacity, which has a positive effect on essential and meaningful participation in ADLs such as showering, dressing, and eating (Lung Foundation Australia, 2021; Roberts et al., 2018). However, although education has been suggested in the gold standard guidelines to be included in PR, there is a lack of evidence to indicate that attending these sessions leads to better health outcomes and even less proof to show the sessions help Pacific people (Roberts et al. 2018).

A recent integrative review of the literature exploring the role of education in PR and the effects on health outcomes for participants with COPD found that there is some benefit to providing education in PR, as education is an essential step in behaviour change to support understanding and SM of chronic respiratory disease (Chiyesu & Rassmussen, 2021). Unfortunately, there is insufficient evidence to support the efficacy of education solely on health outcomes in PR (Chiyesu & Rassmussen, 2021). One of the ongoing debates within the literature is how we measure or evaluate the education component for people attending PR, making it difficult to ascertain the

effectiveness of health outcomes (Chiyesu & Rassmussen, 2021). Measuring and evaluating the effectiveness of education can be particularly difficult in culturally diverse populations such as Pacific people in CMH as the SDH heavily impact Pacific people's health and wellbeing, which directly affects their ability to access and engage in education (Chiyesu & Rassmussen, 2021).

Recent data collected by Candy et al. (2020) looked at the predictors and characteristics of participants who completed PR in CMH. The main findings suggest that if you were European, had a higher six-minute walk test at the start of the programme, and were older, you were more likely to complete the programme (Candy et al. 2020). This raises questions why Aotearoa NZ European participants were more likely to complete the programme and what barriers Pacific people' must overcome to complete the programme, especially considering that CMH is home to many Pacific people (Candy et al. 2020).

In addition to this, evidence suggests that one contributing factor to poor SM is lower health literacy (Lilo, Tautolo & Smith, 2020). The Aotearoa NZ Ministry of Health (MOH) (2010) defined health literacy as "the degree to which individuals have the capacity to obtain, process and understand basic health information and services in order to make informed and appropriate health decisions" (p. 1). In the context of Pacific people, the literature suggests that low health literacy levels are higher in Pacific populations, with up to 90% of Pacific people over 15 having lower health literacy than the rest of the population (Lilo, Tautolo & Smith, 2020). This highlights the vital role of health services in considering the delivery of health education programmes to Pacific people which are culturally appropriate to encourage the uptake and adoption of health strategies (Lilo, Tautolo & Smith, 2020).

Social determinants of health significantly contribute to Pacific people's health inequities (Oates et al., 2017; Lilo, Tautolo & Smith, 2020). Social deprivation in South Auckland is higher than in other areas within the wider metropolitan Auckland city, with approximately 45% of children living in South Auckland living in low socio-economic deprivation (Counties Manukau Health, 2020). Literature examining the SDH and adherence to PR found a correlation between socioeconomic deprivation and moderate adherence to the programme (Oates et al. 2017). Thus, SM education should

adopt a holistic approach and consider exploring barriers and enablers in consultation with Pacific people in specific communities to improve their overall health and wellbeing (Oates et al., 2017). The research questions and objectives discussed below were developed based on the information gathered in this literature review.

1.5 Researcher positionality and interest in the research

It is important for researchers to discuss their worldview and reflect on their positionality as being aware of one's own biases helps overcome them (Manohar et al., 2017). Moreover, being transparent about the researcher's underlying assumptions about the data and the world helps readers better understand the analysis and critically examine it accordingly (Manohar et al., 2017).

Intertwined: Being afakasi

"My Samoa

Allows me to traverse

Between the worlds of two

A transient nature

Used as a blessing, not a curse.

It forgives that which I do not know

And have yet to learn

It grants the permission

For room to grow."

(Taylor, 2008)

This excerpt from a Pacific poet Grace Taylor encapsulates my journey as an *afakasi* Samoan and palagi (European) woman. *Afakasi* (half-caste) is a Samoan term often used to describe those of mixed ethnicity, and in my experience, it has often had a negative connotation when used in Pacific communities. I have struggled with being torn between a Western-centred *Palagi* world and a Pacific worldview as my mother

was of mostly European ethnicity and my father was full Samoan. I am grateful that my mother, a single mother, encouraged my sibling and me to embrace our culture and learn more about who we are and where we come from. My mother did this by enrolling me and my brother into an "*Aoga fa'asamoa*" (Daycare or school) in Richmond Rd, Grey Lynn. At this daycare we were immersed in Samoa's culture, language, and food. I can still remember participating in cultural performances, and church plays, and the loving nature of all the teachers who looked after us and who, to this day, I still hold warm and loving memories of in my mind.

Unfortunately, we then moved into an English medium school, and because my mother could not speak Samoan, we lost the language and cultural knowledge we had gained. As I transitioned into a teenager, this pushed me to explore spaces where I could continue my journey into learning and embracing my culture, and one of the things I did was join the Samoan cultural group at school, which participated in a cultural festival, Polyfest, every year. This is where I could authentically be myself whilst learning and developing the culture, values, and ways of doing things. It was also where I realised how important culture and feeling a sense of belonging was to my identity and its effects on participating and engaging in the world. I am still on a journey to learn more about my culture as a Samoan woman. However, I am aware that I am also in a privileged position to be able to advocate for Pacific people in healthcare. It seems that in this case, being afakasi is an advantage as it allows me to navigate and advocate between my cultures. This is a unique attribute worth celebrating.

Anecdotally, my role and experience as a Samoan physiotherapist within CMH for nearly ten years has opened my eyes to the inequities that Pacific people face in the health system. Hearing colleagues' and health professionals' unconscious biases and comments towards disadvantaged populations, without understanding the context and historical battles that have led to some of these outcomes, has made me a strong advocate for Pacific health. Moreover, I am passionately committed to reducing inequities within the health system, particularly within the PR space. The CMH programmes are broadly similar in structure and format across the entirety of the district despite large differences in terms of the ethnic background of the populations of Pukekohe through to Howick, Mangere, and Manurewa. However, without

understanding the communities' needs, a one-size-fits-all approach could act as a barrier, especially for vulnerable populations disproportionately affected by respiratory diseases and SDH (Baker et al., 2013). Education is one of the most utilised interventions for SM tools in health care, from prevention to management (Coster et al., 2020). SM education has been shown to improve long term management, which can reduce hospitalisation, exacerbations and improve the quality of life of those with chronic health conditions (Coster et al., 2020). Understanding this means that the added health inequities that Pacific people face, and the cultural, educational, and linguistic (language) complexities mean that services must reconfigure the implementation and delivery of education to the populations they serve (Gurney et al., 2020).

Drawing on my background and experiences, I have therefore chosen to undertake a "*Talanoa*" approach to understanding the experiences of Pacific people by allowing for storytelling to occur in a participant-led way. Storytelling is one of the oldest forms of sharing knowledge among Pacific people and is done in many ways in Pacific culture, such as spoken word, written work, tattoos, legends, or songs, and these stories shape how we view the world (Watson, 2021). Pacific stories must be told by Pacific peoples in a way that captures their essence and uplifts their wellbeing (Watson, 2021). *Talanoa* is further explained in section 3.3.3 further below.

1.6 Research questions and objectives

Main question:

What are the barriers and enablers to accessing and participating in PR education for Pacific participants?

Objectives:

1. To explore Pacific participants' (PP) experiences of accessing education sessions through *Talanoa*.
2. To identify educational topics and learning styles that fit with what PP feel is important to them.

1.7 Chapter organisation

The following section describes an overview of the thesis chapters.

1.7.1 Chapter one: Introduction and overview

Chapter one explains the historical background of the inequities and health outcomes that Pacific people face today. The context of the research within CMH, and the significance of this research is described. In addition, the conception of the research topic and the researcher's positionality as a novice Pacific woman researcher are explored. The research aims, study questions, and objectives are also presented.

1.7.2 Chapter two: Literature review

Chapter two is presented as a publication; it has been submitted to the Journal "Pacific Health Dialog" and is awaiting review. In this chapter, a narrative review is used to summarise the literature on culturally adapted health education programmes for indigenous and Pacific people. The chapter also delves into themes around beliefs and attitudes as well as relationships and family as these aspects have been found to influence how Pacific people learn and engage with new ideas. Finally, the approaches and features of various culturally centred health education programmes are explored.

1.7.3 Chapter three: Study design

Chapter three introduces the study design, which incorporates qualitative and *Talanoa* methodology and methods and explores the rationale underpinning the research approaches. Specific information regarding the participants and recruitment strategies are noted. In addition, ethical and cultural considerations are discussed, and strategies to mitigate potential issues are explored. Finally, the data collection process and thematic analysis steps are outlined.

1.7.4 Chapter four: The Pacific learner: Experiences, education topics, responsibilities, and relationships

Chapter four presents the first part of the findings of the thematic analysis. Five overarching themes were identified, each with two to three subthemes. Chapter four focuses on three of these main themes. Specifically, the chapter presents the findings for themes Tasi (one), Lua (two) and Tolu (three), utilising verbatim participant quotes to illustrate the themes. Theme Tasi and its subthemes explore the PR journey and experiences of Pacific people prior to starting and during the education programme and is titled "The Pacific learner's journey and experiences of the education topics".

Theme Lua and its sub-themes explore the commitments and responsibilities of Pacific learners (PL) and is titled “fa’alavelave’s” (responsibilities and commitments). Theme Tolu and its subthemes describe factors that contribute to building relationships for PL and is titled “*Teu Le Va*” (Nurturing relationships).

1.7.5 Chapter five: Exploring the experiences of the ‘Pacific learner” within Pulmonary Rehabilitation in Counties Manukau

Chapter five is presented as a publication and provides an in-depth review of the remaining two themes Fa (four) and Lima (five). It features a brief literature review, study design, findings, discussion, and conclusion and uses participant quotes incorporated throughout to give life to the themes. Theme Fa investigates the barriers and enablers that support or hinder participation in education for the PP and is titled *“The Pacific learning style and experiences”.* Theme Lima delves into the attitudes and learning tools that empower the PL in health education and is titled *“Knowledge is power”.* This publication has been written and is awaiting submission.

1.7.6 Chapter six: Discussion and conclusion

The final chapter critically discusses these themes in relation to the literature and presents key recommendations for the CMH PR programme. It also discusses the limitations of the study and offers suggestions for future research possibilities.

Chapter 2 Literature Review

2.1 Introduction

Aotearoa NZ is home to a diverse community of Pacific people. Pacific people account for over 8% of the Aotearoa NZ population, with the 2018 census data reporting 381,642 people identifying as Pacific (Auckland Council, N.d; Statistics NZ, 2023). Auckland has the highest proportion of Pacific people, with approximately 64% of those identifying as Pacific living in Auckland (Auckland Council, N.d; Statistics NZ, 2023). South Auckland has the highest density of Pacific people in Aotearoa NZ; 59% of those living in Mangere-Otahuhu identify as Pacific, as do 46% of those living in Otara-Papatoetoe and 36% of those living in Manurewa (Auckland Council of Research and Evaluation, 2020).

Pacific people have poorer health outcomes than their non-Pacific counterparts and have higher rates of chronic conditions such as diabetes, cardiac, respiratory conditions, and cancer (Ministry of Health, 2020). Moreover, Pacific people are increasingly affected by socio-economic factors such as overcrowding, lower household incomes, lower education rates, and poorer housing conditions, leading to the poorer physical, emotional, and spiritual wellbeing of Pacific *aiga* (Family) (Ministry of Health, 2020). Access to healthcare remains challenging for Pacific people, impeded by barriers such as provider communication, appointment scheduling being months away, costs to visit general practitioners, transportation issues, as well as work, family, and church commitments (Ministry of Health, 2020). Furthermore, the historically fraught relationships with the government have seeded distrust in government agencies (Ministry of Health, 2020; Ministry for Culture and Heritage, 2021). Ongoing discrimination and institutional racism stemming from these relationships are still prevalent today and impact Pacific engagement with health services (Ministry for Culture and Heritage, 2021; Ministry of Health, 2020).

Te Whatu Ora, also known as Health NZ, outlined three main priorities to achieve Pacific health aspirations. One of the priority areas identified, focuses on "strengthening the health knowledge and skills of Pacific people to make informed choices about their health" (Ministry of Health, 2020, p.22), which was deemed critical

to enhancing Pacific people's wellbeing, particularly regarding chronic health conditions. One way the government addresses this priority is through health education programmes that seek to empower people and communities to take control of their health and wellbeing (Hauora NZ, 2014). For this to be effective, Pacific people's culture, beliefs, and practices around how they view health and illness must be factored into the design of health education programmes (Statistics NZ and Ministry of Pacific Island Affairs, 2011).

This narrative review synthesises evidence to understand "how health education programmes are culturally adapted to suit the Pacific community", focusing on qualitative research and participant experiences. This will aid in identifying a gap in the literature and guide the research.

2.2 Search strategy

A review of the literature was undertaken to synthesise evidence on Pacific health education programmes with a particular focus on participant experiences. Searches were conducted in health databases including Scopus, CINAHL via EBSCO, Medline via EBSCO, and Google Scholar between October 2022 and October 2023. The initial inclusion criteria looked at literature with Pacific participants in health education programmes, and/or those with a focus on 'experiences in New Zealand and internationally. The limited literature on Pacific-based experiences prompted the researcher to broaden the scope to the inclusion of literature on indigenous people's experiences, including but not limited to Māori and Aboriginals, due to the similarities in cultural barriers and facilitators encountered within health. Literature was excluded if it was not in English or if it was not open access. Key search terms included: {Pacific or Pacific islanders or Pacifica or Pasifika or indigenous}, {Experiences or perceptions or attitudes or views or feelings or qualitative or perspective}, {health promotion or health education or patient education or self-management}. The initial retrieval count was 3359 articles. Literature from the past 15 years (2008 to 2023) was included and articles that were in English only which reduced the number to 2592 articles and links to full text were included leading to 382 pieces of literature. The literature found was then reviewed by title and abstract for relevance. Critical appraisal of the literature was completed using three broad questions applied to each piece of literature. The

questions were who conceived the material the form in which data were found and the purpose or reason for them (Appleton & Cowley, 2008). These questions aim to provide a broad overview of the nature of each document (Appleton & Cowley, 2008).

Additional searches were completed via Google and hand searching reference lists of relevant papers to identify any 'grey material' such as government organisations, reports, and websites. Ultimately, evidence from 27 articles, reports, and other documents were analysed and synthesised. This narrative review outline's common themes and subthemes found in the literature. These themes identify gaps and potential areas for further research.

2.3 Findings

This section will discuss themes and subthemes, starting with the broader literature on indigenous populations and then narrowing the focus on Pacific populations to compare and contrast.

2.3.1 Indigenous health education programs

Globally, indigenous people are more likely to suffer poorer health outcomes, have reduced quality of life and have lower life expectancy than non-indigenous populations (NIP) (The United Nations Inter Agency Support Group, 2014). These inequities have significant implications on public health, with areas such as Australia, Western Pacific regions, and Aotearoa NZ struggling to reduce the gap in health outcomes between indigenous and NIP (The United Nations Inter-Agency Support Group, 2014).

In Australia, Aboriginal and Torres Strait Islanders (ATSI) have a higher disease burden than non-ATSI, with data showing that approximately 50% have at least one chronic health condition (Clark et al., 2015; The Australian Institute of Health and Wellbeing, 2023). Chronic respiratory diseases account for 10% of all deaths among ATSI, making it the fourth leading cause of death for this group (The Australian Institute of Health and Wellbeing, 2023). Similarly, in Aotearoa NZ, Māori face a higher disease burden from NCDs such as diabetes, respiratory, and cardiac diseases (Sinclair et al., 2020). Barriers to accessing healthcare have resulted in 30% of ATSIs not receiving appropriate healthcare due to cost, unavailability of services, geographical barriers, or being overburdened with long wait times (The Australian Institute of Health and

Wellbeing, 2023). These barriers mirror access issues faced by Māori (Carlson et al., 2019; Harding et al., 2022).

Identifying barriers to accessing health education programs can facilitate indigenous communities to be able to make informed choices about their wellbeing (Clark et al., 2015; Schnell-Hoehn et al., 2009). Similarly, health education programs that are culturally appropriate, collaborative, and designed to reduce the gaps in health status between indigenous and NIP have been shown to improve health outcomes and reduce hospital admissions, positively impacting quality of life and reducing hospital costs (Clark et al., 2015; The Australian Institute of Health and Wellbeing, 2023; Sinclair et al., 2020).

The literature suggests that health literacy is a crucial contributor to participants being able to engage and understand health education programmes (Davies et al., 2014; Jamieson et al., 2007; Peake et al., 2019). Studies on indigenous people's experiences of health education programmes have highlighted health literacy being heavily focused on the 'individuals' abilities to absorb health information (Jamieson et al., 2007). However, a major shift has occurred as healthcare services now approach health literacy from a more systemic, social, and cultural perspective (Carlson et al., 2019; Clark et al., 2015). Though limited, the research on indigenous patients' perspectives on health education programmes has identified several factors hindering or enhancing health literacy. Factors that hinder effective interventions are poor communication, including not offering interpreters (Clark et al., 2015; Davies et al., 2014), limited or no culturally appropriate educational resources using local languages (Clark et al., 2015; Davies et al., 2014; Peake et al., 2019), and clinician-patient/family relationships not being grounded in mutual cultural and holistic understanding (Davies et al., 2014).

On the other hand, enhancing factors include community collaboration around the development of programmes and educational resources (Gamble et al., 2017; Harding et al., 2022), and materials that enhance indigenous participants' knowledge through a variety of methods such as visual aids, simple language, and electronic formats that are tailored to indigenous languages (Clark et al., 2015; Davies et al., 2014). However, health literacy is often a socio-economic issue that is affected by context and environment rather than specific skills that an individual has. Therefore, health

education programmes should be multi-sectorial in its approach and developed in collaboration with the community users (Carlson et al., 2019). Indigenous populations share a holistic view of health, and understanding how these groups' view health is vital to addressing the inequities they face (Davies et al., 2014; Fa'alogo-Lilo & Cartwright, 2021). Pacific peoples view health similarly; these similarities are further discussed in the following section.

2.3.2 Pacific health education programmes

The Ministry of Health New Zealand (Henceforth MOH) found that using Pacific values woven throughout the design of health education programmes facilitated better access and engagement (Ministry of Health, 2020). These values include ensuring Pacific worldviews and other values are at the centre of health education programmes and ensuring that healthcare providers engage in a culturally appropriate manner. Based on the evidence from the literature review, three key themes seem to contribute to Pacific people's engagement and access to health education programmes, namely beliefs and attitudes towards health and wellbeing, relationships (*Va*) and Family (*aiga*) and culturally adapted health programmes. These are discussed in more depth in the following sections.

Beliefs and attitudes

Pacific people's historic relationships with Western government organisations underpin the issues of inequity and access that Pacific people face today and have negatively impacted Pacific people's attitudes and beliefs towards health services (Ministry for Culture and Heritage, 2021; Ministry of Health, 2020; Shahab et al., 2019). Positively, attitudes and beliefs that Pacific people hold towards health have been changing over time, with the Aotearoa NZ government and Pacific communities fostering a goal of partnership and participation between Pacific people and providers to create and provide a service that sits within a cultural framework (Ministry of Health, 2020). However, the unintentional power imbalance when accessing healthcare can lead to Pacific people expressing a sense of gratitude for the expertise of health professionals where Pacific people accept healthcare advice at face value, sometimes with a limited understanding of the medical jargon provided (Fia'ali'I et al., 2022; Pio & Nosa, 2020; Shahab et al., 2019). Health professionals' limited knowledge of these cultural attitudes may impact the effectiveness of health education

programmes for Pacific people (Fia'ali'I et al., 2022; Pio & Nosa, 2020). For example, spirituality is a common concept in how Pacific people view the world. Evidence from a qualitative study on the views of Samoan Methodist Church ministers about health-related issues and their role in health promotion and health literacy in their churches (Pio and Nosa, 2020) suggested that church ministers have a key role in boosting the community's engagement with health education programmes by setting examples as role models and encouraging Pacific members to undertake health education programmes (Pio & Nosa, 2020). However, negative attitudes or experiences came about when poor communication between health providers and Pacific people occurred. For example, when funding ceased for a particular health education programme and providers did not communicate this to the community, this often-caused hesitancy when collaborating with future providers who attempted to engage (Pio & Nosa, 2020).

In addition, specific health issues still carry a stigma and shame for Pacific people. For example, the stigma around mental health negatively impacts how Pacific people may engage and access health services (Fa'alogo-Lio & Cartwright, 2021; Ofanoa et al., 2022). In Pacific culture, identity is central to the core of one's being (Shahab et al., 2019). Therefore, when someone is diagnosed with a mental health condition, it can be negatively perceived by those in the Pacific community, thus reducing one's 'self-pride' and 'identity' and, therefore, their wellbeing (Shahab et al. 2019). Understanding the dynamics and relationships between spiritual and cultural beliefs and attitudes towards health and wellbeing are key to reducing barriers and facilitating Pacific people's access to and engagement in health education programmes.

Relationships (Va)/Family (aiga):

Core to the Pacific way of life is the '*va*' and '*aiga*', which play a vital role in how Pacific peoples engage with health education programmes. Chronic diseases have often become common within *aiga* units, normalising views towards these diseases (Stokes et al., 2022; Tane et al., 2021). Families view chronic diseases such as type two diabetes as an 'inevitable' outcome for those within the *aiga* unit due to the recurrent diagnosis of multiple family members across the generational lifetime (Stokes et al., 2022; Tane et al., 2021). By normalising the disease, engagement with health

education programmes has been negatively affected (Sinclair et al., 2020; Tane et al., 2021).

Inversely, families can also encourage engagement with health education programmes. Evidence indicates that seeing other family members participate in health education programmes and share education and SM materials has a positive impact and is a crucial aspect of facilitating participation in health education programmes (Shahab et al. 2019; Sinclair et al., 2020; Stokes et al., 2022; Tane et al., 2021).This reiterates the notion of *aiga* as an important foundation in Pacific people's holistic view of health, which is also reflected in a number of Pacific models of health (Ministry of Health, 2020).

Connection and relationships were also identified as a facilitator that Pacific people felt were important for their engagement in health education programmes (Sinclair et al., 2020; Tane et al., 2021). Programmes that created a safe place for Pacific people to connect and share experiences of having a chronic health condition saw a greater community engagement than other programmes (Sinclair et al., 2020; Stokes et al., 2022; Tane et al., 2021). An example of creating a safe environment included empathic interactions with health professionals, and health professionals who understood their culture or had the ability to connect using the same language (Tane et al., 2021). Those programmes that were successful in this regard were developed and co-designed in collaboration between providers and community users (Prapaveissis et al., 2022). Fostering co-design between communities and service providers has been shown to instil feelings of "being valued" within the development process. It encourages accountability and building trusting and respectful relationships between all involved (Prapaveissis et al., 2022). However, it is important to acknowledge that the power dynamics between those providing health education programmes and participants can be significant, impacting relationships and, ultimately, access and engagement with health education programmes (Pio & Nosa, 2020).

Culturally centred health education programs:

Health education programmes that are culturally adapted to suit the communities they are run in are vital to ensuring that interventions are guided by Pacific, for Pacific people (Ministry of Health, 2020; Tane et al., 2021). Cultural safety is one of the most

essential aspects when Pacific people engage with health education programmes (Prapaveissis et al., 2022; Tane et al., 2021). Positive experiences and engagement were reported by Pacific people when culturally safe interactions with health providers were experienced and providers acknowledged and understood their cultural backgrounds, languages, and worldviews (Tane et al., 2021). In contrast, experiencing feelings of being judged, misunderstood, and of being made to feel inferior hindered engagement (Shahab et al., 2019; Tane et al., 2021). Interestingly, evidence also found that some Pacific people preferred clinicians from other cultural backgrounds to provide the health education programmes, fearing that clinicians from the same cultural background would judge them more harshly (Pio & Nosa, 2020).

Clinicians who understood the communities' social, economic, and cultural contexts were found to create a sense of safety for Pacific people (Tane et al., 2021). Unfortunately, most clinicians do not always consider these contexts when providing health education programmes. Reasons surrounding this are multifactorial, including health system pressures, limited training opportunities and more (Tane et al., 2021). In addition, the importance of having holistic health education programmes that address all aspects of a person and their *aiga*'s health was a key theme (Ofanoa et al., 2022; Prapaveissis et al., 2022; Tane et al., 2021). Similarly, health education programmes that address social stressors such as social wellbeing, finances, food security, and transport issues, in addition to the holistic approach, are more likely to be culturally accepted by Pacific peoples, as it directly relates to their SDH needs (Ofanoa et al., 2022; Prapaveissis et al., 2022; Tane et al., 2021;).

Providers should carefully consider the delivery and resources within a health education programme, as it has major impacts on access and engagement for Pacific people. In addition, having materials that provide simple information in different Pacific languages and images, that Pacific people can identify with are important ways to help Pacific people understand, connect, and make sense of health education (Ofanoa et al., 2022; Pio & Nosa, 2020). Many Pacific people have English as an additional language and often find it difficult to converse and process medical jargon (Pio & Nosa, 2020). Therefore, culturally safe programs should ensure they have processes to identify and address these barriers (Tane et al., 2021; Curtis et al., 2019). The practical considerations of translating health information to diverse Pacific

languages may be a barrier to providers with limited resources (Pio & Nosa, 2020; Ofanoa et al., 2022; Pio & Nosa, 2020), the literature still suggests providing interpreters, including *aiga* who speak English, and providing culturally adapted resources as helpful strategies to address some of these barriers (Ministry of Health, 2020).

2.4 Discussion

Pacific people undoubtedly face inequities and challenges in accessing health education programmes. Evidence gathered through this narrative review broadens the understanding of these barriers and facilitators and, ultimately, engagement in health education programmes. Evidence to date highlights how health literacy is crucial to engagement, facilitated by community collaboration in developing programmes and culturally appropriate education resources (Ofanoa et al., 2022; Pio & Nosa, 2020). In addition, recognising and incorporating Pacific values, relationships, and ways of life in health education programmes was also found to facilitate better access and engagement (Ministry of Health, 2020; Ofanoa et al., 2022; Prapaveissis et al., 2022; Tane et al., 2021). Findings from other indigenous communities support this understanding (Ofanoa et al., 2022; Prapaveissis et al., 2022; Tane et al., 2021). Furthermore, broadening the knowledge of Pacific people's perspectives of health and their lived experiences with a chronic health disease allow researchers and providers of health education programmes to gain a deeper and more meaningful cultural foundation, empower Pacific people to take ownership of their health, and ensure that providers can make practical changes to provide culturally appropriate health education programmes (Ofanoa et al., 2022; Prapaveissis et al., 2022; Tane et al., 2021).

Most of the studies included were on diabetes management as this is one of the main chronic illnesses affecting Pacific people, with very few found in other areas of chronic health, such as respiratory illness, despite Pacific people across all age groups having up to 2.6 times more hospital admissions for respiratory-related diseases than other ethnicities (Barnard & Zhang, 2021). A greater understanding of Pacific people's experiences of health education programmes in other chronic conditions is therefore

needed to develop strategies for improving access and engagement across the spectrum of other health education programmes in Aotearoa NZ.

Interestingly, while Pacific learning styles are well researched in the education sector, this was not a common theme in the health education programmes literature. There is a need to better understand learning preferences among Pacific peoples within the health education programme environment to ensure that programmes can better meet the health learning needs of Pacific peoples. The review also revealed that English-speaking Pacific people dominate the literature and discourse around Pacific people's health issues. The voices of those with limited proficiency in English were left out of the conversation, reducing the results to a specific group of Pacific people. Future research needs to include this group of Pacific people to gain a deeper insight into the language and communication difficulties that can arise within health education programmes.

This review reveals consensus across limited literature that health providers should approach health education programmes for Pacific people with a holistic worldview and understanding of common Pacific values, including respect within the *va*, *aiga* as a necessary component in an individual's health journey, and culturally appropriate health education programmes. This means ensuring that socio-economic and cultural considerations are included in the co-design process with and by Pacific people. In addition, when collaborating with Pacific communities, misunderstanding cultural nuances and taboos, and historic racism could act as barriers to engagement. Co-design and collaboration are vital to ensuring that relationships between providers and communities are developed and maintained and that there is community engagement in the development of health education programmes.

There remains a need for further research that focuses on Pacific people's lived experiences and perspectives within other chronic health fields, such as respiratory conditions, to broaden and contribute to the literature on health education programmes within Aotearoa NZ and particularly within South Auckland, where higher proportions of Pacific people reside.

2.5 Conclusion

The information presented in this review emphasises the need for health education programmes in Aotearoa NZ to be aware of Pacific people's inequities and the issues they tend to encounter in the health system. This also means that health education programmes need to be designed in culturally appropriate ways to ensure continued engagement from this group. This would involve collaboration with Pacific communities around content and delivery, culturally adapting handouts and learning materials, utilising interpreters, and ensuring health professionals involved in the programmes have awareness of the diversity of cultures and are culturally responsive and safe.

The current research study aims to contribute to our understanding of the experiences of Pacific people with NCD who engage with health education programmes. In addition, the review has identified a gap in the literature within the area of chronic respiratory health and Pacific people's experiences of SM education, particularly within South Auckland, Aotearoa NZ. Considering the high prevalence of respiratory disease among Pacific people, and high-density Pacific population in CMH, an in-depth exploration of this issue within PR rehabilitation would help us adjust the current service provided and improve engagement with Pacific people. This review has contributed to the development of the research question and objectives of this current thesis.

Chapter 3 Study design

3.1 Introduction

This chapter outlines the specific research steps and processes used to investigate the research questions, aims, and objectives detailed in Chapter 1. This research uses a qualitative interpretive approach as a well-established methodology that incorporates in-depth and rich storytelling. This approach supports the Pacific framework of *Talanoa*, allowing participants to share their experiences authentically. This aligns with the aims, objectives, and intention of this research to use *Talanoa* to explore Pacific people's experiences of accessing education sessions to identify educational topics and learning styles that fit with what PP feel is important to them.

3.2 Qualitative approach

To conduct qualitative research, it is important to describe the philosophical positioning of the researcher and research, in order to acknowledge the researchers' assumptions (Grant & Giddings, 2002). The broad philosophical underpinnings of the qualitative research, including the axiology, ontology, epistemology, and methodology used are described in the section below (Grant & Giddings, 2002).

Axiology, broadly stated, is based on the assumption that a researcher brings with them their worldviews, experiences, values, and socio-economic factors, which are likely to contribute to how the research is approached (Grant & Giddings, 2002). This is also known as the researcher positionality (Grant & Giddings, 2002). Axiology has been demonstrated in various ways including through sharing the researcher positionality and choosing appropriate supervisors with similar axiology (Grant & Giddings, 2002). Appropriate demonstration of axiology ensures researchers are explicit with any potential biases that might underpin the analysis and attempt to stay true to the aims and objectives and most importantly, the voices of the participants (Grant & Giddings, 2002). This thesis assumes the stance of nominalism, which holds that there are multiple constructed realities (Grant & Giddings, 2002). These realities are affected by people's values, experiences, and culture, and in this sense, reality can be described as subjective (Grant & Giddings, 2002). In this research, assuming nominalism as a guiding stance means that participants can discuss their lived realities of experiencing

education in PR. For this purpose, the thesis uses semi-structured *Talanoa*-style interviews to collect data. *Talanoa* is an informal or formal way that Pacific people have conversations and communicate and is further described in the section 3.3.3 (Halapua, 2002; Vaioleti, 2006). Utilising *Talanoa* as a form of data collection allows participants to share their stories in their own way using their own words.

The epistemological stance used here, interpretivism, is related to the ontological stance of nominalism in that both assume the existence of multiple realities and truths (Grant & Giddings, 2002). In addition, it assumes that the researcher's role within qualitative research is to capture people's realities (Grant & Giddings, 2002). Therefore, a broad qualitative approach was chosen that incorporates Pacific concepts and methods to address the aims and objectives. Qualitative research allows researchers to explore a topic area or phenomenon and find meaning, which offers positive benefits when attempting to understand why something has occurred (Sutton & Austin, 2015). This is different from quantitative research which is often seen as 'cleaner' data to analyse and where the goal is often numbers driven and explores questions such as, to find out how many, how much or how often (Sutton & Austin, 2015). Additional benefits of qualitative research in contrast to quantitative research are described further below.

Qualitative approaches explore how participants frame their own experiences while also gaining a rich and in-depth understanding of a subject matter as each participant has their personal story to express (Sutton & Austin, 2015). Researchers have argued that qualitative research can be seen as inferior to quantitative research (Sutton & Austin, 2015). This is due to factors such as qualitative data being seen as more time consuming, analysis being viewed as messy and the potential for personal experiences and knowledge, influencing observations and conclusions (Sutton & Austin, 2015). However, its unique approach can also be seen to accept and support the "messiness" which can come with qualitative data and can allow a flexible, fluid, and organic development of ideas guided by participant words and nonverbal communication (Sutton & Austin, 2015). Qualitative data can provide insights into a phenomenon in ways that quantitative research cannot (Sutton & Austin, 2015).

Qualitative interpretive approaches include two main components, namely the discovery and understanding of complex ideas and the ability to interpret the data and develop relevant implementations for real life practice (Thorne, 2016). A qualitative interpretive approach was used in this thesis as participants shared their experiences through a *talanoa*. Following the data collection, themes and sub-themes were identified around participants' experiences of education topics as well as barriers and enablers to their learning. Based on these findings, recommendations for how to improve practice were developed (Thorne, 2016). This overarching qualitative interpretive approach was conducted within a 'Pacific paradigm' which is described further below in section 3.3.

3.3 Pacific paradigm and its importance in Pacific research

3.3.1 Pacific paradigm

There is no single Pacific worldview. Pacific people as a group are diverse as they are made up of many different groups speaking different languages, with different foods, cultures, and customs, and so their worldviews are diverse, too (Leva, 2009; Tualauleilei & Mcfall-Mccafferty, 2019). The word "Pacific" or "Pasifika" encompasses the islands that are within the Pan-Pacific Ocean, and which is diverse and rich in culture (Leva, 2009; Tualauleilei & Mcfall-Mccafferty, 2019). Concentrating on the Aotearoa NZ context, migration has seen many Pacific peoples move to Aotearoa NZ. This has contributed to some degree to assimilation into local Aotearoa NZ culture and created a distinct community with its own shared values (Leva, 2009; Tofi, 2021). Pacific communities thrive on values including reciprocity and mutual benefit, *Teu Le Va* (nurturing of relationships), collectivism/community, *Tautua* (service), respect, spirituality, leadership, and *aiga* (Leva, 2009; Keung, 2018). In addition to this, a new worldview has emerged which has combined Pacific and Western views through a generation of Aotearoa NZ-born Pacific people who may not have grown up in the islands but have been brought up with Pacific values, which adds another layer of complication to generational differences within the Pacific family construct (Keung, 2018; Tofi, 2021). The Aotearoa NZ-born Pacific paradigm was an important consideration when undertaking research with Pacific people in Aotearoa NZ. Acknowledging the differences and similarities between those born in the islands and those born and raised here, as well as the complex interplay of culture and values is

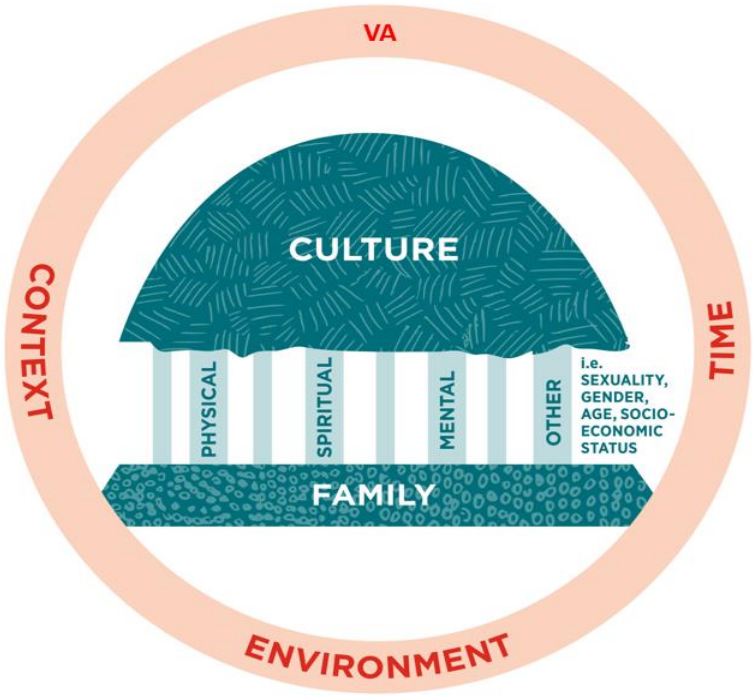
imperative when undertaking research with Pacific people (Leva, 2009; Tofi, 2021; Tualauleilei & Mcfall-Mccafferty, 2019).

Equally as important and relevant for this research is the "The Ministry of Education's Action Plan for Pacific education" (Ministry of Education, 2023b), which discussed five key focus areas that were identified as momentous areas for future work when working with PL and their *aiga*. Even though the report was largely focused on primary and tertiary learners, it can also be applied to all PL. The focus areas which are relevant for this thesis include: ensuring reciprocal and collaborative work with diverse Pacific communities, enabling every teacher, leader, professional to take co-ordinated action to become culturally competent with diverse PL, partnering with families to design education programmes and growing, retaining, and valuing highly competent leaders and professionals with diverse Pacific whakapapa (Ministry of Education, 2023b). These crucial characteristics outline cultural values mentioned earlier and support the notion that "Pacific matters being researched by Pacific people, for Pacific people' in a way that supports Pacific communities" needs, is the ideal model of addressing inequities in the system (Ministry of Education, 2023b).

A prominent and well-known Pacific framework employed commonly in research, education, and by health professionals is the *fonofale model* which is displayed in Figure 2 below. This model was created by Pulotu-Endemanns (2001) and encompasses a holistic approach to looking at Pacific people's view on health. This framework was developed to understand a Pacific person's physical, emotional, spiritual, and psychological wellbeing through a Pacific lens. It is widely used among many Pan-Pacific cultures as it embodies the shared values that underpin many of the collective Pacific nations (Keung, 2018; Mcfall-Mccafferty, 2019).

Figure 2

The fonofale framework



Note. The *fonofale model* is based on the Samoan house or "*fale*". From *Hauora*, by the Ministry of Education, 2023, (https://hpe.tki.org.nz/health-and-physical-education-in-the-curriculum/underlying-concepts/hauora/), located in the public domain.

The *fonofale model* as shown in Figure 2 above is based upon the "*fale*", the Samoan house, and can be impacted or affected by the surrounding environment (urban, rural, work, home), time (availability and length of education) and context (health education or SM education) (Keung, 2018; Pulotu- Endemann, 2001). The four posts or "*pou*" that hold up the *fale* represent a Pacific person being regarded as having interconnectedness between different holistic facets contributing to the stability and wellbeing of the *fale* or a person's wellbeing (Keung, 2018; Mcfall-McCaffery, 2010). The ground or bottom of the *fale* and the wellbeing of a Pacific person is grounded by the foundation which represents "*aiga*"; this includes both immediate and extended *aiga* (Keung, 2018; Mcfall-McCaffery, 2010). Culture is represented by the roof of the *fale* which is also connected to the *pou* or protects the *pou* and *aiga*, thereby embracing the cultural values and beliefs, (Keung, 2018; Mcfall-McCaffery, 2010). This

model was adapted to include the "*va*", and this surrounds the *fale*, and represents relationships and interactions that impact wellbeing and experiences (Keung, 2018). The concept of the '*va*' and '*Teu Le Va*' are described further in the section below.

The importance of understanding Pacific frameworks and the relationships between these concepts is central when undertaking research with Pacific communities (Mcfall-McCaffery, 2010). This framework describes a Pacific person's holistic view of health and wellbeing and will assist in developing methods of approaching PP, analysing the data, and discussing the findings in relation to the literature.

3.3.2 Teu Le Va

'*Teu Le Va*' is a concept within the Pacific and Samoan culture where there is a nurturing and reciprocal building of relationships between one another (Anae, 2007). The *Va/Va'a/Vaha* is a Pan-Pacific notion that describes the spatial and relational context within which secular and spiritual relationships unfold (Anae, 2007; Keung, 2018; Vaioleti, 2006). Social, spiritual, and relational contexts allow for personal and collective wellbeing and growth through the generation of knowledge, social action, and cultural transformation, which contributes to understanding Pacific wellbeing more holistically (Anae, 2007). In '*Teu Le Va*', relationships are valued and given space so that all involved may benefit (Anae, 2007; Vaioleti, 2006). *Teu Le Va* is a common expression that captures how relationships can define us and how, conversely, it can have disastrous effects on a Pacific person's health, wellbeing, and by extension on their engagement with their health and health service providers, when relationships are not nurtured (Anae, 2007; Vaioleti, 2006). *Teu Le Va* is also about how we act within space; encompassing principles such as reciprocity, respect, and mutual trust (Anae, 2007; Vaioleti, 2006).

The concept of *Teu Le Va* was applied throughout the study design process with the intention that all relationships were built on mutual trust, respect, and understanding. Below are some examples of how '*Teu Le Va*' was woven into the research process:

1. The information provided to participants via the participant information sheet, (PIS) is an example of *Teu Le Va* as it outlined clear safety, purpose, expectations, benefits, and discomforts that may arise by participating, and

which participants were encouraged to share with *aiga* and created an opportunity for participants to clarify their understanding prior to participation.

2. The timeframes selected for the *Talanoa*, were in line with *Teu Le Va* principles because the length of the interview was one to two hours, with breaks as required, to allow for organic rapport and connection with participants with minimal time constraints.
3. Light refreshments were provided for *Talanoa* interviews provided in person, as is common practice in Pacific cultures to fellowship and get to know each other and complied with *Teu Le Va* principles.
4. To create a power balance and level the playing field between researcher and participants, a sharing of my positionality as a Pacific researcher was completed prior to the commencement of each *Talanoa*. This allowed participants to get to know the researcher and provide a safe space for vulnerable conversations regarding their experiences.
5. Researcher notes were taken after each interview to help guide context and ensure that all aspects of the relationship, both verbal and nonverbal, were noted and respected when analysing the data, which contributed to rigour and honoured the relationship and stories shared (Palaganas et al., 2017).

These actions contributed to *Teu Le Va* with participants. *Teu Le Va* aimed to protect the gifts of knowledge that were provided by participants. It also put emphasis on the notion that Pacific people see themselves as a collective and that their self-identity is viewed within the collective group and the quality of relationships within the group (Keung, 2018; Mcfall-McCaffery, 2010; Mo'a, 2015; Tamasese et al., 2005). The concept of self-identity in Samoan culture is seen to only exist in relation to the village, the environment, and the universe, and the nurturing of these factors is what helps to inform and encourage connections and relationships (Keung, 2018; Mcfall-McCaffery, 2010; Mo'a, 2015; Tamasese et al., 2005). Although this is a Samoan concept it can be applied in other Pacific cultures (Tamasese et al., 2005).

3.3.3 Talanoa

Talanoa is a well-established Pacific research methodology. It is a branch of phenomenological research that seeks to understand and describe a phenomenon (Halapua, 2002; Vaioleti, 2006). It is based on a Tongan researcher's perspective of and

approach to research (Halapua, 2002; Vaioleti, 2006). However, *talanoa* is also a common word used in Fiji, Samoa, and other Pacific nations as an informal or formal way of communicating and exchanging knowledge (Alefaio, 2009; Halapua, 2002; Suaalii & Fulu, 2014; Vaioleti, 2006; Vaka et al., 2016). *Talanoa* has been described as both a 'methodology' or an 'approach' to research and equally as a 'method' of research, including a *talanoa* interview or *talanoa* focus group (Halapua, 2002; Vaioleti, 2006). *Talanoa* comes from two words, the first of which is "tala", which can mean "to tell stories, to inform, command or ask and apply" (Alefaio, 2009; Halapua, 2002; Suaalii & Fulu, 2014; Vaioleti, 2006; Vaka et al., 2016). The second part is "noa", which refers to zero, or nothing (Alefaio, 2009; Halapua, 2002; Suaalii & Fulu, 2014; Vaioleti, 2006; Vaka et al., 2016). Several Pacific researchers have described "noa" as the point at which X and Y meet on the axis point or graph, or where harmony and balance occur between a question asked and an answer given (Mahina, 2008; Vaka et al., 2016). *Talanoa* is a traditional approach to developing, understanding, and passing down knowledge through storytelling and oratory skills, which are still common practice in Pacific Island and indigenous populations (Halapua, 2002; Vaka et al., 2016).

Talanoa has no set rules per se; however, there are core Pacific values that underpin it such as *Teu Le Va*, reciprocity, and respect. It requires a deep emotional, spiritual understanding for two parties, in this instance researcher and participant, to engage in meaningful *Talanoa* (Farrelly & Nabobo-baba, 2014; Halapua, 2002). One limitation to *talanoa* is the difficulty as a researcher to balance allowing conversations to be led organically by participants whilst also answering the research question (Farrelly & Nabobo-baba, 2014; Tofi, 2021). This often requires *talanoa* to have some flexibility in structure. *Talanoa* can be used in different contexts and has different levels or dimensions (Farrelly & Nabobo-baba, 2014; Halapua, 2002). *Talanoa* can flow between these dimensions depending on the research area or topic (Keung, 2018; Vaioleti, 2013). Keung (2018) and Vaioleti (2013) noted eight dimensions, which are further explained below:

- ***"Talanoa Vave"*** – a brief conversation between two people which is casual.
- ***"Talanoa Faikava"***– a discussion with a clear purpose in a group of men drinking kava, which is similar to a focus group.

- ***"Talanoa usu"***– a deeper conversation between parties which uplifts and creates a sense of inner warmth and positive feelings.
- ***"Talanoa tevolo"***– a spiritual conversation around supernatural occurrences.
- ***"Talanoa Faka'eke'eke"*** – one on one interview involving direct questions and answers.
- ***"Po talanoa"*** – general conversations about the day-to-day, e.g., family, church, work.
- ***"Talanoa'I"*** – high level discussions, reviewing, and analysis of subjects.
- ***"Talanga"***– a process of debate surrounding important topics.

The ability to move between these dimensions is guided by the researcher and their ability to allow an open and frank discussion (Farrelly & Nabobo-Baba, 2014). In this research, *talanoa* started in the *Talanoa vave* and *Po Talanoa* dimensions where a casual conversation occurred between researcher and participant about family and day to day activities and then moved through to *Talanoa faka' eke'eke* and *Talanoa'I* dimensions that involved a deeper exchange between both parties that focused on the topic of PR education. The ability to move through *talanoa* dimensions may perhaps be seen as a barrier for some qualitative researchers as it may be more time consuming; however, being rushed and too focused during the interview could negatively affect *Teu Le Va* and data quality.

In essence, *talanoa* is a cultural approach used to gather stories and emotions related to Pacific issues, to open dialogue, exchange knowledge, experiences, and ideas in an informal or formal way (Farrelly & Nabobo-Baba, 2014; Vaka et al., 2016). *Talanoa* allows researchers to gain a deeper understanding of a phenomenon and most importantly adds to the wider body of knowledge related to Pacific issues and the inequities Pacific people face (Farrelly & Nabobo-Baba, 2014; Halapua, 2002; Vaioleti, 2006; Vaka et al., 2016).

Using *talanoa* as an approach acknowledges that incorporating a Pacific paradigm requires the researcher to also consider other common Pacific values such as reciprocity, love, respect, family, and culture as the basis of building *Teu Le Va* throughout the research process , in addition to developing an understanding of the beliefs, knowledge, and cultural protocols that are shared within Pacific communities

(Halapua, 2002; Naufahu, 2018; Vaka et al., 2016). These concepts and considerations were woven throughout the research process.

3.4 Methods

3.4.1 Recruitment

The recruitment data gathered by staff members working in PR at CMH included ethnicity, a formal diagnosis of a lung condition, attendance of at least 50% of the education sessions, English speaking, and cognitive status (see full inclusion and exclusion criteria section below). To ensure participation was completely voluntary and avoid a sense of coercion, participants were recruited by PR staff who did not work at the recruited PR localities. This was done to ensure the PP could feel comfortable to decline and to reduce any semblance of potential coercion (Bryman, 2012).

The process of how information was given to potential participants is described below:

- A respiratory nurse or physiotherapist not associated with the two specific PR programmes identified participants who fit the inclusion criteria. The information used was taken from their initial assessment at the programme.
- Participants were approached pre and post PR class and provided with the summary poster (see Appendix C) which outlined the project aim and participation requirements. A poster was selected at the outset, instead of the PIS, as a short and easy way for participants to ascertain their interest in the study. The research team debated using the PIS as a starting point but felt it may reduce engagement and recruitment into the study due to it being long and wordy.
- Participants were able to take the poster away to consider participation for two weeks and the participants could then contact the researcher directly to indicate their interest in participating in the research.
- The lead researcher then contacted participants and further explained the research expectations with the detailed PIS (See Appendix C). A copy of the PIS was provided to each participant via mail or email, depending on what the participant preferred. Participants were offered the opportunity for the researcher to read the PIS and participants were encouraged to talk to their

aiga. Literature supports reading PIS verbally to participants as an additional avenue of providing information for patients with health literacy difficulties (Ownby et al., 2015).

- Once involvement was confirmed, participants were offered the opportunity to choose the location, time, and day for the *Talanoa* (face to face or zoom options were available).

3.4.2 Voluntary and informed consent

Voluntary and informed consent was obtained by two colleagues verbally and their details were passed on to the lead researcher for additional explanation surrounding research expectations. As mentioned in the preceding section, PIS and consent forms were sent via mail or email. Participants were able to take away the consent form and consider their participation with *aiga* before signing the consent form. Moreover, participants had the opportunity to ask questions at the start of their *Talanoa* interview. As a supplementary layer of protection, the option to '"consent to recording" the interview on zoom was used where participants had to actively click to indicate consent prior to the *talanoa* starting (for the one participant that opted for a zoom *Talanoa*).

3.4.3 Inclusion and exclusion criteria

This research consisted of one-on-one *talanoa* with five PP. To be eligible for involvement in a *talanoa*, participants needed to have completed a PR programme at CMH, identify as Pacific or have been born in a Pacific Island, have a diagnosed lung condition, and speak English. They were excluded if they did not meet these requirements or had a cognitive or communication impairment. Participants were presented with the option to bring their *aiga* if they desired.

3.4.4 Participant sampling

Participants were selected using purposive sampling, which, in this circumstance, included Pacific people who attended PR education sessions within the CMH better breathing programmes (Bryman, 2012). In this research, recruitment was concentrated in the Manurewa and Mangere programmes which anecdotally have higher proportions of PP. Applying purposeful sampling allowed for a diverse and broad range of participants to be selected and resulted in experiences across multiple cultures

within the Pacific to be included in the study (Bryman, 2012). This guaranteed that a combination of genders, ages, Pacific cultures, and life experiences were identified, to allow for a robust and rich influence on the research (Bryman, 2012).

3.4.5 Pacific advisors

The lead researcher had contact throughout the research process with Pacific health professionals and community members to seek out guidance, feedback, and advice around different aspects of the research. These advisors identified as Pacific and were called on for their unique Pacific worldviews which held the lead researcher accountable to the values and aspirations of Pacific people throughout the research process. These advisors comprised of:

- A Pacific Clinician
- A Student and Allied Health Entry to Practice Coordinator
- A South Auckland community member

Advisors were known to the lead researcher within a professional capacity and contacted informally when needed throughout the research process and were asked directly as individuals rather than a group.

3.4.6 Data collection

Talanoa can be used as both a methodology and a method and was used in this study as a tool for data collection through a *Talanoa* interview (Halapua, 2002; Naufahu, 2018; Vaka et al., 2016). This flows on from the discussion in section 3.3.3 above around *talanoa*. *Talanoa* granted some flexibility to allow participants to tell their story freely while also ensuring that the research question was answered (Vaioleti, 2006).

As *talanoa* is grounded around the Pacific value of reciprocity, it was imperative that the researcher created a safe and sacred space to foster organic sharing of knowledge and stories at the first face to face meeting with participants (Vaka et al., 2016). Therefore, during the pre-*talanoa* phase, the sharing of *meaai* (food) permitted the space for *Teu Le Va* to flourish (for interviews that were in person). All participants were offered to start the process with a *lotu* (prayer), with only one participant declining this option. The pre-*talanoa* was initiated and guided by the participant in an

informal way. The length of the pre-*talanoa* altered amongst participants and ranged from 10 minutes to 45 minutes.

Two *talanoa* were held at a Middlemore Hospital conference room at the request of the participants, two were held at the Manurewa Netball Centre (in a small private room) and one was held via zoom due to work commitments at the request of the participant. The *talanoa* varied in length between 40 to 90 minutes and were all audio recorded with a digital voice recorder or, in the case of the zoom *talanoa*, both video and audio recorded.

The interviewer followed semi structured prompts (see Appendix C) which revolved around the primary objectives of the research. Prompts were utilised as reminders for the interviewer only and did not function as a script. Each *talanoa* was guided by the participant's memories, feelings, and thoughts on PR education. Each *talanoa* was informal, and participants were encouraged to rest, eat, and drink (*inu)* whenever they felt they needed a break. The Interviewer partook in the sharing of *meaai* to allow the participants to feel comfortable as there were only two people present. Post *talanoa*, the researcher immediately wrote down reflections on the *talanoa* as well as any initial thoughts and comments.

Subtle but important cultural protocols were observed where appropriate. A summary of these included:

- Greetings on arrival that occurred in the participants' own languages.
- *Meaai* and *Inu* were presented on arrival and offered throughout the session.
- *Talanoa* interviews were scheduled to allow time for *Teu Le Va*, the length of which was determined by the participants.
- *Lotu* was offered prior to the start of the *talanoa* interview and the researcher continually checked in throughout the session to allow for breaks as required. This was also encouraged due to the characteristics of the participants being interviewed as breathlessness was a prevailing symptom. Therefore, by offering breaks, the researcher indicated an awareness that talking could become very tiresome.

All recordings were transcribed by the researcher. This facilitated researcher immersion and familiarity with the data and thereby also contributed to the credibility of the research by strengthening rigour, which is further described in the section 3.4.9 below (Maher et al., 2018). During the transcription process, transcripts were listened to twice and read three times, which accelerated familiarisation and contributed to and guided the development of themes (Braun & Clarke, 2006). These aspects mentioned above further contributed to rigour.

A demographic sheet was collected to capture a range statistic that describe populations and their characteristics (Appendix C). Data collected included participants' ethnicity, age, gender, and socioeconomic factors including highest qualification and job title. These demographics were collected to assist with data analysis and linking in possible themes that emerge around health literacy, Pacific learning needs, adult learning needs and SDH. In addition, assist in establishing a patient profile of who the findings may apply to, and identify any gaps in representation.

3.4.7 Data analysis

A thematic analysis approach that draws on inductive, semantic, and realist forms of analysis through a six-step process were adopted (Braun & Clarke, 2006). This type of approach is driven by the content of the data and reflects and assumes that what participants say is an accurate reflection of their thoughts and experiences, in line with the nominalist ontology thus, following Braun and Clarke's (2006) guidelines for conducting a thematic analysis, procedures were set in place to safeguard the development of themes as close to words of participants as possible. These procedures are discussed in relation to this research below.

Step one - *Getting familiar with the data:* Audio recordings were transcribed by the researcher verbatim and listened to at least three times. Each subsequent analysis, comments were completed adjacent to participant words and valuable segments were highlighted electronically. Preliminary ideas were intentionally avoided so as not to jump to conclusions, allowing patterns to emerge organically. This required regular meetings with supervisors as reminders.

Step two – *Coding:* The research questions and objectives were used to guide early coding, which resulted in the creation of several different codes and extracts from the *Talanoa*. These broad codes included "barriers to accessing education", "enablers to accessing education", "what is meaningful" regarding topics covered by PR education, and "how you learn best".

Step three – *Generating initial themes:* Broader codes were reviewed and discussed with co-researchers and select Pacific advisors, and the process of grouping the data into draft themes was completed. As an example, the examination of codes at step three resulted in the further generation of specific themes around "*Fa'alavelave's* or commitments", "journey through the programme", "relationships/*Teu Le Va*", and "learning styles and tools" as potential themes which affected the participants access, engagement, and participation in education.

Step four – *Reviewing themes:* This step required checking and reviewing the initial themes against the research question and aims, with the goal of refining and then organising the generated themes into themes and sub-themes.

During this stage, themes were identified to have a lot of overlap, and it was challenging to determine where several of the ideas from the *Talanoa* fit best. At this stage, a process of self-reflection occurred around the process of reviewing themes. Throughout this process there were multiple stages where a reminder to stay true to the participant's voice was required. To best do this, themes were reviewed during supervision sessions, audio recordings and research notes were re-reviewed and re-examined with the pacific advisors. These sessions provided a reminder of content and context and assisted in theme selection and further development.

Step five – *Defining and naming themes:* By this stage, Braun and Clarke (2006) urged researchers to identify and develop a narrative for each theme and to decide on informative names for each. This was further discussed in supervision sessions, and a themes table was created containing the theme, subtheme name, definition, and quote excerpts which illustrated each theme or subtheme. These themes that were used at this stage were "the Pacific Learner's journey and experiences through the programme", "the Pacific learning styles and experiences", "*Fa'alavelave's"*, "knowledge is power", and "*Teu Le Va*".

Step six – *The write up:* This final step involved writing up the key findings under each theme. A description of each main theme and associated subthemes is presented in the next chapters.

In addition, an analysis strategy was created to guide the above steps and is shown in Appendix B.

Overall, by using Braun and Clarke's (2006) six step process and drawing upon the Pacific principles described in section 3.3, the integrity of Pacific knowledge was upheld through the data analysis process.

3.4.8 Ethical and cultural considerations:

Ethics approval was obtained and approved from Auckland University of Technology Ethics Committee (AUTEC) (AUTEC Number 21/442) (see appendix A).

Confidentiality is the obligation of persons to whom private information has been entrusted not to use or divulge the information without permission for any purpose other than that for which it was originally given (The National Ethics Advisory Committee, 2022). This includes protecting the identity of individual research participants in addition to any information they may provide throughout the course of their participation (The National Ethics Advisory Committee, 2022). Confidentiality differs from anonymity. All information disclosed during interviews were confidential and only used for the purposes of this research. Furthermore, all *talanoa* were completed in private rooms in each location with locked doors, data was stored on a USB which was stored in a locked filing cabinet in a locked office. The data will be stored for up to ten years as per the AUTEC guidelines for health data, at which point the data will be destroyed (AUTEC, 2020). All participants' identities and information were protected by removing any shared information that could potentially identify a person from the transcripts, analysis, and write up.

The imposition participation placed on them in terms of time and travel was a consideration. Therefore, to mitigate that pressure, petrol vouchers and prepaid parking tickets were provided to assist financially where appropriate. However, participants were also allowed to withdraw at any point during the research process,

with any data collected returned to them or used with their permission; however, once the findings were produced, no data would be able to be removed.

The possible power dynamics between health professional and patient was crucial to consider, therefore a focus on actively listening to the participants and avoiding biases was vital (The National Ethics Advisory Committee, 2022). Despite having a background in physiotherapy, the *talanoa* were not a space to provide treatment or advice but a space to gain a deeper understanding around Pacific people's experiences. This mindset change was a conscious approach, and often required inner reflection post *talanoa*.

Another consideration during the research process was the dynamic of being a younger Pacific woman and interviewing individuals of different cultures, ages, genders, and the sensitivity of cultural taboos that could arise. For example, discussing topics such as end of life care or incontinence care may well be seen as intrusive or private. To pre-empt possible problems, employing a Pacific paradigm was vital as it involves a focus on respect and reciprocity (Tofi, 2021), which in turn fostered a safe and open space for sharing (The National Ethics Advisory Committee, 2022).

Finally, it is acknowledged that completing Pacific research within an Aotearoa NZ context is done on *tangata whenua* land, and so the key philosophies around partnership, participation, and protection were incorporated throughout the research process (The National Ethics Advisory Committee, 2022). **Partnership** between researcher and participant was created through *Teu Le Va* with the ambition of sharing knowledge between each other but also for the collective. As the name suggests, **participants** were viewed as members of the research team and their role in the team was to share their stories and experiences. Additionally, theme summaries were provided to participants who consented to this, enabling participants to validate and provide feedback if they wanted to. This further increased the quality of the data provided and ensured the data was true to the stories provided, thus increasing rigor. Finally, **protection** was provided by ensuring that power dynamics were reduced in as many ways as possible. These have been discussed in detail above throughout section 3.4.

The application of ethics through a cultural lens relevant to PP and communities was paramount for this study (The National Ethics Advisory Committee, 2022). The concept of *Teu Le Va* and the Pacific paradigm approach as previously mentioned in section 3.3 provided the Pacific framework that guaranteed that participants' cultural sensitivities were accommodated and respected throughout the entire study process.

3.4.9 Rigour

Rigour in qualitative research is used to uphold the quality and trustworthiness of research and can be shown in the form of credibility, dependability, confirmability, and transferability (Maher et al., 2018). Briefly, Credibility aims to ensure that the study measures what it is intending to measure while staying true to the social reality of the participants involved (Maher et al., 2018). Dependability aims to ensure that research is described in enough details that it could be replicated (Maher et al., 2018). Confirmability aims to reduce bias within research (Maher et al., 2018). Transferability focuses on the ability of the findings to be transferred to other contexts, or settings (Maher et al., 2018). These four dimensions were overarching throughout the whole research process and have been mentioned in different sections of this chapter.

3.5 Conclusion

The chapter further described how participants were invited to the research by medical staff involved in PR education at a different centre to avoid coercion. Those interested were provided with a consent form before a time and place was arranged for the researcher and participant to engage in *talanoa*. Once the participant selection and recruitment along with the data collection were described, an outline of the thematic analysis used was provided. Moreover, it has examined the rationale for using *talanoa* and a Pacific paradigm as the approach to conducting the research and interviews. In addition, ethical and cultural considerations were explored and the rationale for how they were managed was explained. Trustworthiness and rigour were maintained. The following chapter will explore the findings of the research.

Prelude page

Chapter three outlined the study design aspects of the research. Chapters four and five will cover the research findings. The findings consist of five themes, each with two to three subthemes and sub-subthemes. In this study, each theme is represented by a Samoan number from one to five as well as a title. Subthemes and sub-subthemes are described together following directly after their central theme. The themes are numbered Tasi (one), Lua (two), Tolu (three), Fa (four) and Lima (five) and with each main themes title.

The findings are presented in two chapters. Chapter Four reports on themes Tasi, Lua, and Tolu, whereas Fa and Lima are discussed in Chapter Five. Chapter Five has been prepared and is awaiting submission for publication. A summary table of all themes and subthemes is presented in this prelude.

Table 1

Overview of all themes, subthemes, and sub-subthemes

Chapter Four			**Chapter Five**	
Theme Tasi	**Theme Lua**	**Theme Tolu**	**Theme Fa**	**Theme Lima**
The Pacific learner's journey and experience of the education topics	**Fa'alavelave's (other commitments and responsibilities) for Pacific participants**	***Teu le Va* (Nurturing relationships)**	**The Pacific learning styles and experiences**	**Knowledge is power**
Subthemes and sub-subthemes				
Pre programme expectations	"O le Tagata ma lona *aiga*, O le Tagata ma lona Fa'asinomaga" (Every person belongs to a family, and every family belongs to a person) Samoan	The importance of feeling a sense of belonging	facilitators to learning	Pacific people want to learn

	proverb- unknown.			
Experiences of the topics covered: Positive experiences Negative experiences What topics could be improved based on Pacific Participants experiences	Work commitments	The importance of building meaningful peer relationships	Barriers to learning	Healthy literacy
	Other comorbidities	The importance of relationships with staff		

Chapter 4 The Pacific learner: Experiences, education topics, responsibilities, and relationships

4.1 Introduction

Chapter four and Chapter five present the findings from *Talanoa* undertaken with Pacific participants. The findings presented in this chapter describe the experiences, feelings, barriers, and enablers that have affected the participants' participation in the education component.

In chapter four, an overview of the participants is provided, followed by a detailed discussion of the themes found through analysis of and submersion in the data using participant quotes from the *Talanoa* to illustrate the findings. Pseudonyms are used to help maintain participants' privacy and take the form of '*Talanoa* 1', "*Talanoa* 2", and so on.

The themes presented in this chapter and in Chapter five offer important insights into PP specific experiences of education in the CMH programme, which constitutes an area that deserves further research.

4.2 Participants

Five PP, fitting the inclusion criteria described in section 3.4.3, participated in this research. Purposive sampling allowed a wide range of Pacific voices to be heard and incorporated into the findings. Among these five participants, one identified as Fijian Indian, one as Samoan, one as Tongan, one as Cook Island Māori, and one as Niuean.

Participants' ages ranged between 35 and 75 years of age; two were employed, while two were retired and one was on a sickness benefit. The lowest level of education was third form high school level, and the highest form of education was a university post graduate diploma. Two participants were female, and three were male, which is fairly representative of the participants who attend.

4.3 Themes:

A brief overview of the themes, sub-themes and sub-subthemes covered in Chapter four is provided in Table 2 below.

Table 2

Overview of themes, subthemes and sub-subthemes reported in chapter four

Theme name	**Description**
Theme Tasi: The Pacific learner's journey from start to finish and experiences of the education topics	**Summary:** This theme focuses on the experience of the PL throughout the PR education journey, including pre-programme, during, and after the education sessions provided in PR at CMH. This theme has two subthemes and three sub-sub themes that serve to capture similar experiences and identify important education topics for PP.
Subtheme • Pre programme expectations	
Sub-subthemes • Experiences of the education sessions a) Positive experiences b) Negative experiences c) What topics could be improved based on PPs experiences	
Theme Lua: Fa'alavelave's (other commitments and responsibilities) for PPs	**Summary:** This theme focuses on PP's additional commitments and responsibilities outside of the education programme and is titled "Fa'alavelave's**",** a Samoan word and concept that encapsulates the strong obligations a Pacific individual has within their identity as a Pacific person. It discusses the effects of external commitments on PP's

	experiences of the education programme.
Subthemes • "O le Tagata ma lona *aiga*, O le Tagata ma lona Fa'asinomaga" (Every person belongs to a family, and every family belongs to a person) *Samoan proverb-unknown.* • Work commitments • Other comorbidities	
Theme Tolu: *Teu Le Va* (Nurturing of relationships)	**Summary:** This theme is centred around the Samoan concept of *Teu Le Va*, which is focused on nurturing, building, and creating relationships within a safe space. This theme explores factors that facilitated or hindered this concept.
Subthemes • The importance of feeling a sense of belonging • The importance of building meaningful peer relationships • The importance of relationships with staff	

It is important to be reminded that Pacific people have a diverse and rich culture, heritage, and ancestry. Culture is embedded in one's identity, and one of the main ways that culture has been preserved is by passing down myths, legends, and storytelling to the next generation (Ngari, 2022). *Talanoa* is one way in which stories and experiences can be captured and shared in a way that uplifts Pacific peoples and is informative to others; it is an approach that has proven particularly successful in healthcare research, as both a well utilised method and methodology (Vaioleti, 2006). In the following section, themes Tasi, Lua, and Tolu, together with their associated subthemes and sub-subthemes, are explored and the participants' words are used to help shape an authentic telling of their stories.

4.3.1 Theme Tasi: The Pacific learner's journey from start to finish and experiences of the education topics

The PL's journey through the programme begins before they even attend the education sessions. Engagement by staff and services with Pacific people - from the first patient contact or point of referral to the completion of the programme - impacts PL's experiences either positively or negatively, depending on multiple factors. The narratives shared in the *talanoa* suggested that the best way to capture PL's journey through the education programme was chronologically, starting with their pre-programme expectations of what the education sessions would look like, followed by their experiences during the programme, and finally how they felt about the programme post completion. Listening to PP and their unique experiences is vital for health professionals in collaborating with Pacific people and improving the quality of health education programmes. This theme articulates the differences between pre-programme expectations and the reality of the class as well as participants' experiences of specific topics. The information presented here will help to shape future education schedules that PP may find useful.

Pre programme expectations

Many experiences and factors shape user views on what to expect when participating in activities or programmes. When it comes to the PR programme, inpatient clinicians and general practitioners are often the first point of contact for patients and are the ones who organise the referral to PR. However, these medical professionals may never have observed a PR training or education session before. Throughout the *talanoa*, all participants shared that they received a brief introduction and that they actively consented to a referral to PR. However, despite this, all participants mentioned that their pre programme expectations based on the verbal explanation of the programme ended up being different from the reality of what the programme delivered: *"No, it was different; I thought it was just exercise" (Talanoa* 1). From the accounts provided in the *talanoa* it seemed that different communication styles and explanations about the programme from different referrers, who all had their own preconceptions and experiences of what PR provides, created some sense of uncertainty among the PP involved in this study.

Participants viewed the gap between their expectations and what they encountered in the programme with mixed feelings. Some participants were told that PR would be exercise and education, and others were told it would focus only on breathing education. Nevertheless, participants enjoyed attending once they arrived, as the participant from *Talanoa* 1 commented: *"I found it was more than just walking and doing exercises, that the education was good.".*

Overall, PP in this study tended to lean towards attending the programme despite the difference in expectations, as they were motivated and felt a sense of purpose to learn new SM tools for not just their physical benefit but for their holistic wellbeing. This desire to manage their condition better can be illustrated by the following comment by *Talanoa* 1: *"That was at the back of my mind. I'm here for this purpose, and this is what we are doing. This is going to help me, breathe better ".* (*Talanoa* 1.) While the participants in this study were undeterred by the misrepresentation of the PR programme by their first point of contact, the lack of clarity regarding the structure and content of the programme could potentially discourage PP from engaging in the PR programme. This disappointment by PP in the lack of explanation from health professionals about PR is demonstrated by the following quote: *"They told us that other people were coming in and going to explain things to us, but that was it"* (*Talanoa* 2). This lack of clarity indicated in *Talanoa* 2's quote highlights a few areas where PR services should make small but critical changes to ensure that health professionals who refer patients to PR understand the structure and content of the programme so that PP's and others can make informed choices about whether PR is the right programme for them.

Most participants believed they knew why they were referred to PR, with the core motive being learning how to manage their breathlessness through exercise. Most participants initially thought that education sessions were geared towards exercise only: *"No, it was nothing like what I expected; for example, we'd be talking about the heart, but I knew nothing about the heart"* (*Talanoa* 4). Participants were positively surprised at the variety of sessions that focused on general health and wellbeing.

> *"They said there was going to be a 'training time', but in a different way, you know. They talked about how you feel, your food, what you can eat, and things to help you not become depressed, to help you*

> *sleep at night, and things to help you not feel lonely. The programme was very helpful"* (*Talanoa* 3).

Another consideration when providing education to Pacific people is the diversity of their past educational experiences. Participants in this study had various educational experiences ranging from fourth-form high school to a postgraduate diploma at university. Participant's previous experiences in these educational settings are likely to have a direct impact on their engagement in future educational opportunities.

One participant shared his preliminary worry that they would be bombarded with paperwork during 'education sessions', which was not appealing at the time due to his previous struggles with learning and negative experiences in high school. However, the participant was happily surprised at the diversity of speakers, topics, and presentations that were provided as evidenced by the following quote: *"No, I thought it was going to be different, a lot of paperwork and writing and all of that, but it wasn't. I quite liked it"* (*Talanoa* 2).

Experiences of the education topics

The education component of PR consists of various topics related to SM, lifestyle, and behavioural changes designed to manage chronic respiratory diseases. Topics covered ranged from basic anatomy and physiology of the lungs and chronic respiratory diseases to exacerbation management. Guaranteeing that the delivery of education is appropriate for the educational background, language and communication difficulties, ethnic background, and cognitive disabilities need to be considered when thinking about structure and content of education. Therefore, understanding the community in which PR is delivered and tailoring topics to suit the community is fundamental to delivering a successful education programme. Participants have provided feedback on education topics that they found helpful through sharing their experiences-accompanied by a rationalisation of why topics were useful or not. The feedback received from participants suggests that a greater focus on topics that support the holistic wellbeing and SM of PP would better meet patient needs.

Positive experiences of education topics

Across the *Talanoa*, participants reported feeling grateful and appreciative of the knowledge shared and for the special guests who presented each education session.

When asked which topics were meaningful, memorable, and valuable to them, the participants listed the following:

- Respiratory medications and devices
- Nutrition
- St John's services
- Anatomy and physiology of the lungs and pathophysiology of respiratory conditions
- Breathing control
- Alternative exercise options
- Positive coping
- SM plans
- Benefits of exercise

The above topics are all suggested topics featured in the PR guidelines (Global Initiative for Chronic Obstructive Lung Disease, 2017). Interestingly, nutrition was the only topic all participants mentioned was important to them. This is not surprising as *meaai* is a key aspect of any Pacific Island social and cultural practices and is a central part of any gathering, including funerals, weddings, and birthdays. The act of sitting down together to share *meaai* is used to connect with others, show alofa, and talk, and in this sense, *meaai* for Pacific Islanders is not only a perfunctory necessity to ensure survival and maintain sustenance, but is part of their identify. Sharing *meaai* was one way that participants felt they could share ideas and connect with peers: *"It's (meaai) very important and is a way of communicating, you know, to have cups of tea and food with others. You end up sharing ideas and having the odd laugh"* (*Talanoa* 4).

Participants shared their collective thoughts around suggestions for how to improve or modify the talk on nutrition to make it more relevant to Pacific people, suggestions included discussing examples of common cultural foods and cooking methods from a Pacific perspective: *"It would be good if they looked at the different diets of different groups of people, rather than just a general"* (*Talanoa* 1). Tailoring content to suit a variety of Pacific cultures seems advisable for PR education classes in CMH since Mangere and Manurewa have a large population of Pacific people. Participants suggested that this would be a practical way to incorporate meaningful examples relevant to their lives.

Historically, Pacific people in the Pacific Islands utilised their knowledge of the land and sea to provide natural resources for nutrition. Through the colonisation practices and

the introduction of more processed foods, the Pacific diet has adjusted, contributing to a rise in NCDs and a diminished awareness of what is healthy versus what is not. Participants acknowledged that there has been a loss in knowledge around diet and nutrition:*" You don't always know what's good and don't eat the food that's nourishing nowadays, it (the education) has changed my way of eating now"* (*Talanoa* 4).

In the *talanoa*, participants expressed that even though the class on nutrition was not able to provide targeted advice within the context of Pacific cooking traditions, participants indicated that they trusted the health professionals who taught the sessions and valued the experience and knowledge that speakers provided. Participants commented that speakers brought in real representations of food, such as apples and bread, as well as printed pictures, which increased participants' engagement and helped them transfer the knowledge shared to their own context, which is reflected in the excerpt below.

> *"You were given pieces of foodstuff and were asked to put it up on a plate to see what's healthy and what's not healthy and the quantity. I think they were good; they knew what they were talking about."* (*Talanoa* 1).

While the introduction of Western medicine has influenced Pacific health and wellbeing more positively, for instance medicines such as antibiotics, other Western products such as processed and packaged foods has sadly had a negative impact on the health landscape of Pacific people, causing an increase in diet related chronic diseases such as diabetes. Participants acknowledged the wisdom that previous Pacific generations had regarding their health and diet. In the *talanoa*, some participants reflected on the need to uphold respect for their own bodies, just as their ancestors did.

> *"I think of our forefathers as well, how they took the time to listen, and um respect your body a bit more. I understand now because of my condition but if you respect your body a bit more and understand it so you know what is needed"* (*Talanoa* 4).

In addition to the cultural importance of *meaai* for Pacific people and the use of props to convey their message, participants also identified other factors that made the presenters of the nutrition topic a particularly well-presented session. Thus,

participants highlighted the ability for the speaker to read the room and ascertain the level of knowledge that current participants had on the topic. Furthermore, the use of visual representations of food groups and providing interactive activities increased engagement by participants. This created a sense of collaboration between speaker and attendees, fostering further *Teu Le Va* between not just participants but with all involved in the education session regardless of their cultural backgrounds. This appreciation of a mixed methods approach is clearly expressed in the following quote: *"Everyone learns differently, I think a combination of all these things (visual, practical) makes a big difference. You feed off one another hearing their perspectives"* (*Talanoa* 5).

Participants felt speakers should be guided by the group's experiences, backgrounds, and through asking questions, sharing, and discussing amongst the group. Participants in this study have a wide array of educational backgrounds and life experiences that have shaped their worldviews, being conscious of these elements as a speaker is vital to adjust their teaching approaches accordingly. The PP in this study found collaborative and peer learning strategies particularly effective, which suggests that these are teaching approaches that PR education speakers should be trained in to benefit not just Pacific patients but everyone attending the class.

The role of health literacy and being able to identify and assess if PP can interpret health education is often an area lacking among health professionals. One participant shared his perspective on the diversity in PP abilities to learn, absorb, and understand health information provided. Thus, *Talanoa* 1 described how, in his experience, many Pacific people may interpret dietary education quite literally and as directed. This is often due to the deeply ingrained cultural value of being respectful (*Fa'aaloalo)* of experts and holding their advice in high esteem coupled with reduced health literacy levels. This notion is further explained further by *Talanoa* 1 in the quote below:

> *"If you could look at the different diets of the different groups of people, rather than just a general. I understood because I am educated you know, but for those that don't have that capability or understanding, if you don't mention their type of food in the programme, they all start eating bread, because that's what they are told to do, you know. So, you could say to them instead, 'your national foods', or 'your own staple' foods."* (*Talanoa* 1).

This further highlights the importance of using meaningful collaboration and peer learning strategies in the classroom to allow participants to share and reflect on their understanding of what was being taught and learn from each other.

Negative experiences of the education topics

In addition to sharing positive experiences, participants also shared and discussed incidents of negative experiences where participants all felt that certain topics had no meaningful relevance to their health journeys or respiratory health condition, which diminished participants' view of the programme and made them less willing to attend subsequent sessions. Participants described the presentation and content of the 'smoking cessation' topic as irrelevant to their learning and SM of their respiratory disease.

Smoking cessation is targeted at participants who may still be smoking and discusses supportive devices and ways to quit smoking. This topic was reported by some participants as being a topic that did not feel appropriate for their situation and therefore it did not make sense to them*: "I'm not a smoker and I didn't understand that one (topic)."* (*Talanoa* 3).

Participants' point that smoking related issues were not relevant to non-smokers suggests that topics that may only affect a small proportion of participants should be reviewed and be excluded from group topics and targeted as one-on-one education. However, participants shared some constructive feedback on the topic of 'smoking' that could have made the topic more relevant for PP. As illustrated by the quote below, participants proposed that information on how second-hand smoke may affect them and their lung conditions, as well as suggestions for how to help family members quit smoking would make the topic more relevant.

> *"Smoking cessation, she just came and showed all the products and then she left, it was helpful for two people because they were smokers, but it would have been good if the presentation involved how we would get affected by family smoke or something like that."* (*Talanoa* 5).

The relevance of broadening the topic to suit the community and in particular the participant groups' requirements is crucial to ensure that participants engage with the programme and learn to be able to better self-manage their lung conditions. A

comprehensive approach to education should be considered as suggested by the participants, so that topics can be presented in a way that provides education relevant, as often the individual needs are not always seen as is important as the wider *aiga* health and wellbeing.

What topics could be improved based on Pacific Participants experiences

Participants reflected on their experiences in the PR education programme when asked what topics should be included that were not. Topics were identified by participants and explanations identifying the importance of these topics were shared.

Topics that PP felt should have been included in the education programme were:

1. Work and income benefits available.
2. Basic healthy housing tips and tricks.
3. Age concern: elderly support, resources, and advice
4. The role of health navigators and how to access them: to assist with housing Aotearoa NZ, WINZ, and health system processes and policies.

Participants reflected on the possible impacts of environmental factors such as housing conditions, contributing to their overall health and wellbeing. Participants were able to identify areas in their lives, for instance healthy housing, that they needed to improve to better manage their respiratory health. At the same time, it was noted that there is wide acknowledgement by PP that not all Pacific community members have the knowledge, awareness, or resources to be able to create a healthy environment at home. This was evidenced with one participant sharing the advantages of adding an additional education topic which provided a more holistic approach and incorporated the environmental cocoon that surrounds a Pacific person's wellbeing as discussed in the description of the *fonofale model* in section 3.3.1.

> *"I have been to a number of houses and friends' places who live in housing homes and I am not too sure as to if they are guided to how to keep their houses clean because you walk into some of the houses, you know they are beautiful homes if you look on the outside but once you get inside you feel like spewing you know because they don't look after it and they don't care for it, so you know umm those are some of the issues that lead to these problems you know. The breathing problems, the respiratory problems, you know ventilating their home, some of these people they just close their houses down and don't let the air flow through."* (*Talanoa* 1).

In addition to being able to effectively SM their respiratory health, participants face further challenges around socioeconomic stability. The ability for participants to access appropriate and timely financial support has a big impact on not only mental health but also physical health, both of which would make PP more likely to be in the right frame of mind to attend PR sessions. Financial support for things like petrol, could allow PP to travel to and from education classes and reduce the likelihood of PP having to choose between attending or paying things like household bills. One participant expressed how many Pacific people find it difficult to know what financial assistance is available to them from the government, an issue which *Talanoa* 5 summed up as "*you don't know what you don't know*". Following from this discussion, the suggestion was made to invite a guest speaker from the Ministry of Social Development to explain what work and income (WINZ) financial benefits would be available to them and, who would be able to give advice on individual situations on the day: *"You know I work with a lot of people (Pacific people) who have problems with WINZ and housing Aotearoa NZ"* (*Talanoa* 5). The quote above emphasises the distrust with government agencies, and the difficulties that PP have navigating systems within the government.

Participants are often required to navigate many different governmental department processes and the participants involved in this study generally felt that navigating any governmental system, including social development, housing, and health services, were often confusing and difficult to understand. Many factors contributed to PP emotions including language barriers, poorer literacy, poorer health literacy, and bad experiences with government interfaces in the past. Therefore, participants felt that having a Pacific advocate or 'health navigator' that could assist in their health journeys and understand the effects that someone's SDH can have on one's holistic wellbeing, could improve their experiences: *"People fight so hard to navigate systems. If there was anyone like that (health navigator), that could help navigate those things"* (*Talanoa* 5).

While PP in this study varied in age, they shared collective concern for elderly PP and discussed how, from their experiences, elderly PP often faced additional pressures compared to younger participants. These pressures included isolation and loneliness as well as financial exploitation from family members. The suggestion of including a guest speaker from the charity organisation Age Concern NZ was mentioned, as it would

provide additional resources for PP in the advocacy of participants over the age of 65 to ensure these older participants have access and support to the services they need to thrive: *"Same sort of thing (as the financial benefits), with a lot of elderly people having problems, so maybe age concern (could be added)"* (*Talanoa* 5).

4.3.2 Theme Lua: Fa'alavelave's (other commitments and responsibilities) for Pacific participants

'*Fa'alavelave*' is a Samoan concept that encompasses the individual and the *aiga*'s obligations or commitments. This theme explores factors that participants identified as *fa'alavelave's*, including the role of *aiga*, work commitments, and additional co-morbidities that may impact PP's engagement in education sessions.

The identity of Pacific people is core to who they are as people. The Pacific identity consists of many facets, including culture, *aiga*, and values. To situate this theme, a brief recap of the *fonofale model* is provided, as described in chapter 3.3.1. The *fonofale model* describes the many pillars and contexts that influence how a Pacific person perceives and understands the world (Ministry of Education, 2023). This holistic approach encompasses physical, spiritual, mental, and other factors, including culture and *aiga*, as the *pous*, roof, and floor of the *fale* (Ministry of Education, 2023). Thus, the building blocks of the *fale* are all surrounded by the environment, context, and time which can all contribute to a person's overall health and wellbeing. The following subthemes outline various aspects of the PP's lives in relation to the *fonofale model* and describes how this can impact PP's ability to access, engage, and attend education sessions.

O le Tagata ma lona aiga, O le Tagata ma lona fa'asinomaga (Every person belongs to a family, and every family belongs to a person)-Samoan proverb

Aiga, which is represented by the floor or the foundation of the *fale*, signifies the roots of a Pacific person's health and wellbeing. This subtheme discusses how the role of *aiga* is incorporated into a person's wellbeing and is fundamental in the management of chronic health conditions for Pacific people.

In their *talanoa*, participants mentioned that *aiga* was important to them and their health journeys. Many Pacific households are multigenerational with each person having a key role within their *aiga*. Participants were often required to wear multiple

hats and undertake a variety of tasks with and for the *aiga*. Responsibilities described included being the main driver for *aiga*, the main financial provider, looking after children and grandchildren and at times being 'health navigators' for other family members who did not speak English. Although in other cultures these responsibilities may be seen as a burden, the keen sense of obligation to the collective *aiga*, is an important Pacific value which underpins many Pacific paradigms. The idea of the collective implies that, if the *aiga* is healthy, looked after, and thriving as the foundation of the *fale*, then the rest of holistic facets of the 'Fonofale' model are also strengthened.

Often, at times, it is not only the participants who have chronic health conditions, but also other *aiga* who are dealing with chronic health issues and additional health appointments as shared by the quote below.

> *"There are too many appointments, something has to give. So, I prioritise my wife because she is very important to me. We've been married for over 50 years now. So, she's at a stage in life that I could lose her at any time so I like to give her as much comfort as I can my next one (responsibility) is my son, being special needs and all that, I see that as one of my responsibilities to watch and make sure he's comfortable and that he's able to participate in activities".* (*Talanoa* 1).

Participants shared how navigating and juggling whose health is more important is often a challenge: *"so it's only when my wife also needs to be at the clinic or something, then I run into a bit of juggling around"* (*Talanoa* 1). One participant shared how important his wife's health was to him and that he often put her wellbeing before his own, which affected his participation in PR education sessions: *"yeah the sessions that I was not there was because of other appointments or attending clinics because my wife had clinic appointments… this is the normal thing that I put myself last"* (*Talanoa* 1).

Additionally, it highlights systemic barriers within the health system such as siloed services and systems focused on individual health diseases, rather than multimorbid programmes and services where Pacific people can access health appointments for the whole *aiga* in one location. This may reduce the need to prioritise one appointment over another, reduce travel and expenses associated with attending multiple health appointments, and provide a more *aiga*-centred approach to chronic health.

Moreover, *aiga* were seen to be motivators for PP in attending sessions; when participants were able to bring *aiga* to the sessions, it encouraged a collective approach to managing their respiratory conditions and offered a unique *aiga* perspective of living with someone who has a chronic disease: *"That's why it is important to have family there, so they can share their views from the outsider looking in."* (*Talanoa* 5). Conversely, participants felt if *aiga* attended, they might have more empathy, understanding, and insight into the world of living with a chronic health condition.

> *"Yeah, because it helped them (family) too, to understand what I'm going through and they're also learning what I'm going through. The problems and coughing and walking disability and all of this."* (*Talanoa* 2).

The importance of having *aiga* involved in and be supportive of their health journey was illustrated by *Talanoa* 3, who felt comfortable sharing with her children what she learned, and her children, in turn, encouraged her to attend when she was not motivated to go: *"I know that it made a difference (having family support) because I've got more encouragement and support from 50% to 75%"* (*Talanoa* 3). Most participants felt the need to follow up on education taught in sessions at home online. However, they expressed uncertainty about how to navigate online platforms and felt overwhelmed at the sheer volume of information available on platforms such as google. Their unfamiliarity with technology such as computers, smart phones, and tablets and limited knowledge around reputable sites related to respiratory health contributed to their feelings of unease. Utilising *aiga* to facilitate access to technology and the internet to help PP further expand their understanding of issues covered in the PR sessions at home were enhanced benefits of involving *aiga* as part of the learning process.

> *"We are lucky that we have technology like the internet, you know I use it a little bit, but the kids help me and have a look and follow up on the things I study."* (*Talanoa* 3).

Aiga played a significant role in being able to access the education sessions by providing transport for participants to and from the education sessions. The arrangement was motivated by various reasons, including PP's physical inability to

drive due to other comorbidities such as arthritis, only having access to a shared vehicle within the *aiga*, or the cost of petrol.

> *"Transport was pretty good; I had my wife and daughters dropping me off and they wanted to come in with me and they sort of helped me do things as well."* (*Talanoa* 2).

Participants voiced that if they were allowed to bring *aiga* to sessions, they felt there would be added benefits in their SM: *"I think it would be really helpful and a great support to have family there."* (*Talanoa* 5). These benefits included support with medication regimes, remembering and encouraging engagement with physiotherapy exercises at home, supporting retention of education learnt in classes such as "what their disease name was" and understanding their SM plans. In addition, having *aiga* present provided the confidence needed to ask questions and offered the PP a sounding board to discuss information learned in class, therefore contributing to improved health literacy. Conversely, participants voiced that there appeared to be little encouragement from staff for participants to invite *aiga*, and so *aiga* were not routinely encouraged to attend by PP.

> *"I have never asked him (husband) to come in, but it's hard for someone like me to explain what I had (condition) and even my children ask me, and I just tell them briefly what it is that I have and what I've learned from our sessions, but it would be good for them to hear it from people who know more about it."* (*Talanoa* 5).

There are numerous factors contributing to *aiga* not attending education, including the availability of *aiga* to attend during work hours, cultural reasons including PP being too shy or feeling too much like a burden to ask *aiga* to attend, or being uncertain if PR teaching staff would allow *aiga* to attend. Overall, all participants indicated that they would find it useful if *aiga* could attend the sessions. Therefore, health professionals working with Pacific people should consider how they might adapt their initial assessments to consistently encourage participants to invite *aiga* where appropriate.

Work commitments

Another barrier PP face when it comes to attending PR education sessions are their work commitments. Due to the inequities that Pacific people face regarding the prevalence of chronic health conditions, they are more likely to get respiratory

conditions at younger ages. As mentioned earlier in the subtheme '*O le Tagata ma lona aiga, O le Tagata ma lona fa'asinomaga* (Every person belongs to a family, and every family belongs to a person)', many PP are the main financial providers for their *aiga*, and despite having symptomatic chronic respiratory diseases, they are still required to work and support themselves and their *aiga*. Most PR education sessions unfortunately run Monday-Friday and during work hours, eight to four pm. PPs expressed that their wellbeing was important to them, and therefore, they were dedicated to attend sessions despite their work commitments: *"it was right in the middle of my workday, and I kept up with it for a year but then I changed my work schedule."* (*Talanoa* 5). However, this was not sustainable in the long term, and some participants had to finish PR education early or transfer to other well-being programmes outside of work hours to continue working on their SM strategies.

> *"I had to stop the classes because it was taking three hours out of my workday that I have to make up…. They don't cater to people who work, so I had to go to green prescription."* (*Talanoa* 5).

The limited availability of PR education programmes outside of the normal working day and week may be a barrier to PP who are employed. This emphasises the need to better cater to the diverse needs of the working Pacific population. The financial burden of taking approximately six hours a week off for eight weeks can have major implications on employment arrangements and may make it hard to earn enough in that time to afford necessities such as food, power, housing, and transport costs. The lack of education classes that are held outside of working hours represent an added burden to those main breadwinners who are affected by respiratory disease as it puts them into an impossible position where they must decide to either forfeit their regular income or forfeit their own health. Since being unable to access PR education early in the disease process can lead to frequent hospital exacerbations, reduced participation in ADLs, and earlier mortality, it seems crucial to ensure that PR education accommodates this vulnerable PP group.

Other comorbidities

The nature of Pacific health today is that most people have more than one health related condition at any one time. This can mean that PP's time is often stretched across many health services and specialties, often having to attend several

appointments in one day. PPs recounted times when they were unable to attend education sessions due to other hospital appointments and the exacerbations of other chronic conditions which prevented them from physically being able to attend: *"A few times (I was unwell), sometimes I had blood tests or other appointments…"* (*Talanoa* 3). In addition to this, the risk of frequent exacerbations related to their chronic conditions due to reduced SM strategies, reduced access to timely appointments, and financial barriers could hinder their participation in and attendance of education sessions: *"I think I missed some but not that many, it was because of doctor's appointments and my knee pain"* (*Talanoa* 2).

One participant had a vascular condition which caused increased pain after prolonged walking. This condition prevented him from walking to the bus stop to attend the class: *"I had problems with my leg because of blood clots so I couldn't walk very far and that was a major concern, where I couldn't attend"* (*Talanoa* 4). This participant voiced feelings of being a burden to staff members as one of the core reasons for not accepting support with transport to and from PR education sessions: *"I didn't want to be a burden, put the money to better use instead of using it on a taxi"* (*Talanoa* 4). This highlights a unique attribute that PP have, which is that they often don't want to be a burden on the system, and therefore are more likely to politely refuse support, whether it is financial or just resources. This can sometimes occur despite the PP having a real need for support. This sense of humility is common among Pacific communities, where taking resources for one individual and not for the collective benefit of the whole community can be seen as selfish. If the programme offered all participants access to multiple avenues of funding and transport options, for example bus fares, taxis, petrol vouchers, this may make PP more likely to accept support provided by staff members, especially if it is seen as the 'norm' rather than PP being singled out and offered support individually.

Finally, there have been changes in how services provide health care since COVID-19, thus experimenting with alternative ways to provide education to Pacific people who physically are unable to attend, for one reason or another, may perhaps mitigate some of these physical barriers to access education. Telehealth or telerehabilitation should be explored further in future research to ascertain the benefits for Pacific people.

4.3.3 Theme tolu: Teu Le Va (Nurturing of relationships)

A common theme that emerged from participant interviews was the awareness of and support for this melting pot of cultures, values, upbringings, and experiences that assemble in the PR education classes. Despite differences between Pacific cultures, there are also similarities such as the importance of building relationships and creating a safe and nurturing environment to engage in meaningful discussion: *"It was sharing the knowledge of something I didn't know that was very interesting for me"* (*Talanoa* 4).

The importance of feeling a sense of belonging

The role of culture is embedded in the identity of the PL. There are many distinct cultures within Pacific people and although they have shared values, they also have individual cultural practices, foods, and ways of doing things.

> *"There are some (guest speakers) that did not fit in with the Pasifika way of life and some who didn't understand the differences within Pasifika, and we were sort of looking at it from one angle, so our presentations were coming from other Māori perspectives, pakeha perspectives, and even Samoan and the Tongan perspective."* (*Talanoa* 1).

During the participant interviews, the acknowledgment of the role of 'culture' was noted. Despite education sessions endeavouring to culturally adapt materials, for instance through handouts that were translated into some Pacific languages, there was a sense that not all Pacific cultures were being acknowledged. This was particularly evident with the Fijian Indian participant. This participant reported feeling isolated not just in PR but in the health system because they did not fit into the category of Asian but were also excluded from the Pacific category. Unfortunately, this often translates into service delivery which does not always fit with Fijian Indian Pacific identity, which has formed over many years living in the Pacific.

> *"My thinking is that the systems didn't quite cater to everybody it was biased towards pakeha, Māori and bias towards the Samoan and Tongans and some other islands, but we have Fijians which were sometimes included but Fijian/Indians we were totally out of the picture."* (*Talanoa* 1).

Acknowledgment and understanding of the diversity and rich history of the Pacific Island nations and their journeys to Aotearoa NZ are fundamental elements in creating a safe learning environment for all PP's. The uniqueness of the Fijian Indian culture is a controversial discussion within Fiji and in Aotearoa NZ. There has been some debate around their identities which stems back to a time when the British brought Indians over to Fiji within the Pacific islands, often through deception, to work as indentured labourers on the sugar plantations (Cocom, 2023). Indentured labourers were often exploited and marginalised; however, their historical presence in Fiji has created a large group of Fijian Indians which holds its own distinct culture and has merged cultural norms, foods, and practices to form an Asian-Pacific fusion (Cocom, 2023). The PP who identified as Fijian-Indian felt he had to fit into the category of Asian, but subsequently not always being recognised as Pacific affected his ability to connect with others in the group: *"My feelings were, you've got to stand up and say 'hey what about us'"* (*Talanoa* 1).

This highlights significant learnings for health professionals around the diversity of identities and mixture of histories that PP have. Including all cultures in the discussion and decision-making around the development of education programmes and topics be beneficial in providing an inclusive environment.

In addition, the values of reciprocity and sharing of knowledge were commonly discussed among participants. The notion that one person who has knowledge can consequently uplift the collective by sharing that knowledge for the betterment of the community or group is a crucial concept to understand within Pacific cultures: *"Our culture is going to make three or five of us become one, because if one of you knows more than me, it's still going to lift me to know more."* (*Talanoa* 3).

Peer support, or peer assisted learning, is a process where participants learn from each other's experiences. It is a common strategy utilised in education settings across Aotearoa NZ. Peer learning encourages individuals to collaborate, communicate, and take responsibility for their own learning and development. Similarly, in Pacific cultures where skills and knowledge learnt within the village such as fishing was found not only to benefit that individual, but it also created nourishment through food which fed the

whole village. Skills and knowledge would then get shared with others, with generational benefits occurring.

The different perspectives and collective life experiences that participants and staff bring to education sessions helps to bring richness to the sessions, which is a notion that participants considered to be valuable. This reflects how *aiga* in the Pacific Islands collaborate towards a shared goal and in partnership with each other: *"Most of the islanders are people working together, from school and church, and you know, families in the islands like working together and sharing."* (*Talanoa* 3).

The importance of building meaningful peer relationships

Teu Le Va is a Pacific concept that focuses on nurturing the space between two people and within wider relationships. Participants were clear that connection and relationships, or *Teu Le Va*, were valuable facilitators which created a positive atmosphere for learning during education sessions. Participants understood that there were distinct cultures and felt that, regardless of culture or background, participants valued connection with those whom they were spending time with. It was noted that if they saw people that were "like them" it fostered feelings of comfort during the education sessions. *"For our people even though they are shy, it's important that you know who each other are, so having name badges and or virtual names displayed."* (*Talanoa* 5).

One way in which participants felt staff could easily build connections was through greeting participants in their preferred languages: *"A greeting in their language before the session"* (*Talanoa* 5). Dedicated time for *Teu Le Va* at the start of sessions for introductions was voiced as evidenced in the following quote:

"Sometimes you just didn't know who was sitting in that class so yeah I think the introduction part is very important, even if it's repeated weekly because there are some new people coming in that don't know and just saying their name is ok, but you want to know a little bit more so that you know how to relate to each other" (*Talanoa* 1).

Participants felt this would indicate that staff were willing to go the extra mile in making PP feel welcomed and at ease, thus nurturing the Va. Connection was mentioned as an important facilitator to being able to build relationships with peers

and staff. This led to meaningful discussions and being able to share positive and negative experiences within their health journeys. Participants felt when they were able to share a little bit about themselves with others and this created a positive environment with peers in the group. When this did not occur, the feeling of not knowing who was in the group and where they came from was unsettling and impeded engagement and discussion in the education sessions.

> *"You know when they know who you are but if they don't know… it's harder. You know I've been finding it very common here that they (other participants) are suspicious of who you are."* (*Talanoa* 1).

Creating opportunities for peers within the education sessions to meet in an informal setting and be able to *talanoa*, share *meaai*, and words of encouragement created a constructive experience and facilitated a higher likelihood of future attendance. Frequent exacerbations can often occur through winter months, which can affect both mood and participation. Peer support created a space for participants to return to after being ill.

> *"I talk to some people in my group and go how are you? And they say I'm not too bad, I just got out of the hospital, so we need someone to encourage us when we come back from the hospital to cheer us up."* (*Talanoa* 3).

The importance of relationships with staff

This subtheme is focused on having positive relationships with staff. Barriers to engagement and access to healthcare for Pacific people generally suggest that the main deterrent is the lack of relationship and trust with health care professionals. Trust and establishing a connection with staff were especially important in creating a safe environment for PPs to share vulnerability regarding their health. Having a regular face that was familiar and approachable led to an overall feeling of being supported: *"They're (staff) always supportive, they always help."* (*Talanoa* 2).

Navigating difficult health conversations and topics can often be confronting for PP, with many topics being very new and often present scary realities that PP are still trying to come to grips with. One participant voiced the fear of getting breathless when venturing out of her comfort zone and the possibility of her condition deteriorating which was her lived reality. Topics including end of life care were

identified as being confronting and were worrying discussions for PP's. However, accessing experts in the field of respiratory disease, including nurses, doctors, and physiotherapists, twice a week provided some reassurance for PP who may have had limited exposure to or reduced understanding of the progression of the disease and the interplay of this with other chronic medical conditions: *"Confidence in staff understanding the wider medical background of participants was important."* (*Talanoa* 3).

In addition, Pacific staff members with similar values or staff members who had a basic knowledge around Pacific cultures, or the community culture, increased trust and likelihood of returning weekly for further fellowship and connection. Most participants reported being thankful to the staff for providing education sessions to them. The capability of health professionals in approaching sessions and participants in a kind and caring way was an additional mediator in completing the education sessions and most importantly, being able to increase awareness and SM skills: *"You really enjoy life better because it's not very often you get somebody (staff) that's kind and caring, so take the opportunity to learn and then try and share it"* (*Talanoa* 4).

Sadly, there were times when participants felt they couldn't share their opinions in sessions, either due to time constraints, feeling shy, or feeling too uncomfortable to raise their voices. "Cultural shyness" is a common characteristic, particularly in larger group settings, where the natural instinct for PP is to sit and listen when other ethnic groups may at times dominate the sessions, reducing the ability for PP to share their thoughts or gain deeper insight into the education topic in relation to their own health. However, where this cultural characteristic occurred, PP sought out time after sessions to discuss concerns with staff one on one: *"If I couldn't share my views in the group, then I definitely had the ears of the staff that were there"* (*Talanoa* 1). Facilitating an opportunity for all participants to share or contribute to the wider group discussion could have encouragingly nurtured the "va" between staff in participants: *"I wish they could have stopped and made sure everybody is okay, and if they have questions to ask, that I'm (staff) available to listen."* (*Talanoa* 3).

4.4 Conclusion

This chapter has outlined three of the five main themes, namely themes Tasi through to Tolu and their sub and sub-subthemes, which has provided insight into PP's experiences of the education topics provided at CMH. Using a holistic *aiga*-centred perspective, participants were also able to provide feedback on what topics they considered helpful or unhelpful, and made suggestions for ideas around additional topics that were important and relevant to them *aiga*. In summary, "the PL" has been identified as a diverse and holistic person who has many responsibilities and wears multiple hats within their *aiga*, including financial provider, driver, health navigator and more. PL have many responsibilities that are often geared towards what is beneficial for the collective rather than prioritising their own health needs, which directly affects attendance and participation in PR education. Meaningful relationships with peers and staff members are important for creating the best learning environment for PP to share, absorb, and process the information provided; when this is not achieved, it may have catastrophic implications on health literacy components such as understanding health information, completion rates, and SM skills.

Chapter 5 : Exploring the experiences of the 'Pacific learner" within Pulmonary Rehabilitation in Counties Manukau

5.1 Introduction:

Pacific people in Aotearoa NZ disproportionality face poorer health outcomes (Barnard & Zhang, 2021). One of the health challenges faced by Pacific people is a higher prevalence of chronic respiratory conditions, with the number of hospitalisations related to respiratory diseases 2-4 times higher compared to their non-Pacific counterparts (Barnard & Zhang, 2021). While interventions such as PR exist targeted at people who have chronic lung conditions, these are poorly accessed by Pacific people (Barnard & Zhang, 2021; World Health Organisation, 2023; Ministry of Health, 2023; Statistics NZ, 2013; Candy et al., 2020; Chiyesu & Rasmussen, 2021).

PR at CMH consists of an 8-week combination of exercise and education, which supports SM of their chronic respiratory conditions (Collins, 2004; Roberts et al., 2018). Education sessions usually consist of a didactic approach with the education provided to participants in a group setting (Collins, 2004; Roberts et al., 2018). Exercise has been found to significantly improve symptoms, such as reducing and managing breathlessness, improving mood, and overall increasing exercise capacity (Collins, 2004; Roberts et al., 2018; Lung Foundation Australia, 2021). However, the education component of PR has less evidence to support its effectiveness, even more so with PP (Candy et al., 2020; Chiyesu & Rasmussen, 2021). Understanding the barriers and enablers of PP accessing these programs will help clinicians to deliver education that PP can access and empower them to self-manage their respiratory disease.

5.2 Methods:

5.2.1 Study design:

A qualitative interpretive study was used to explore the experiences of PP who attended education sessions in CMH. The use of '*Teu Le Va*' (nurturing the space between people, and essentially focusing on relationships and mutual respect) and '*Talanoa*' (approach to communicating and exchanging knowledge and stories in Pacific cultures and allows rich data to be collected through storytelling) allowed the

research to be authentic to Pacific Values, ways of being and ways of knowing (Vaioleti, 2006; Anae, 2016; Vaka et al., 2016). The study was conducted in South Auckland between October 2021 and January 2024. Ethical approval for the study was received from the Auckland University of Technology Ethics Committee (AUTEC) and expires on the 7th of March 2025.

5.2.2 Participant Selection & Recruitment:

Participants were defined as PP who had attended PR education sessions within CMH and fit the inclusion criteria; see Table 3 below. Recruitment focused on two programs, with higher proportions of PP.

Table 3

Inclusion and exclusion criteria

	Inclusion criteria
1	People who self-identified as Pacific or were born in the Pacific
2	Attended at least 50% of the education sessions
3	Over 18 years of age,
4	Confirmed diagnosis of a lung condition
5	English speaking
6	No cognitive impairment

The demographics of the participants are presented in Table 4. Purposive sampling strategies ensured various ethnicities, ages, genders, and socioeconomic statuses. This helped gather diverse voices and perspectives.

Table 4

Patient demographics

Participant	Ethnicity	Age	Gender	Currently employed	Highest education qualification
Talanoa 1	Fijian/Indian	71	M	No	University diploma
Talanoa 2	Niuean	67	M	No	5th form high school
Talanoa 3	Tongan	57	F	Yes	Polytech certificate
Talanoa 4	Cook Island Māori	60	M	No	4th form highschool
Talanoa 5	Samoan	59	F	Yes	Postgraduate

5.2.3 Data collection:

Five one-on-one *talanoa* semi-structured interviews were conducted: four in person (n=4) and one via Zoom (n=1). The *Talanoa*s were between 40 and 90 minutes. Pacific values were embedded throughout data collection, which included the sharing of "*meaai*" (Food) and the offering of '*lotu*' (prayer) before starting. The pre-conversation was initiated and guided by the participant.

5.2.4 Data analysis:

Thematic analysis of the data included inductive, semantic, and realist forms of analysis through a six-step process (Braun & Clarke, 2006). Following familiarity with the data, initial codes were generated and reviewed by the researchers and selected Pacific advisors. Subsequently, draft themes were created and checked against the research question to refine, collapse, merge and organise the generated themes into main themes and subthemes. A narrative for each theme and sub-theme framework was developed (Braun & Clarke, 2006).

5.3 Findings:

The experiences during the educational component of PR is an area that has limited evidence to support its efficacy, particularly with PP. The main findings exploring the experiences of the PL are summarised in Table 5 below.

Table 5

Theme and subtheme summaries for chapter 5

Theme: The pacific learning style and experiences	**Theme: "Knowledge is power"**
In the theme 'Pacific Learning Style and Experiences', participants discussed the barriers and facilitators identified by PP that either positively or negatively impacted their experiences and learning during their time in PR. The PL embodies the characteristics of the 'Pacific way' of doing things in everything they do. To understand the PL, it is vital to understand the core values that underpin a Pacific worldview, particularly about health and wellbeing (Vaka et al., 2016). The concept of *Fa'aaloalo* (Respect), reciprocity, and giving and receiving of *tautua* (service) and alofa (love) is the basis of a PL being able to thrive and engage in a meaningful way to better self-manage their health and wellbeing (Fa'alogo-Lilo & Cartwright, 2021; Ministry of Education, 2023a).	The theme 'Knowledge is Power' focuses on empowering PL to take ownership of their health journeys. This theme also discusses practical ways Health professionals can contribute to and collaborate with PP. The theme "*Knowledge is power"* describes the PP's desire for active participation in their health journeys.
Sub theme: The facilitators to the Pacific learner	**Sub theme: Pacific people want to learn**
This subtheme discusses experiences that contributed to better engagement, access, and participation in education.	This theme outlines Pacific people's passion and positive attitudes towards wanting to better manage their health and wellbeing through learning.

Sub theme: Barriers to the Pacific Learner	Sub theme: Healthy literacy
This subtheme explores experiences or factors contributing to a negative experience, or reduced engagement, access, and participation in education.	This theme explores Pacific people's challenges in obtaining, understanding, and processing health education.

5.4 Theme Fa: The Pacific Learning Style and Experiences:

Participants shared unique perspectives on facilitators and barriers that affected their experiences.

The facilitators to the PL

Factors contributing to 'the PL' thriving in education sessions included learning materials and tools, understanding the past experiences that a PL brings and engaging in discussion with others.

Participants shared how utilising videos, handouts and diagrams, with the opportunity to ask questions in a group setting, were identified as valuable tools that facilitated learning and consolidated topics:*"…handouts you read it, and then you are doing something, and something comes to your mind, and you go, oh, I think I've got a handout on that one so you can always go back to it, and there it is."* (*Talanoa* 1).

To understand a concept, the PL needs to discuss it, and visualize it in a meaningful way through pictures, diagrams, demonstrations, or models (Ministry of Education, 2023a; Pio & Nosa, 2020). PP noted that relevant materials that participants could relate to contributed to understanding the health concepts discussed in the sessions: *"I mean diagrams. Breaking it down even more because a lot of my people don't understand. So, if it's broken right down that it's understandable, I think it would go a long way…"* (*Talanoa* 4).

Many participants had different respiratory conditions with varying severity and symptoms. Hearing the stories of other participants in the group and being able to share their journeys contributed to learning through authentic and personal stories: *"You feed off one another; hearing their perspectives."* (*Talanoa* 5). Oratory and storytelling are important in the Pacific culture (Matika et al., 2021; Gray, 2019). The

ability to share their lived experiences in a safe environment creates a collective understanding of what it's like to live as a PP with a chronic health condition: *"It's good to talk about it with somebody that you can relate to. They know where you are coming from and what my symptoms are."* (*Talanoa* 2).

Barriers to the PL

Participants also identified barriers to learning. These barriers included limited time to connect, the size of the education groups, content-heavy sessions, particularly for participants with English as an additional language, and not having *aiga* present.

PP reported inadequate time to discuss and ask questions. This affected the ability to learn from others in a meaningful way. On average, it was reported sessions lasted between 15 and 30 minutes: *"Not enough time. But we needed a little longer. I mean, if somebody is talking about something very important, then maybe it's worthwhile noting it down and coming back to it later."* (*Talanoa* 1).

In contrast, it was also noted that for elderly PP, having exercise and education sessions back-to-back could be seen as a barrier due to having to be present for 90 minutes or more: *"It can be long for elderly people, but it's important that training and study go together."* (*Talanoa* 3).

Conversely, participants who worked felt that the length of the education session was sufficient. It was suggested that this could change depending on the group's needs. Asking participants what they wanted was crucial in co-designing education sessions.

"I think everything depends on the person, shorter or longer depends on them and what they want, you know it's better to ask them what they want. It's better to ask at the first appointment what time to follow if it's for half an hour or 45 minutes or an hour." (*Talanoa* 3).

Participants reported large session sizes meant limited time for questions, deterring them from attending sessions: *"Sometimes I would come to look at the topic and then look at the crowd and then go, it's okay."* (*Talanoa* 3). Interestingly, some participants noted that the ability to access different formats in structure was beneficial. Overall, while the participants enjoyed the group sessions, some would have liked smaller groups or some dedicated one-on-one sessions with staff to allow for collaborative

problem solving*: "If we could have one-on-one or like groups of three people, I think that would be better because everyone can bring up their ideas."* (*Talanoa* 3).

Participants discussed the cultural practice of *fa'aaloalo* (respect) between younger PP and older PP. During the session, as a sign of respect, younger participants gave the elderly participants the first opportunity to ask questions. This often meant that there was limited or no time for younger participants to engage in questions. *"Tongans are very respectful people*, *and what I'm saying is it's easier in one-on-one because* i*t's harder for me to speak when there are older people because of my culture of respect."* (*Talanoa* 3).

In addition, some PP felt overwhelmed by the amount of information being shared. Having content-heavy education sessions hindered PP's ability to absorb and process relevant education: *"It can be overwhelming when you first get into it. You have so much information to digest, so you know, I suggest little information and often."* (*Talanoa* 5).

While a lack of *aiga* involvement did not affect session attendance, it did make it more challenging to articulate the psychological impacts associated with not being able to breathe correctly to their *aiga*, which affected the collective *aiga* units' shared understanding and support.

5.5 Theme Lima: Knowledge is power

Participants strongly articulated a willingness to learn and be empowered to self-manage. In addition, the many facets of health literacy including finding, accessing, and processing health information provided some challenges for PP and are further described below.

Pacific people want to learn

Like other ethnicities, PP want to do the best for themselves and their *aiga*. This is a crucial step in building on health literacy skills, articulated in *Talanoa* 4: *"I was looking forward to it. I'd make sure I was in a good position where I could hear and see everything. You know it was very interesting".* All PP expressed learning new skills to manage their symptoms: *"It was a way of refreshing my knowledge and new ways of doing things."* (*Talanoa* 1).

A chronic condition can be seen as a sickness that has afflicted the aiga unit (Sinclair et al., 2020). Participants felt that SM of their condition was positively, facilitating taking back ownership over their bodies. In learning SM skills, participants felt empowered and confident: *"You know we are women*; *we are not like men to be strong*. *And I am a widow*. I *often feel fear*. *But when I attended the program of study*, *it helped me to feel confident."* (*Talanoa* 3).

Participants recounted hearing peers' stories, which facilitated lifestyle and medication changes: *"I've never known there was more than one inhaler. I thought there was only one for all. That's all I never knew, so that was something really good for me. It made me change my inhalers to a better one"* (*Talanoa* 4).

Health literacy

Health literacy looks at how people obtain, find, understand, and process health education given to them (Pio & Nosa, 2020; Ministry of Health, 2015). PP face additional barriers to health literacy, such as language, and communication (Pio & Nosa, 2020; Ministry of Health, 2015). PP noted difficulties with expressing correct terminology and understanding the education sessions they participated in.

Although this research project focused on English-speaking PP, one participant discussed the implications of having English as an additional language and the benefits and disadvantages of having sessions that are in English.

"English is a second language for me, but for my future and my health, if I want to know more, then I need to speak more English. I don't mind if my English isn't 100%, *but if I don't try*, *then I don't win."* (*Talanoa* 3).

Using sessions to develop their knowledge of English and health terminology was a positive outlook of attending. However, this can be very daunting in large groups, with the fear of saying the wrong thing being real for some participants: *"I feel like I'm going to say something wrong, so in smaller groups, I feel free to talk and say what I want."* (*Talanoa* 3).

Another consideration is understanding the power dynamics between health professionals and PPs, and the impact this has on adherence to health education and attendance to sessions, which can be significant. PP often uphold respect, trust, and

listen to advice from health professionals verbatim. The respect that often comes with holding a position of power may hinder the ability of PP to make independent decisions about their health, thus reducing self-empowerment.

"But I'm talking about generally at the moment, you might come across people who don't quite understand, so when the person who is speaking says you have to eat these foods, the mind just goes, I haven't been eating taro, so I'm going to start eating taro." (*Talanoa* 1).

Secondly, PP need a safe space to interpret normal symptoms versus abnormal symptoms and causes or triggers that have led to their respiratory conditions. This may be due to preconceived ideas or assumptions about what contributes to developing a chronic health condition. Creating these safe spaces may empower PP to question and find answers to some of their challenges.

"I know because one, I mean a lot of people feel, and I've felt, that at one stage what was happening was because I was getting old, or I haven't been exercising and all that. But now, after going through those sessions, I realise that it's not only that but other things that are affecting, so it's your diet, it's your activities, and the way you live, you know, and even your home situation can cause you problems you know like if you have mould in the house and a lot of dust." (*Talanoa* 1).

Participants also suggested utilising interpreters to ensure access to content in their preferred language. Sometimes, assumptions are made that because a PP can speak some English, this is their preferred communication method (Matika et al., 2021). Asking PP and allowing them to choose is crucial to effective health literacy: *"I love the idea of having an interpreter there for some of them."* (*Talanoa* 5).

5.6 Discussion:

Pacific people have a unique worldview. These findings contribute to the evidence which supports the need for services and health professionals to incorporate PV within health education programmes (Pulotu-Endemann, 2001; Keung, 2018). While evidence exists on how PP learn in university and secondary school spaces, there is scant evidence to support learning in health education spaces (Pulotu-Endemann, 2001; Keung, 2018). Despite this, there appears to be common themes on what PP identifies

as important to success in their learning journeys. The Ministry of Education's 'Pacific values framework' outlines strategies for working with PLs and encourages those teaching Pacific people to incorporate Pacific values within their education structures aiming to improve and drive inclusive environments for PP (Ministry of Education, 2023a). This current research highlights values such as *fa'aaloalo*, alofa, and reciprocity of *tautua* through sharing stories and knowledge, which has led to positive experiences, and subjectively, increased SM. Like the Pacific values framework, this current research found the PV of '*Teu Le Va*' as crucial to engaging in discussion and created a more vulnerable exchange of stories (Ministry of Education, 2023a).

In addition, this research explored different aspects of health literacy identified by PP as either a barrier or an opportunity for development. The Ministry of Health's 'Health literacy framework' provides an overview of how the different aspects of the health system may contribute to building health literacy for all in Aotearoa NZ (Ministry of Health, 2015). A key aspect of this framework discusses the importance of individuals and *aiga* having regular opportunities to provide feedback and collaborate so that active participation can occur (Ministry of Health, 2015). This research confirms PP willingness to contribute and co-design PR education sessions (Ministry of Health, 2015). Parallel to this, is the role of health professionals in providing appropriate resources for PP, using varied media approaches, and seeking feedback from individuals and *aiga* on its effectiveness (Ministry of Health, 2015; Te Whatu Ora, 2023; Muscat et al., 2023). Utilising resources when developing materials such as '*Rauemi atawhai: a guide to developing health education resources in New Zealand*' may offer insight into developing material that meets a variety of health literacy needs across the spectrum (Ministry of Health, 2015; Muscat et al., 2023). Specifically concerning PP, this research discussed programme structure and format barriers such as larger group numbers, restraints on time and challenges with English as an additional language, which for some PP can hinder the 'Va' and affects the 'processing' aspect of health literacy (Ministry of Health, 2015; Muscat et al., 2023). What seems to be clear is that health literacy is not solely dependent on the PL themselves but a growing need for health professionals to review their services to reduce barriers that may unconsciously occur due to a health system that isn't always equitable for PP (Muscat et al., 2023).

These findings also suggest that core Pacific values that underpin Pacific health models of care, such as the *fonofale model*, are critical to understanding the PL's enablers to access meaningful education to them and their *aiga* (Pulotu- Endemann, 2001; Keung, 2018; Mcfall-McCaffery, 2010). Participants highlighted this by describing the importance of the *aiga* in their health journeys. The *fonofale model* approaches the PL as a holistic being (Pulotu- Endemann, 2001; Mcfall-McCaffery, 2010). In this model, *aiga* is the foundation of the *fale* (House), holding a solid basis for the *fale's pous* (beams) to stand on (Pulotu- Endemann, 2001). The ability to have *aiga* present in sessions was seen as a positive experience, enabling *aiga* to participate and understand the participants symptoms. The wider *aiga* unit got a glimpse into the participants world, which encouraged open dialogue among the *aiga* about strategies moving forward. This opens the conversation for PR programmes to consider involving *aiga* routinely to foster an '*aiga*-centred approach' to chronic health management.

PPs felt a deep sense of self and expressed having the opportunity to connect with peers and staff before sharing vulnerable details about themselves as imperative to '*Teu Le Va*'. This mirrors the Pacific values framework whereby relationships and connection are vital facilitators to meeting the needs of PL (Ministry of Education, 2023). In addition, shared knowledge and peer empowerment were seen as a significant enabler in making informed choices about their health. For example, a participant who had recently tried an inhaler, which improved their breathlessness symptom, shared this in the group, empowering other participants to seek changes with health professionals to improve their symptom management, which supports the notion of peer supported learning.

5.7 Conclusion:

In conclusion, understanding PP and their unique needs in health education programmes is vital in improving experiences and health outcomes. This study's key findings suggest that health professionals and services should understand and incorporate key Pacific values such as 'Va', connection, reciprocity and alofa throughout the structure of the education sessions to improve learning experiences and SM. This may require collaboration between Pacific people and health professionals to meet the specific needs of the community. In addition, PP are capable

of being empowered to learn but face health literacy challenges that requires mutual collaboration. This will require a multi systems approach, to ensure delivery, content, learning materials and resources are targeting the full spectrum of health literacy and cultural needs.

These findings increase our understanding of PP's experiences in health education with a specific focus on PR. Future research should consider exploring the experiences of PP with English as an additional language to understand better, the added complexities that language brings to understanding health education and the associated barriers. Additionally, it facilitates ways to identify and review health literacy needs further. Information provided by PP will assist health professionals to be able to adapt and change the service based on PP needs, rather than guessing what they need.

Prelude page

Chapter five was written as a manuscript for publication and explored themes Fa and Lima, looking at participant experiences and learning styles and the attributes that contributed to the PL being able to thrive. Chapter six will summarise both chapter's four and five and discuss the findings in relation to relevant literature discuss future recommendations and implications for future research.

Chapter 6 Discussion and conclusion

6.1 Introduction

This research aimed to gain insights into the experiences of Pacific people who participated in PR education. Specifically, the research aimed to understand the experiences of Pacific people with accessing and participating in PR education, their preferred learning styles, and how the PR health education programme's content could be modified to better meet Pacific people's needs.

Five main themes emerged from the five *Talanoa* with PP. The themes were reported in Chapters Four and Five. These findings served to address the two objectives of the study, specifically:

- To explore Pacific participants' experiences of accessing education sessions through *Talanoa*.
- To identify educational topics and learning styles that fit with what Pacific participants feel is important to them.

This chapter highlights and interprets the main findings of this research in relation to relevant literature. This chapter critically evaluates the importance of the results, discusses the limitations, highlights future research recommendations, and reviews the practical implications for health professionals providing health education for Pacific people that arise from this study.

6.2 Discussion of Findings

The findings are interpreted using the *fonofale model* to help refocus and relate themes to a Pacific paradigm. An overview of the main findings is presented below.

Table 6

Main themes described in relation to the fonodale model

Themes	The fonofale model
The PL's journey and experience of the education topics	The journey, experience, and topics should be centred around the model holistically, i.e. embedded in culture, values, and beliefs (the *falealuga*- the Roof), be supported by the pous

	or pillars (spiritual, physical, mental, and other wellbeing), be grounded by the values of *aiga* (the *fa'avae* - the foundation) and understand the relationship PP have to time, environment, and context.
Fa'alavelave's (Commitments and responsibilities)	The PL wears many hats. This theme draws on the roof (*falealuga*), representing culture, values, and beliefs, such as the strong commitment to the collective.
Teu Le Va (valuing/nurturing relationships)	A core concept for PL is relationships. This is represented by "the cocoon" surrounding the *Fale*. This encompasses context**,** including the impacts of personal relationships on their experiences.
The Pacific learning style and experiences	PL can have positive or negative experiences, and understanding the barriers and facilitators to these experiences may improve PL's health and wellbeing. The cocoon surrounding the *fale* talks about environmental factors such as where education is provided, how it is delivered, and by whom.
Knowledge is power	PL want to be empowered to learn. Historical relationships and barriers in the health system impact PP's health literacy and affect PL's ability to get the most out of education. The cocoon also discusses time factors such as poorer health literacy arising from inequities related to poorer SDH statistics.

The Pacific learner's journey and experience of the education topics

This theme captures the insights gained from participants' accounts regarding the role of expectations and previous educational experiences on the likelihood of engagement and participation in the education sessions. PP highlighted their expectations and prior learning experiences. Interestingly, previous experience had no impact on attendance. Moreover, there was a shared understanding among PP that to manage their respiratory health better, they needed to attend the education sessions.

Additionally, PL discussed the content of PR education in the *talanoa*. Between them, the five participants identified nine topics as meaningful to them, one topic was identified as not worthwhile, and four additional topics were suggested for inclusion in

future sessions. The findings suggested that PL embody their identity as holistic. Therefore, PR education should be reconfigured in such a way as to address the PL's needs to address the PL's whole wellbeing, rather than focus on just one individual health condition, and the course should include a variety of educational topics that are both meaningful and provide new skills to add to the PL's basket of knowledge. A clear rationale for including topics that are targeted at SDH was shared by PP, offering some insight into the effects that SDH have on their ability to self-manage their respiratory conditions.

Teu Le Va (valuing/nurturing relationships)

This theme explored the Pacific concept of '*Teu Le Va*' and the interplay between environmental and social factors. The subthemes included feeling a sense of belonging, creating meaningful relationships with peers, and safe relationships with staff.

The colonisation of the Pacific Islands has had impacts on the values and relationships of the people there that can still be felt today. This is illustrated through the example of Fiji and the follow-on impact this has had on the identity of many generations of Fijians Indians. This included often being excluded from the title "Pacific peoples" when it came to accessing funding and opportunities afforded to Pacific communities, despite being brought up in the Pacific and sharing the cultural values that all Pacific Island nations have in common. Exploring these historical and political histories would raise awareness among health professionals, allowing them to design health education programmes that are sensitive to the historical context and prevent the exclusion of groups within the Pacific community to provide an inclusive environment for all PP.

All participants reported that having connections with other attendees and staff members contributed to their engagement and participation in sessions. A connection was established when the session allotted time for those involved to share information about themselves with the group if they felt comfortable to do so. This helped those involved in the PR education sessions to identify similarities between them which created a sense of community. While opportunities to build relationships were not routinely scheduled, PP tried to engage with each other during break-time when having a cup of tea or biscuit. Additional ways of connecting included staff members using a Pacific greeting, using name badges and introductions before

commencing education sessions, and having ethnic diversity among participants and staff members. Connection is core to relationship building, and relationship building is core to a Pacific paradigm. Therefore, adapting the structure and delivery of PR education to facilitate opportunities for connection would foster trusting relationships and learning within and from peers, making attendees more likely to attend classes over time.

Fa'alavelave's (commitments and responsibilities)

This theme outlined the main '*fa'alavelave's*' that PP needed to consider and prioritise during their time in the education programme that directly impacted their attendance and their ability to engage during sessions. PP held many roles within their *aiga*, such as supporting other *aiga* with their health and health appointments, working to support their *aiga* financially, and navigating life with multiple chronic health conditions other than the respiratory disease. When starting the PR education, PP had to prioritise all their commitments and responsibilities, often placing their health needs at the bottom and missing classes. This could have significant implications for their chronic health management and adherence to SM regimes, with the strong pull to de-prioritise PP's health and wellbeing over other responsibilities within the *aiga* unit.

The Pacific learning style and experiences

This theme outlined participants' accounts of the factors that enhanced their learning, such as essential learning strategies, materials, and peer-supported learning. The theme also captured those factors that hindered learning, including limited time to connect, content and structure limitations, and not having *aiga* present. The diversity in PL means that there are many learning needs and preferred learning styles. Therefore, health education programmes should be structured to deliver content utilising various materials and scheduling time for peer learning in every session, sharing experiences, and including *aiga* so that participants and *aiga* feel fully informed and can better support each other. Pacific people inherently hold a core set of values and respond to learning differently based on upbringing, culture, and learning abilities and needs. The need for PR education to provide various avenues for

accessing education and using many delivery methods would ensure that all learning styles are acknowledged and met.

Knowledge is power

This theme explored PP's desire to be empowered to learn, develop, and self-manage their respiratory health and about the impact of health literacy on this process. The findings suggested that PP are willing to engage in health education but may struggle with different components of health literacy, including obtaining, processing, or understanding the health education provided. This was due to limited experiences in education settings, bad experiences with education in high school, limited access to various learning materials suited to their preferred learning style, and language barriers. Improving health literacy for PP would require a collaborative approach, with health professionals taking the lead in providing suitable and diverse ways of delivering education.

6.2.1 Interpretation of results

Chronic health conditions such as respiratory illness are exceedingly prevalent among Pacific people. These conditions are further aggravated by the community facing disproportionate impacts because of SDH issues such as housing conditions and higher smoking rates that affect Pacific people from younger ages (Heaps, 2023). Thus, Pacific people face significant inequities compared to their non-Pacific counterparts (Heaps, 2023). This can have a substantial impact on the quality of life, mortality, and morbidity that Pacific people face when developing chronic respiratory illnesses (Heaps, 2023). Gold standard health programmes such as PR aim to address and enable people to reduce the burden of symptoms associated with respiratory disease, which seek to improve quality of life and empower SM strategies for those facing chronic respiratory conditions (Candy et al., 2020).

Understanding the experiences of Pacific people in PR is crucial, but more important is understanding Pacific people’s worldviews, core values, and the factors that help Pacific people learn and understand the information conveyed in the health education session is vital (Harwood et al., 2018). If PR services can approach education from this perspective to empower SM in participants, not just as individuals but as a collective,

this may be fundamental to improving access for and engagement with the course among Pacific people.

These findings emphasise the importance of collaboration with Pacific communities to understand their needs, as often they have solutions to tackle their challenges. In addition, designing culturally safe, responsive, and dynamic health education programmes that empower and uplift Pacific people is fundamental to addressing the barriers and facilitators to accessing education in PR.

The above five themes have been merged to create overarching meta themes, which are further explored below. These meta themes address the "Pacific learning styles and experiences and the impacts of *Teu Le Va* and fa'alavelave's on their experiences", "the PL's experiences of the education topics" and the issue of "understanding health literacy for Pacific people".

6.2.2 The Pacific learning styles and experiences

One aim of this research was to explore the concept of the 'PL' or the Pacific way of learning. The PL and learning styles were a core theme that that reflect the factors that either enhanced or hindered their willingness to engage with the sessions and learn about SM and their illness.

The key facilitators identified from the data included a wide variety of learning materials, the health professional's ability to acknowledge and understand PLs as diverse, and an understanding of PL's learning needs, including using visual, and activity based, and meaningful oratory learning approaches to consolidate learning and contribute to *Teu Le Va*.

Understanding Pacific learning and teaching strategies is limited within the health education field. However, strategies for working with PLs are widely researched within primary and tertiary education spaces. Important components shared in the education field suggest that working with PLs should include understanding the diverse interplay of cultures and worldviews they hold and then working collaboratively with Pacific people and their *aiga* to achieve a collective goal within that learning space (Ministry of Education, 2023b). Similar to findings in this research, the Ministry of Education (2023b) emphasised that identity and culture are core to PPs wellbeing.

A common finding in the research exploring PLs is the importance of culturally appropriate learning materials. A study completed by TuiSamoa (2022), which looked at the experiences of Pasifika women with urinary incontinence, also noted issues with accessing appropriate health information among their participants. In both studies participants felt there was a need for information to written in a way that the target audience could understand. However, TuiSamoa's participants felt that culturally adapted materials that used simple terminology and were modified to suit the needs for each Pacific group would improve their educational experiences and engagement (TuiSamoa, 2022).

In accordance with TuiSamoa's (2022) point of adapting health programmes to suit the learners' needs, this study identified the need for health professionals to get to know PP's and their *aiga* deeper, involving them in all aspects of the health journey. Not surprisingly, the value of culturally adapted programmes has been found to create encouraging experiences for Pacific people when undertaken correctly and authentically (Dingwall et al., 2015; Pio & Nosa, 2020; Shahab et al., 2019). Shahab et al. (2019), for instance, explored the experiences and perceptions of Samoan patients living with diabetes and their family members. The results revealed that personalised diabetes and lifestyle education encompassing social, economic, and cultural characteristics provided an enhanced experience for participants and their *aiga* (Shahab et al., 2019).

This aligns with the findings of the current research, where the ability of PR to deliver topics utilising a mixture of visual handouts, videos, diagrams, and written materials, followed by the opportunity to share, discuss, and engage with other peers, were identified as optimal ways to consolidate learning and empower and enhance SM skills for chronic respiratory diseases.

At the same time, participants in this research also shared experiences of factors that hindered their learning journey and, at times, affected their ability to access or engage in education sessions. These factors included the limited opportunity to engage in discussions with peers and staff, the length of the education sessions being too long, the size of the groups, feeling overwhelmed by content-heavy sessions, and not having *aiga* present. The issue with the group size, length of the session, and content-heavy

nature of the sessions was that they made it difficult to facilitate a crucial cultural component of '*Teu Le Va*' as these factors meant that it was not possible to nurture any relationships with peers and staff members. This mirrors the findings of Levack et al.'s (2016) study, which also highlighted the importance of culturally meaningful connections in PR and its impact on engagement and uptake of the programme.

As discussed by Levack et al. (2016), social connection is a crucial factor influencing the uptake of PR for all ethnicities. However, cultural differences between the term social connection and *whakawhanautanga* (see glossary - it is similar to the '*Teu Le Va*' concept in Pan-Pacific Island cultures) were found. These important cultural differences included meaningful connections to people and the programme's work (Levack et al. 2016). The identity of a Pacific person incorporates culture, values, upbringings, and experiences and is how Pacific people make meaningful connections. Qualitative literature targeted at Pacific populations in Aotearoa NZ has found that when a Pacific person's identity is respected and acknowledged, it is strongly associated with positive well-being (Higgs et al., 2023; Matika et al., 2021). A study investigating a Pacific seniors' weekly wellbeing group and factors that contributed to their continued engagement with the group (Higgs et al., 2023). The findings in the Higgs et al. (2023) study discussed the values of culture, spirituality, and family connections as intertwined with all facets of the *fonofale model* and equally the appreciation that good health and wellbeing are interwoven with respectful and trusting relationships. The uniqueness of findings from this research supports the Pacific notion of '*Teu Le Va*'. Moreover, the findings do not just focus on making a meaningful connection with others but concentrate on the factors that may positively or negatively impact the "space" between one another, which could include the environmental, external, or personal factors. An example of factors or activities that contributed to the space, included participants having limited access to transport to attend classes (a negative impact), and having access to free medical appointments (a positive impact) (Higgs et al., 2023).

Core to the umbrella term of 'Pacific people' is the importance of relationships with others and feeling a sense of belonging, which all participants expressed. Literature in the Pacific health space outlines common barriers to accessing and utilising health services. It is clear that when there is limited or no acknowledgement and

understanding of culture and the interplay of values that underpin culture, there is a direct impact on the engagement with the service due to a perceived lack of trust between provider and PP (Fa'alogo-Lilo & Cartwright, 2021; Harbers et al., 2022; Neville et al., 2022; Tane et al., 2021).

Participants offered some suggestions around practical ways that health professionals could facilitate relationships. These involved speakers using culturally specific examples and analogies. An example would be for the nutrition talk to incorporate culture-specific staples like roti, taro, and green bananas. Participants expressed topics with no culturally identifiable or specific scenarios contributed to disengagement, which was also noted by other studies on access and engagement for Pacific peoples (Ofanoa et al., 2022; Pio & Nosa, 2020). Additionally, Meharg et al.'s (2023) study, which explored the experiences of aboriginal healthcare care workers, codesigning education resources in collaboration with indigenous populations living with COPD. The findings suggested that future sessions could be enhanced by using real-life videos and scenarios of patients who participants can identify with, and look like them (Meharg et al., 2023), which echoed findings in this study, highlighting using learning materials that are meaningful and relatable.

PP identified supportive and trusting relationships with staff as explicit '*Teu Le Va*' attributes. Staff were seen as experts in respiratory health and were valued by PP for their knowledge and time. Research suggests that the health workforce should reflect the population they serve (Counties Manukau District Health Board, 2007). However, health workforce shortages mean that it would be hard to ensure that each health facility has staff representative of each ethnic group. But staff who understand the community have also been shown to be effective (Counties Manukau District Health Board, 2007). The data presented in this study suggested that this does not necessarily hold true. Staff in this study were made up of many ethnicities and PP shared that although they valued seeing staff members who looked like them, it was more important that staff were skilled, knowledgeable, and able to have awareness and understanding of their culture.

This suggests that the goal of PR education sessions should be focused on creating a culturally safe and inviting environment and on developing relationships where

participants can be authentically supported by appropriate, meaningful, and culturally tailored learning materials using a variety of teaching formats to meet the diverse needs of the PL. The process of collaboration and codesign working towards cultural safety can also be done by those from the community and those who understand the community – here it applies to the Pacific community, but it could apply to any community.

6.2.3 Understanding health literacy for Pacific people

The Ministry of Health (2015) defined health literacy as the capacity to find, interpret, process, and understand basic health information and services needed to make informed health decisions. Accordingly, it often put the onus of finding health information on the individual rather than the health provider (Ministry of Health, 2015). Multiple additional factors could contribute to PPs health literacy, including the individual and their *aiga*'s previous educational background, language needs, learning needs and access to technology and appropriate resources (Tafea et al., 2022).

Previous education experience and highest education data were collected via a demographics sheet. The background info was used to ascertain the social and economic data collected was used when analysing the *Talanoa* to ascertain any patterns or themes that may connect social and economic patterns with the themes developed. emerge. Even though literature has shown a link between previous educational background and health literacy, conclusions or links could not be drawn from this study. However, Tafea et al. (2022) undertook an integrative review which looked at the barriers to immunisation for Pasifika people, which suggested that lower levels of educational attainment and income were strong factors in hesitancy and uptake of the immunisation programme. In saying that, there did appear to be a link between the previous experiences of PP in similar education settings to PR education, where participants shared that those previous negative experiences in primary and secondary schooling were also linked to content not being meaningful and relevant to their lives (Tafea et al., 2022).

A major factor that has been found to contribute to health literacy is language barriers and a lack of resources into the numerous Pacific languages (Pio & Nosa, 2020; Tafea et al., 2022). Unfortunately, a limitation of the current study was not capturing the

experiences of PLs with English as an additional language. This Pacific subgroup may absorb, interpret, and understand health education very differently due to the added complexity of translating materials and interpreter input for speakers which can contribute to their experiences of engaging and accessing health education (Pio & Nosa, 2020; Tafea et al., 2022). Additional considerations when looking at Western models of delivering education in a didactic fashion and using English as the main language may not be meeting the needs of all Pacific people (Pio & Nosa, 2020; Tafea et al., 2022). This was discussed by participants in this study where larger groups, the use of medical Jargon in English, and reduced time for connection, interaction, and questions were identified as barriers for PP to engage in PR education sessions. This is consistent with the Pacific health education literature, which continually highlights the links between health literacy and the communication styles of health professionals, language barriers, and the cultural appropriateness of materials used, which correlates to disengagement in health education and services (Fa'alogo-Lilo & Cartwright, 2021; Pio & Nosa, 2020; Tafea et al., 2022).

Although participants in this study spoke English, they shared experiences where language barriers made some education sessions challenging to understand, mainly when certain topics and concepts had a high proportion of medical terminology used. Participants in this study expressed feelings of 'fear' that they would say the wrong thing in front of a large group, which echoes similar feelings in other health literacy research (Pio & Nosa, 2020). For instance, Pio and Nosa (2020) reported that Samoan mothers feel shame for not fully understanding some of the interactions they had with health professionals (Pio & Nosa, 2020). On a positive note, some participants felt education sessions were an opportunity to practice English words and concepts and they thus used it as a learning opportunity. Interestingly, research shows the relationship between wellbeing and bilingualism among Pacific people is relatively positive, and there are similar levels of wellbeing between Pacific people who speak only English and those who are bilingual (Matika et al., 2021). Despite not including participants with English as an additional language in this research, the findings may translate to this subgroup of PP (Barnard, 2007; Matika et al. 2021). Nevertheless, the issue of language and its impact on Pacific people requires further research. In any instant, the learning needs for Pacific people and the Pacific way of learning mean that

the approach in which health professionals provide health education should be guided by the Pacific values of *Teu Le Va*, Connection, the collective and reciprocity (Higgs et al., 2023).

Using technology as a way for PP to follow up on what was learnt in sessions was reported as a tool for supplementing existing knowledge in the data. Among the participants, this was mostly done in consultation and collaboratively with younger *aiga* members, as PP felt online forums were difficult to navigate and often had a lot of content that was hard to process and, at times, overwhelming. Technology and access to online education resources appear to be an avenue that PP are interested in engaging with; however, they face several barriers in terms of access and engagement. The ever-changing nature of the digital world was forced upon many during the COVID-19 pandemic, with many PR services needing to adapt the delivery of their programmes to telerehabilitation (Candy et al., 2023). In addition, Pacific people with poorer health literacy face additional barriers regarding digital exclusion (not being able to use the internet to participate in modern day society) such as poorer access to cheap internet and software. Those with both poorer health literacy and digital exclusion may potentially lead to serious problems such as poorer understanding of how the internet and digital technology function, being unable to filter content that is relevant and trustworthy, and reduced capacity to navigate technology for their health education (The Digital Government, 2021; Candy et al., 2023).

Candy et al. (2023) collated literature highlighting barriers to having a device and access to the internet. Two studies explored predictors of access to a device for the use of telerehabilitation, with both suggesting that smartphone access and digital competence were directly related to having education experience beyond secondary school (Alwashmi et al., 2020; Candy et al., 2023; Seidman et al., 2017). Considering that Pacific people on average have poorer SDH, lower education statistics, and language barriers, making it less likely that they would have access to a smart phone (Candy et al., 2023). Further considerations around how technology could be utilised to benefit PP should be further explored in collaboration with Pacific people to truly understand and discuss the effects this may have on crucial Pacific concepts such as *Teu Le Va* and connection.

6.2.4 Experiences of the education topics

Participants discussed positive and negative experiences in the course, which highlighted important educational topics and, conversely, topics that were not fit for purpose for Pacific people. The fundamental concept for all positive experiences was that topics were meaningful and relevant for participants' current health status and their *aiga* (Neville et al. 2022). This means that education should be not only patient-centred but *aiga*-centred. Patient-centred care (PCC) is a well-known concept that describes placing the patients' goals, values, needs and preferences at the forefront of health interactions to have a positive outcome and improve overall health (Pluut, 2016). In providing PCC, it is assumed that health professionals know how to approach PCC. However, this is not always the case within the health sector. A subtle shift within the Aotearoa NZ health system occurred towards the term 'holistic' care, which aims to delve deeper and to consider not just the individual's physical ailments but also their mental, spiritual, environmental, cultural, and *aiga* wellbeing, which is demonstrated in the *fonofale model*, mentioned in section 3.3.1 (Jackson et al., 2023; Pulotu-Endemann, 2001).

The *fonofale model* approach to health is not a new concept within Pacific people but it captures the way that Pacific people have viewed their health for generations (Pulotu-Endemann, 2001). Building on the *fonofale model* is the framework of "*Fanau ola*", which describes *"fanau"*, representing families and *aiga*, and "*ola"*, which is often used to express life, being healthy, refreshed, and successful (Counties Manukau Health, N.d.). This framework further supports the notion that if the whole *aiga* is thriving and supported across primary health, secondary health, community, and tertiary sectors to work towards better health, stronger relationships with providers, and are empowered to pursue goals and future aspirations, this has positive implications on not only government systems including reduced length of stay in hospitals and a reduction in emergency department presentations, but it improves Pacific people's engagement with providers (Counties Manukau Health, N.d.).

PP reported concerns when *aiga* misinterpreted symptoms related to their respiratory health and often wished their *aiga* could participate in education to understand the impact of chronic respiratory health on their participation in everyday life and activities. With the *fonofale model*, the foundation of the *fale* is the *aiga* and the

collective wellbeing of the *aiga*. When *aiga* are not fully informed about a PP's health, or PP feel unable to adequately explain their health status, this directly affects the whole *aiga*'s wellbeing, including the PP. Therefore, education topics should consider a move towards *fanau ola*, providing examples and scenarios that incorporate the perspective of the *aiga* and strategies for *aiga* to support PP in SM strategies. This role of collective *aiga* wellbeing or *fanau ola* was suggested as one of the core successes in a Pacific and Māori diabetes education programme that respected the role of *aiga* in unconditionally supporting elderly Pacific *aiga* and enhancing the participant's support systems, allowing PP to navigate challenging conversations and lifestyle changes as a collective (Tane et al., 2021).

Nine topics identified by PP were found to have purpose and meaning for PP and their *aiga*. These topics were related to various health and wellbeing areas and addressed multiple aspects of the fonofale approach to health. These included topics such as the benefits of exercise, diet and nutrition, mental health, and positive coping, just to name a few. These highlight the *pou* of the *fale* utilising physical and psychological wellbeing aspects. Evidence approaching health and wellbeing for Pacific people with the *fonofale model* supports its use as an appropriate lens and framework for meeting the holistic needs of Pacific people (Higgs et al., 2023).

In addition, PPs suggested four additional topics incorporating SDH aspects not included in the current education schedule These suggestions this included tips for managing a healthy home to prevent respiratory exacerbations, financial benefits, or funding available from the Ministry of Social Development to provide for their *aiga* to pay their bills and consequently attend PR education sessions. Connections to Pacific health providers and health navigators to access additional not for profit services such as age concern and support with understanding how the health system works in Aotearoa NZ.

Knowing that Pacific people are disproportionately affected by health statistics in Aotearoa NZ, it is not surprising that Pacific people want support in all areas of SDH to be able to fully commit to self-managing their respiratory health. The change towards more topics that focus on SDH differs from previous research, which looked at the educational content and delivery of education in PR (Roberts et al., 2021). Roberts et

al. (2021) investigated how PR education is delivered in practice. The results echoed this study which highlighted the need for education to be patient centred, to incorporate literacy needs and to be delivered with multiple different learning approaches such as interactive and experience-based sessions (Roberts et al., 2021). A significant limitation of the Roberts et al. (2021) study was that they could not capture patients' views of what should be included, which is a strength of this study (Roberts et al., 2021). PP in this study offered insightful suggestions for new topics which supports the solutions-based approach 'by Pacific, for Pacific'.

Meaningful and relevant topics to PPs in this study were holistic and drew on concepts emulated in the Pacific fonofale health model and did not necessarily directly relate to their specific health condition or their individual health needs but were concentrated around holistic wellbeing and SDH topics including nutrition, positive coping, St johns' alarms, work and income benefits available, basic healthy housing tips, age concern, and health navigators.

6.2.5 Limitations

In qualitative research, rigour is a concept used to ascertain if qualitative research is trustworthy and robust, as discussed in section 3.4.9. This section discusses the limitations and strengths that contributed to rigour during the research process of this study.

As mentioned in section 6.2.1, one third of Pacific people are new migrants and some have challenges communicating in English. Often, these voices are left out of the research process, preferring one voice over the other. The decision to focus on English-speaking PP was made in part due to the restrictions on time to complete the thesis within the time limit provided by the university and the complexity of translating all materials into the numerous Pacific Island languages, in addition to having only no resources available to provide interpreters. Nevertheless, not including this subgroup of PP is a form of sample selection bias, whereby a particular subset of participants is excluded systematically due to a specific attribute, in this case it affected non-English speaking Pacific attendees of the PR education course (Maher et al., 2018). This will inherently affect the rigour of the data collected, and caution is therefore required when applying recommendations in clinical practice.

As mentioned in section 3.4.9, credibility is one of the aspects in qualitative research that contributes to the trustworthiness of the research. Focusing on this study's credibility, a further limitation of this research was that participants did not provide feedback on the proposed themes identified. An email was sent to PP who had indicated on their PIS that they were happy to receive a draft summary of the themes for respondent checking. However, no response was received from the participants after the draft was sent. Therefore, only the co-researcher's feedback was used to guide the analysis and development of the themes. This may reduce the believability of data interpretation, reducing rigour.

Moreover, the ability to translate findings to other localities, regions, or countries is reduced as it captures the experiences of a particular PR region only which has a unique and diverse community, so it may differ if compared to other centres around Aotearoa NZ or internationally. Unfortunately, despite using purposeful sampling to gain a wide variety of participants, there are many more Pacific cultures in addition to the cultures represented in this research, each with different historical backgrounds and relationships to Aotearoa NZ. This limits the ability for findings to be truly transferable to all Pacific cultures; however, in contrast, the cultures represented in this research include two (Samoan and Tongan) of the main cultures, which comprise a substantial proportion of CMH. Therefore, the cultural concepts and practices discussed within this thesis can be translated to other areas of chronic health education.

As part of the process of *talanoa* research, there was dedicated time before interviews for eating, sharing, and an informal discussion before getting into the session, which could be seen as a limitation by Western standards as it was more time-consuming and often involved the researcher sharing personal information about themselves, involving them as part of the research. Nevertheless, in this study it was observed as a strength as it allowed the researcher to engage meaningfully and was guided by what the participant wanted to discuss and share. This further increases the dependability (explained in section 3.4.9) of the collected data, highlighting the need for researchers to be consistent with Pacific approaches throughout the research process.

A possible limitation of this study may also be the small sample size. However, in qualitative research, the quality and richness of the data collected rather than the quantity often contribute to broader knowledge (Malterud et al., 2016). Therefore, the concept of information power was utilised, which focused on several aspects of the qualitative process that increased information power and ensured that the data collected was adequate to answer the research question and, therefore, did not require a set number of participants (Malterud et al., 2016).

6.2.6 Recommendations

This current research provides insights into the journey of the PL and the barriers and facilitators that contribute to their SM, engagement, and access to education in PR. The approach to this research aimed to include Pacific paradigms, concepts, and values, not only with PP in person but in every step of the research process, safeguarding the study's findings, to reflect the true essence and words of the participants involved. The following recommendations are extraordinary gifts of knowledge from the PP in the study and will provide some much-needed insights for health professionals working in PR.

Macrosystem: Policies and regulatory bodies

- Government departments such as the Ministry of Pacific peoples, should be taking leadership and oversight over all departments which control and provide support for Pacific people, such as the Ministry of Social Development, Ministry of Housing and Urban Development, Ministry of Health, and the Ministry of Education, with the aim to co-design policies with Pacific community users and their *aiga*.
- Regulatory bodies such as the Asthma and Respiratory Foundation Aotearoa NZ should consider including Pacific respiratory clinicians and/or Pacific community members as part of the guideline development process to provide a Pacific paradigm perspective on the management of chronic respiratory conditions.

Mesosystem: Strategic, service development, and providers

- A multi-sectoral approach to health and wellbeing for Pacific people is needed to address the inequities that Pacific people face genuinely. This requires collaboration between the Ministry for Pacific Peoples, the Ministry of Health

and the Ministry of Education and Housing to work collaboratively on public health policies for Pacific people.

- Health services provide appropriate and annual professional development opportunities for health professionals working in health education to upskill their awareness and responsiveness to Pacific paradigms, Pacific health models, and practical strategies to enhance and review health education programmes.
- Creating further funding avenues for education programmes to reduce time and resource demands on health professionals.
- Health professionals should be able to access funding to create diverse and appropriate learning materials that utilise many visual formats targeted at Pacific cultures. These should include pictures and diagrams that PP can relate to.

Microsystem: Health professionals and clinicians in PR

- Appropriate mechanisms should be developed for PR services to seek regular input from Pacific people to review content, structure, and learning materials to ensure that PR education is relevant and appropriate to the community's needs.
- Health professionals should independently and proactively seek knowledge and understanding of cultural diversities and historical backgrounds to upskill their cultural knowledge and be fully informed and aware of these concepts to fine-tune their ability to engage in health education sessions.
- The content of PR education needs to be meaningful and relevant for Pacific people and their *aiga* for them to fully engage in education, and therefore, an *aiga*-centred approach to education should be adopted. This could be achieved by formally inviting participants to bring *aiga* to appointments and classes, or by calling clinicians calling participants or sending them a letter inviting *aiga*. Moreover, health professionals should provide examples which are geared to both those who have chronic health conditions and those´ who live with those who have chronic health conditions and creating handouts for not only PP but for *aiga* on how to support a loved one living with respiratory illness.
- Education topics should be holistic and address multiple SDH factors, this includes providing specific topics on healthy homes, financial support available and work and income benefits, and age-related supports such as age concern.

- The ability of health professionals to make education sessions welcoming and culturally safe by taking time for *Teu Le Va* and peer-supported learning is key to PP fully immersing themselves in education sessions authentically.

Overall, utilising the *fonofale model* and *fanau ola* framework when approaching these changes is key to providing a culturally responsive PR programme.

6.2.7 Future research

Further research could explore the experiences of Pacific people who are recent migrants and do not speak or understand English and include other Pacific ethnicities to increase the sample size. This would strengthen the findings of this study and contribute to the wider knowledge around delivering culturally appropriate and responsive PR programmes in Aotearoa NZ.

In addition, co-designing education sessions with Pacific communities, including *aiga* in education sessions, and creating holistic *aiga*-centred education topics that address SDH affecting Pacific peoples would be crucial to ensure that all aspects of a Pacific person and their *aiga* are addressed. Consequently, empowering PP with knowledge and skills to manage their symptoms and prevent further deterioration and progression of their chronic respiratory conditions.

6.2.8 Implications for practice

Pacific people make up a sizeable proportion of CMH and have significant cultural differences in the way that they view health and the way they learn. There is a need for PR to modify education content and delivery to suit the community and in collaboration with those communities. Thus, the need to first understand PP's current experiences of attending the PR education sessions was needed to identify barriers, facilitators, and suggestions using PP’s own words.

Furthermore, it seems crucial that multi-sectoral organisations such as the Ministry of Social Development and the Ministry of Housing and Urban Development as well as other Pacific health providers are involved to ensure meaningful and relevant topics are included on the schedule and content is adapted appropriately. In addressing respiratory health education in PR holistically and within a Pacific paradigm, PR services will likely see more engagement, access, and better SM of their respiratory

conditions, which may have further benefits such as a reduction in hospital admissions and an improved quality of life for Pacific people.

Pacific health models and frameworks, such as the *fonofale model* and *fanau ola*, should be used in all planning and development stages of co-design, and a clear understanding of the concepts of *Teu Le Va* and *Talanoa* should be continually applied in all settings. This can be done by increasing the time for education sessions to allow time for *Talanoa* and *Teu Le Va*, and by involving *aiga* as well as by providing *meaai* and time for fellowship and peer-supported learning.

In addition, a review of current education material, resources, and delivery structures would help identify areas for improvement and adaptation that are culturally responsive and meet PP's needs of basic health literacy levels. This would require dedication and appropriate funding in addition to resources from within the health sector to ensure appropriate translations; if done correctly, this would positively impact the public health system.

6.2.9 Conclusion

Education remains a valuable tool for SM of chronic respiratory diseases in PR programmes nationally and internationally (Candy et al., 2020; Roberts et al., 2018). However, education is commonly delivered from a very Western approach, whereby speakers teach at the attendees, and PP often listen passively, making it difficult to know if PP are able to absorb and understand the materials provided. With the prevalence and burden of chronic respiratory diseases continuing to affect Pacific people disproportionately, there is a significant need to shift our thinking within the health system and work collaboratively with Pacific people to provide culturally responsive PR programmes. This study identified five main themes including the exploration around the PP journey and experiences of the education topics that identified four new topics that should be explored further and added to the PR education schedule. These included: financial support, health navigators, health homes education, and elderly advocate support through age concern. The importance of incorporating *Teu Le Va* with peers and staff within PR was highlighted as key facilitators to participation and engagement in education. In addition, an in-depth look into the multiple roles that a PP has within their *aiga* unit and, the struggle that comes

with juggling these *fa'alavelave's* (responsibilities) and the impact on attendance to education sessions was explored. The concept of the PL and factors that facilitate or hinder their learning experiences, in addition to the role of health literacy and the impacts this has on participation and engagement in PR education were further themes that emerged from the data. Understanding that PP are adult learners who have diverse learning styles and prefer learning with visual representations and through peer supported learning, are key cultural differences that need to be born in mind when wanting to effectively support PP in the SM of their condition. Moreover, PR education sessions in CMH have been using topics identified by national and international respiratory societies but with little feedback from Pacific communities around whether these topics are meaningful and relevant for them and their *aiga*'s holistic wellbeing (Lung Foundation NZ, 2023). Creating inclusive learning environments that are inviting and safe for Pacific people to engage in vulnerable and meaningful discussions about their lung health is crucial to building relationships with peers and staff. In addition, feeling a sense of belonging regarding their cultural identities and holistic Pacific worldviews should be valued and encouraged.

This current research provided examples of considerations in the existing structure and delivery of PR education, such as the size of the groups, the session length, and whether *aiga* were included, which affected the ability of participants to engage in '*Teu Le Va*' with staff and peers. Conversely, practical tips such as health professionals having a more comprehensive understanding of Pacific cultures and values, incorporating these values into their interactions with participants, and using additional learning materials were just some simple but effective ways to be responsive practitioners.

The presented evidence around Pacific learning and the importance of holistic education in PR was key takeaway message from this research, where utilising the *fonofale model* as a basis for interactions, structure of the programme, and content was found to be an important guide for health professionals when being able to provide a culturally responsive programme. More importantly, this research has offered practical suggestions for how health professionals can approach education in a more culturally responsive way, with a big emphasis on including *aiga* in all aspects of the journey through PR. This research is a basis for future researchers and clinicians to

explore alternative ways of delivering and adapting education so that Pacific people can be empowered to self-manage their chronic respiratory diseases through preventing deterioration and reducing symptoms, thus improving their quality of life and participation in meaningful activities with *aiga* and the collective communities that they live in.

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Glossary

Aiga	Family
Teu Le Va	Pacific concept of nurturing of relationships
Talanoa	Pacific way of communicating and connecting.
Lotu	Prayer
Meaai	Food
Tautua	Service
Fa'aaloalo	Respect
Whakawhanautanga	Māori concept of connection
Falealuga	The Roof
Fa'avae	The foundation
Pou	Beams
Fonofale	Pacific model of viewing health for Pacific people

Inu	Drink
Lotu/Tatalo	Prayer
Fanau ola	Concept of family wellbeing

Appendices

Appendix A *Ethics Approval*

Auckland University of Technology Ethics Committee (AUTEC)

Auckland University of Technology
D-88, Private Bag 92006, Auckland 1142, NZ
T: +64 9 921 9999 ext. 8316
E: ethics@aut.ac.nz
www.aut.ac.nz/researchethics

7 March 2022

Jalal Mohammed
Faculty of Health and Environmental Sciences

Dear Jalal

Re Ethics Application: **21/442 Using talanoa to explore Pacific participants experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health (CMH)**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 7 March 2025.

Standard Conditions of Approval

1. The research is to be undertaken in accordance with the Auckland University of Technology Code of Conduct for Research and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.
8. AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any enquiries please contact ethics@aut.ac.nz. The forms mentioned above are available online through http://www.aut.ac.nz/research/researchethics

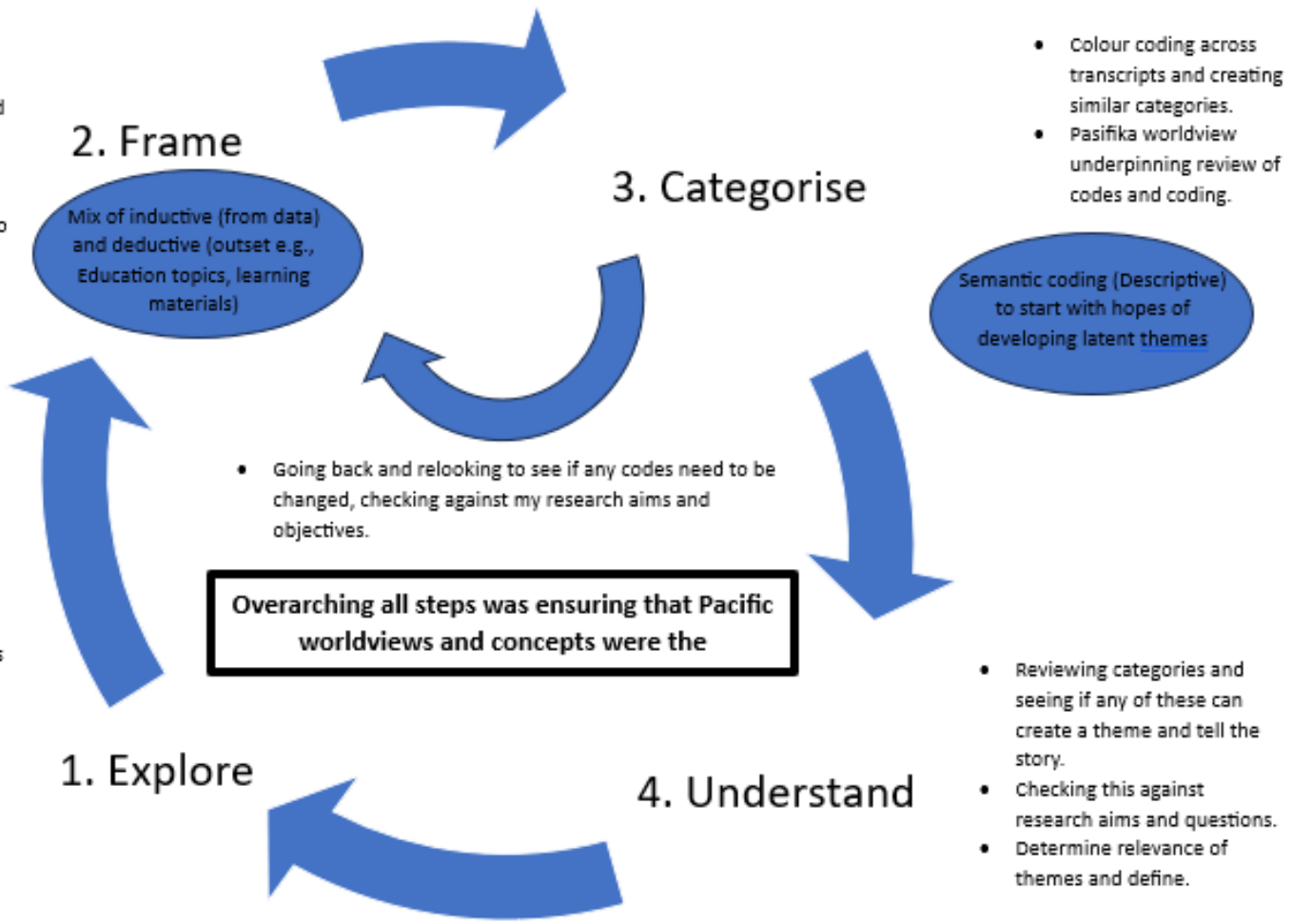
(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat
Auckland University of Technology Ethics Committee

Cc: Jorjia.Stewart@middlemore.co.nz; Jorjiastewart@hotmail.com; sione.vaka@aut.ac.nz

Appendix B *Analysis strategy*

Analysis strategy



Appendix C *Tools*

a) Interviews prompts

Interview prompts:

Locality: e.g., Manurewa/Mangere

1. When did you start in PR?
2. How many education sessions have you attended so far?
3. Can you tell me what your thoughts were around what "Education sessions" meant to you when you first started?
   -What were your expectations?
   -What did you think the topics were going to be on?
   -Did they meet your expectations?
   -What topics have you founds useful in managing you lung condition?
   -What was the most interesting topic? And why?
   -Do you attend all education sessions, if not why do you miss some? Which topics do you think are more valuable?
   -Are their missing topics you think should be included? E.g., social worker? Benefits? WINZ support, oxygen? Culturally specific ones?

4. Have you attended other health education programmes before?
   - If yes, what were they? how were they run? What was difference between them and PR?
   - If not why did you not attend? what were some barriers to attending?
5. From a pacific view, what is your experience or thoughts around the structure of the programme e.g., Time frames, modality e.g., Power point, group, handouts
   -Do you feel comfortable to share or ask questions, if yes what made you feel comfortable? If no, what do you think could have facilitated you to feel comfortable to ask?
   - Are the topics appropriate for your needs as a pacific person? What are your needs? What did you want to get out the session?
   -How do you learn best? what would be more beneficial to you in terms of education structures e.g. One on one, group, handouts, pictures, visuals, videos, interactions, practical?
   -Are cultural needs important to you such as lotu, teu le va with the group, social connections and sharing?
   - How might that look for you? E.g., everyone starts on the same day, ice breakers? Cup of tea and catch up at the end?

6. Family/Social support
   -Did you have family there to support if yes, did this make a difference in how you interacted in the education session? If not, why, did this make a difference to how you interacted?
   -Do you think having family there to also understand how you manage your health, would have helped you to feel more comfortable to self-manage?
   -Were you encouraged to bring family/friend support? Would you have wanted this or not?

b) Participant Information Sheet

Participant information sheet

Date information sheet produced:

31st August 2021

Project title:

Are we providing education to Pacific participants in pulmonary rehabilitation in the right way?

Using talanoa to explore Pacific participants experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health (CMH)

An invitation:

Teena koe, Malo Soifua, Malo e Lelei, Kia Orana and warm pacific greetings

My name is Jorjia Stewart-Tuiletufuga, I am a qualified physiotherapist and am conducting this research as part of completing a master's in public health thesis through AUT University.

This research project aims to listen to your experiences and stories of attending Pulmonary rehabilitation education sessions. Whether you choose to participate or not will neither advantage nor disadvantage you. Having you participate in this study would be greatly appreciated.

What is the purpose of this research?

We know that the physical exercise component of pulmonary rehabilitation is widely supported as GOLD standard in reducing symptoms related to your lung condition including improving low mood, reducing breathlessness and being able to participate in activities of daily living.

Within NZ and specifically at Counties Manukau health there is a diverse population with a high proportion of counties being the home of Pacific communities and with this comes other complexities such as language, health literacy and cultural values which may affect participation in these activities.

There is a lot of literature around the exercise component and minimal around the education component and the literature that is available does not take into consideration the above aspects when looking at how education is provided and run.

Therefore, our research aims to listen to Pacific participants experiences and understand how they have found education sessions to help inform a more culturally responsive education structure in pulmonary rehabilitation.

The findings of this research may be used for academic publications and presentations.

How was I identified and why am I being invited to participate?

You have been identified because you have or are currently attending pulmonary rehabilitation in Mangere or Manurewa localities, identify with Pacific or wore born in a pacific island, have attended at least half of the education sessions run at pulmonary rehabilitation and have been diagnosed formally with a lung condition.

How do I take part in the research?

I would appreciate if you would take part in this research. You would have been approached with a poster and your details taken down and if you would like to participate then you would have contacted me, or I would have approached you to provide you with this sheet and a consent form.

I plan to undertake 5-7 talanoa interviews to gain a deeper understanding and unique perspective that you as a Pasifika person brings to the table.

Interviews will be run either onsite at the Moana Nui a Kiwa leisure centre or Manurewa netball centre in a private room or via zoom if you so choose. If you choose zoom, a sign will appear on your screen asking for your permission and consent to record, your consent form will be read to you over zoom and kept as a recording.

Your participation would be very valuable and will be able to contribute to the running of the program.

Your participation in this research is voluntary (it is your choice) and whether or not you choose to participate will neither advantage nor disadvantage you. You are able to withdraw from the study at any time. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used. However, once the findings have been produced, removal of your data may not be possible.

If you agree, please fill in the consent form and demographic sheet provided within 2 weeks of receiving the poster summary.

This can be physically given to me or the respiratory nurse or physiotherapist or emailed to me at Jorjia.Stewart@middlemore.co.nz and if you have any questions, please don't hesitate to contact me on 0223194355.

What will happen in this research?

I will be completing interviews with Pacific participants. These will take approximately 1-2 hours and will draw on Pacifica values that underpin talanoa, such as reciprocity, respect, love and service. Interviews will be recorded either via voice or via Zoom.

Your information will be kept confidential on a password protected USB and be deleted at the completion of the research. I will have semi structured questions however the interview will be guided by what you find important to share on this topic.

Interviews can be held at the community site in Manurewa or Mangere where better breathing runs in a private room or location onsite or via zoom if you choose.

When you arrive, there will be an opportunity for us to share and nurture our relationship through shared connections to build Teu Le Va and we can have a lotu if you so wish. Light refreshment will be provided.

What are the benefits?

This research may be beneficial to other Pacific participants who attend pulmonary rehabilitation as with the information you provide this may contribute to changes that are made in education provided. It will also benefit health professionals in Pulmonary rehabilitation spaces and will over all be able to contribute to the wider pacific health research and data to improve pacific health and wellbeing. Finally, this research will contribute to my Master of public health qualification.

How will these discomforts get alleviated?

If you do feel any form of discomfort whilst participating in this research, you do not have to answer all the questions, only answer what you feel comfortable to answer. You may take a break at any time during the talanoa.

How will my privacy be protected?

Privacy will be protected through:

- Interviews being provided in a private, quiet, room where no other participants or staff will be able to hear.
- Information will be always stored in a secure manner on a password protected USB and kept on the AUT campus in a locked room and deleted at the completion of the study.
- Participants names will be de-identified to keep information confidential through the process of transcript writing and analysis and final write up.
- Consent forms will be secured with the use of encrypted USB and/or secure online cloud storage/paper copies will be kept in a locked cabinet on site at AUT south campus.
- No personal data will be collected from participants other than basic demographics such as age, gender, ethnicity, educational history, preferred language, employment/occupation.
- Care will be taken to ensure any identifying information is removed for reporting purposes.
- Data will be kept for ten years and then destroyed, the usb will also be destroyed at this point.

What are the costs of participating in this research?

Aside from giving up your time, there are no costs associated with taking part in this research. The time involved will consist of 20 minutes to read this information sheet and complete the consent form and demographic sheet, and the 1–2-hour interview.

What opportunity do I have to accept the invitation to participate?

Participants are encouraged to contact me within 2 weeks of receiving this information.

Will I receive feedback about this research?

A summary of findings may be sent to participants via email if they wish. You can indicate whether you would like to receive this on the consent form.

What do I do if I have concerns about participating in this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference.

You are also able to contact the research team.

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor,

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, *ethics@aut.ac.nz*, (+649) 921 9999 ext 6038.

Whom do I contact for further details about this project?

PROJECT SUPERVISOR CONTACT DETAILS:

Jalal Mohammed Jalal.Mohammed@aut.ac.nz

LECTURER AT AUT

Sione Vaka: Sione.vaka@aut.ac.nz

LECTURER AT AUT

LEAD RESEARCHER

Jorjia Stewart-Tuiletufuga (Registered Physiotherapist)

jorjia.stewart@middlemore.co.nz

022319435

Provide the name and all relevant contact details. Note that for personal safety reasons, AUTEC does not allow researchers to provide home addresses or phone numbers.

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTEC Reference number *type the reference number*.

c) Consent forms

Face to face consent form

CONSENT FORM

Using talanoa to explore Pacific participants experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health (CMH).

Project Supervisors: Jalal Mohammed & Sione Vaka

Researcher: Jorjia Stewart-Tuiletufuga (Lelumoenga & Vailima)

- ○ I have read and understood the information provided about this project in the Participant Information Sheet
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that my identity will be confidential
- ○ I understand that notes will be taken during the interview and that it will also be audio-taped or videoed and transcribed.
- ○ I understand that taking part in this study is voluntary (my choice) and that I may withdraw from the study at any time without being disadvantaged in any way.
- ○ I understand that I can invite my Aiga or family to participate with me if I choose too
- ○ **I agree to take part in this research**
- ○ **I agree to validate interview transcripts** Yes○ No○
- ○ I wish to receive a summary of the research findings (please tick one): Yes○ No○

Participant's signature: **Date:**

Participant's name:

Participant's contact details:

Address:

Email: **Phone:**

Approved by the Auckland University of Technology Ethics Committee on type the date on which the final approval was granted AUTEC Reference number type the AUTEC reference number

Note: The Participant should retain a copy of this form.

Oral consent form

Oral Consent Protocol

For use when interviews are being conducted by videoconference.

Project title: Using talanoa to explore Pacific participants experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health (CMH).

Project Supervisor: ***Jalal mohammed and Sione Vaka***

Researcher: ***Jorjia Stewart-Tuiletufuga***

The participant joins the videoconference

- ○ Do you agree to my recording your consent to participate?

If they agree, then the record function will be activated and they will be asked the following:

- ○ Have you read and understood the information provided about this research project in the Information Sheet dated 31 August 2021?
- ○ Do you have any questions about the research?
- ○ Do you understand that notes will be taken during the interviews and that the interview will also be audio-recorded and transcribed?
- ○ Do you understand that taking part in this study is voluntary (your choice) and that you may withdraw from the study at any time without being disadvantaged in any way.?
- ○ Do you understand that if you withdraw from the study then you will be offered the choice between having any data that is identifiable as belonging to you removed or allowing it to continue to be used? However, once the findings have been produced, removal of your data may not be possible.
- ○ Do you agree to take part in this research?
- ○ Do you wish to receive a summary of the research findings? (please tick one): Yes○ No○
- ○ Do you want me to send you a copy of the audio recording for this consent? Yes○ No○
- ○ Please confirm your name and contact details

Participant's name: .....

Participant's Contact Details (if appropriate):

.....

.....

.....

.....

I will now turn off the recording of the Consent and then will start a separate recording for the interview.

Approved by the Auckland University of Technology Ethics Committee on type the date on which the final approval was granted AUTEC Reference number type the AUTEC reference number

Note: The Participant should retain a copy of this form

d) Demographic sheet

Demographic Sheet

Using talanoa to explore Pacific participants experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health (CMH).

Participant Details

1. **Name:**
2. **Age:**
3. **Which best describes your gender?**

   O Female O Male

   O Prefer not to say O Prefer to self-describe _____

4. **Which ethnic group or groups do you identify with (choose as many as apply):**

   Mark the space or spaces that apply to you.

   O Paakeha/NZ European

   O Maaori - *Iwi Affiliations*: _____

   O Samoan

   O Kuki Airani

   O Tonga

   O Niue

   O Tokelau

   O Chinese

   O Indian

   O Further (please specify) _____

5. **Preferred language:** _____
6. **Specific Job Title:** _____
7. **Highest Level of Qualification:** _____
8. **Years since Qualification:** _____
9. **Location of pulmonary rehabilitation:** _____

e) Participant poster

Using talanoa to explore Pacific participants pulmonary rehabilitation (PR) in Counties Manukau Health (CMH)

Purpose: To explore through talanoa the barriers and enablers to participating in and accessing education in pulmonary rehabilitation (PR).

Participation: Participants who self identify as "Pacific", have attended atleast 50% or half of the PR education sessions, has a formal diagnosis of a lung condition.

Expectation: To participate in a talanoa interview which may take between 1-2 hours which can be either face to face or via zoom. If face to face, lite refreshments will be provided and shared prior an during the interview. A Meaalofa/Koha will be provided of either a petrol voucher or coutndown supermarket voucher worth 25$.

If you are interested please let the physiotherapist or nurse at your better breathing programme know or alternatively you can contact the lead reasearcher on the email below.

Lead reasearcher: Jorjia Stewart-Tuiletufuga, Jorjia.stewart@middlemore.co.nz

Lead reasearcher is a physiotherapist who is interested in understanding Pacific peoples experiences in health care, I am Samoan and european and would love to hear about your experiences of educaiton in PR.

f) Letters of support:

Maaori consultation

Maaori consultation feedback for project:

Using talanoa to explore participants experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health.

Following completion of this proposal Maaori consultation from Caitlin Balkin a Maaori Physiotherapist from CMDHB and the following comments have been made. My role is to provide consult from a Te Ao Maaori perspective and ensure the research upholds the mana if Te Tiriti o Waitangi for equitable approach to health.

Throughout the proposal it outlined how this study will be culturally appropriate to Pasifika participants and their whaanau members and what cultural practices will be included in the process of the data collection. There is demonstration of how this research will uphold the principles of Te Tiriti o Waitangi and aiming to achieve more equitable outcomes for these communities.
The proposal also clearly identifies that both Maaori and Pasifika people are disproportionately however the primary focus of this research is centred around Pasifika.

In terms of dialect and te reo use remember the use of macrons on Maaori or double vowel use for Counties being Tainui dialect.

Ngaa Mihi,

Caitlin Balkin
Physiotherapist

Appendix D *Locality approval*

Research & Evaluation Office
Level 1, Ko Awatea, Middlemore Hospital
100 Hospital Road, Otahuhu; Private Bag 93311, Auckland – 1640
cmdhb.org.nz – koawatea.co.nz

4 April 2022

For the attention of: Jalal Mohammed and Jorjia Stewart

Thank you for the information you have supplied to the CM Health Research Office regarding the following research proposal:

CM Health Research Registration Number: 1573

Ethics Approval Reference Number: AUTEC: 21/442

Research Project Title: "Using talanoa to explore Pacific participants' experiences of education sessions provided in pulmonary rehabilitation (PR) in Counties Manukau Health (CMH)"

I am pleased to inform you that the CM Health Research Office has received all the required service lead approvals and the Chief Medical Officer's final sign-off for the above research project, which has Jalal Mohammed named as the Principal Investigator and Jorjia Stewart as the CM Health Facilitator.

This CM Health locality approval will remain valid until the expiry date specified on the AUTEC ethics approval letter on your study file.

All external reporting requirements must be adhered to. Please note that failure to notify us of amendments, and/or submit copies of annual Progress Reports and annual Ethics renewal letters may result in the withdrawal of ethical and CM Health organisational approval.

FINAL REPORT: It is a requirement of the CM Health Research Policy that all research and audit projects conducted within CM Health should complete a Final Report within three months following completion of the study. The Final Report questionnaire can be found in your study file in the online Registry, under the Documents tab. This report will be viewable by all staff with access to the CM Health network. **Please Note** that having an overdue Final Report will impact your application for locality approval of any new studies.

Yours sincerely

Angela Bennett
Locality Coordinator
Counties Manukau Health
Under delegated authority from CM Health Research Committee and the Chief Medical Officer