Digital Talanoa:

Exploring 360º video as a digital tool

to enable Pacific's youth mental wellbeing

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Abstract

Mental health has become a major issue globally and in New Zealand, more specifically Pacific youth[1]. Much of the existing promotional material on mental health has been focused on print such as pamphlets, flyers, or video via DVDs there has been limited research on the use of interactive media, or in area such as 360° video, *360 media* more commonly named, which is emerging in this field. This study seeks to understand 360 media as a new form of communication for health messages. In this investigation 360 media is employed to creatively visualise new ways of communicating relevant and pertinent information. Three distinct fields of research were identified in this study: culture, health, and communication. A qualitative approach of the research supported the exploration the potential of 360 media, its design, as the intersecting points of the established territories.

Using a collaborative approach[2], this research project carries out *talanoa* with two community health support workers and five Pacific youth to identity some of the themes and key messages that they determined to be central to awareness raising of mental health for Pacific youth. Also, through a process of co-design and *talanoa,* findings are being 'translated' into a 360 media by the researcher and then 'tested' for appropriateness with both groups and adapted accordingly. The creation of the proposed 360 media brings together the health sector, youth and the researcher in a collaborative and co-creative process to generate a thoughtful and relevant outcome for all. The use of a co-creative approach aligned with Pacific knowledge of sharing and research frameworks provides the space and time for meaning making in a culturally inclusive way. In doing so, the study brings a new contribution to the limited literature about 360 media.

In summary the aim of this research is to investigate and to understand how 360 media can be used as an effective tool in communicating key mental health messages designed to engage and empower Pacific youth in New Zealand.

[1] Please refer to: https://goo.gl/y4W6QY

[2] Steen, M., Manschot, M., & De Koning, N. (2011). Benefits of co-design in service design projects.*International Journal of Design, 5*(2), 53-60.

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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 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.

Signed  Date: 10 December 2017.

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Introduction

The Researcher

I am part Tongan, Samoan, Fijian with other ethnicities. I consider myself to be a young urban Pacific male born and raised in central East Auckland, New Zealand. I come from a large family that has instilled in me the importance of being proud of our cultural heritage and to know where I come from. The study I am presenting is my way of sharing the fruits of my education grounded in creative technologies that is used to connect people in digital spaces and through face to face interactions which reflect our modern world today. I draw on Western and Pacific frameworks to investigate the value of digital *talanoa* in a particular space and time that has the potential to stretch our minds and to inspire (re)imagination of new possibilities.

Purpose of the Study

Of growing concern is the current state of youth mental health in New Zealand. For example, as a developed nation we have the highest rate of teen suicide in the developed world (Brazier, 2017) where mental disorders are the third-leading cause of health issues amongst youth. However, the disparities for Pacific youth in this country show their wellbeing is far worse off in comparison to other ethnic groups. Hence the purpose of this study is to create a project that is socially and culturally responsive by using a Pacific lens and a co-creative approach to mental health promotion. I argue that it is important to consider emerging digital tools that can contribute to an effective marketing campaign when endorsing mental health. Although this study focuses on Pacific peoples in New

Zealand the principles of the research should be considered further to benefit a wider community.

Significance of the Study

To me, this study is significant for three main reasons. Firstly, this work contributes to the global knowledge base of 360 media literature. The project seeks to understand 360 media as a new form of communication for health messages. It is employed to creatively visualise new ways of delivering information and it is an emerging medium that offers new and unique possibilities for disseminating knowledge, in order to gain a better understanding. Said differently this research analyse and synthesise the promotional and communicative qualities of a new genre, located in-between interactive design, immersive design and video.

Secondly, it seeks to address new ways of promoting mental health in a creative and socially inclusive way, to create a positive effect on youth mental wellbeing by drawing on new technologies as a vehicle to engage Pacific youth and raise awareness in mental health.

Thirdly, this investigation aims to challenge the status quo of current mental health promotional material that are employed. A transdisciplinary approach, supported by co-design and *talanoa* methodologies, allow this study to be collaborative and inclusive in a unique way: Pacific worldviews and emerging technologies are used to produce a co-designed outcome which promotes youth mental wellbeing in the community. I would argue that literature for New Zealand health promotion strategies often overlook the importance of collaboration and only recently acknowledge the role of digital platforms as a potential tool (Ministry of Health, 2000; 2016). Furthermore, the study challenges the traditionally linear or top-down approach taken by health promotion by drawing on

community knowledge from a grassroots level which I believe are equally important. This is an opportunity for participants to play an active role in decisions that shape their lives and future outcomes

As 360 content becomes more accessible and is more and more integrated into websites such as *Facebook* and *YouTube* the findings from this work will add to the limited literature on 360 media.

Terms and definitions

It is important to define terms and definitions before we begin this journey. Pacific peoples are a multi-ethnic and diverse group with different languages and cultures (Anae, Coxon, Mara, Wendt-Samu & Finau, 2001) but share similar worldviews and practices. Throughout this study the term *Pacific* rather than "Pasifika" will be used to describe Pacific peoples living in Aotearoa who are both migrants and New Zealand born with their ancestral connections that are linked to Oceania. In defining the term 'Pacific' within this context it provides a broader worldview that goes beyond our sea of islands (Hau'ofa, 1994) that gives us hope, to be creative, dream big ideas, turn these ideas into reality and challenge the status quo. The following sections sets the direction and approach that informs this study.

The Investigation

The disparaging status of Pacific peoples' poor health in New Zealand is of great concern when they are compared to the general population (Mila-Schaaf, 2009; Medical Council of New Zealand, 2010). However, the status of Pacific mental wellbeing is something that we need to pay attention to as this has significant implications for our youth and their future. For example, 46.1 percent are under 20 years of age (Ministry of Pacific People, 2017) and are more likely to be digitally adept and consume online media at significant rates. This

warrants attention as here is an opportunity to create something in the health sector that promotes Pacific youth wellbeing in a digital space. In the following I argue that 360 media provides some unique communication qualities that align with health promotion and Pacific values.

Map of Concepts

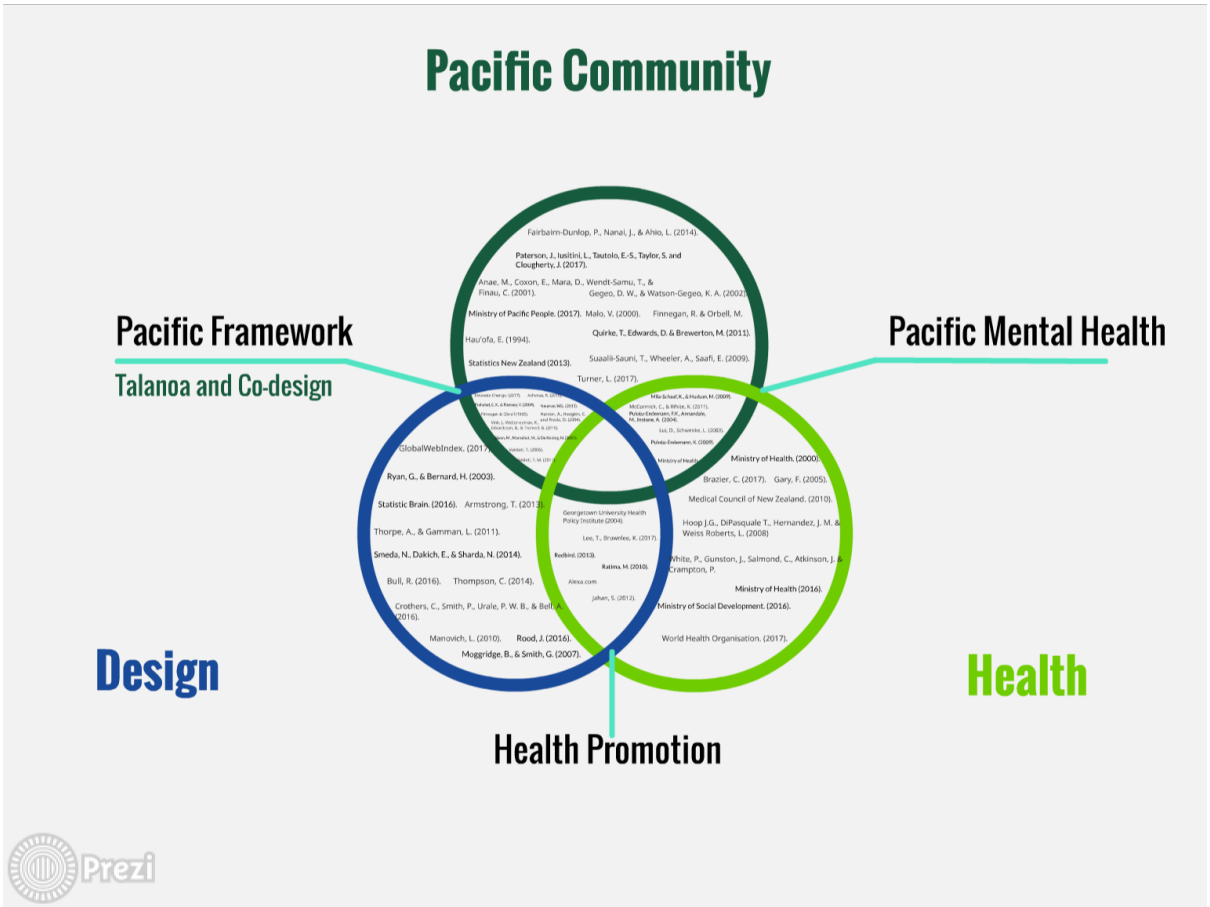

Figure 1: This diagram is a visualisation of the different fields of research covered in the following literature review. The intersecting point of this diagram represents the areas of focus in this study.[3] Also see Appendix 4 for close ups

[3] For a higher resolution image of figure 1 please visit https://goo.gl/vCnM8Z

Review of Literature for this Study

For this study I reviewed the following literature to establish the context of my investigation.

Pacific Community

Pacific People in New Zealand

The first major wave of Pacific migration began during the 1950s and 1960s in response to New Zealand's growing demand of unskilled labour (Statistics New Zealand, 2013). Waves of migrants saw thousands of families relocate to their new homeland in search of a better life. The population increased over time and is now home to the largest concentration of Pacific communities in the world. In 2013, over 63 percent of people identified with at least one Pasifika ethnicity were born in New Zealand. These ethnic groups are the fourth largest groups in New Zealand (Statistics New Zealand, 2013). According to the Census 2013 the five major Pacific ethnic groups in New Zealand are: Samoa, Cook Island Māori, Tonga and Fiji. Two thirds of this population reside in Auckland with one third of the population residing in other cities and towns in the country (Statistics New Zealand, 2013).

Around 55 percent of the youth population are aged 25 years old or younger, compared to 34 percent of the total population. The median age is 22.1 however the median age for other ethnic groups stands at 38 years. They have high rates of fertility and have more children compared to other ethnic groups (Statistics New Zealand, 2013). What is important to note is the growing youth population outnumbers the growth rate of New Zealand's overall population (Statistics, 2016).

Today Christianity and religion plays an integral part of their everyday life (Turner, 2017). Over 70 per cent of Pacific people in New Zealand affiliate themselves with Christianity or some other type of religious beliefs (Statistics New Zealand, 2013). To gain an understanding of the community it is important to acknowledge the common history of Pacific where missionaries arrived to convert their beliefs and practices to Western practices.

Socioeconomic demographics of Pacific peoples indicate they are in the lower socio-economic groups (White,Gunston, Salmond, Atkinson & Crampton, 2008) in New Zealand. For example, they are more likely to earn low incomes and be in lower paying employment positions compared to other ethnic groups in New Zealand (Statistics New Zealand, 2013; Ministry of Pacific People, 2016). Today there has been less improvement in Pacific peoples' economic, social and overall health status over the last 20 years (Ministry of Health, 2008; Statistics New Zealand, 2013).

What is important here is that Pacific have a large youthful population and the overall community is predicted to double in the near future (Statistics New Zealand, 2013). In this context we must focus on ways to engage youth of today to change their future outcomes in a positive way through a technological focus. This point will require more investment by the government in education, health and employment to improve their socioeconomic outcomes. As Pacific health needs grow, this will illuminate the importance of health promotion that incorporates their worldviews and practices.

Pacific Youth

Paterson, Iusitini, Tautolo, Taylor and Clougherty's (2017) Pacific Islands Families (PIF) Study found that 85 percent of youth participants spent most of their time online, with 81 percent having internet access at home. Two out of three of their top daily activities were social media platforms. This research sees the younger Pacific population as an opportunity to connect with a demographic who are more socially engaged online. As younger people are exposed to and consume more digital content it was important that this research is socially responsive and meets the target audience where they are ready to engage. It is essential that health promotion is proactive towards the increasing the demand in digital content while also remaining culturally relevant.

Worldviews and Practices

A Pacific worldview understands that humans, the environment, manmade and natural are all connected through the divine (Suaalii-Sauni, Wheeler & Saafi, 2009). The Pacific worldview does not separate these three elements of spiritual, social and physical but rather sees life as an integrated whole. Pacific behaviours are aimed at keeping these dimension in balance (Fairbairn-Dunlop, Nanai, Ahio, 2014). These beliefs and practices are evidenced through Pacific people engagement in church and community activities, the strong family and communal support systems, in the reciprocal exchange of goods and oral traditions commonly found throughout the Pacific (Health Research Council, 2016) and worldwide.

Using a Pacific lens for this research is essential as this research addresses their issues in health and communication for and by Pacific people. It is important to use relevant Pacific methodologies and frameworks that are appropriate to capture worldviews and meaning

making, *"The key to understanding health behaviours of Pacific peoples is to see issues from their worldview,"* (Medical Council of New Zealand, 2010, p.16). This particular point informs the rationale to implement *talanoa* for this study.

Research has described New Zealand born Pacific youth as caught in between two distinct cultures, their own and Western paradigms which at the best of times can cause tension particularly for youth. Although time and context may change for New Zealand born Pacific youth, Pacific beliefs still form the basis for ethnic minority communities' behaviours and practices in New Zealand (Pulotu-Endemann, 2009).

The Pacific concept of time takes into consideration two factors: time (*tā*) and space (*vā*). *"The vā constitutes a realm where personal and cultural stories of identity through space and time are imparted"* (Webb-Binder, 2009, p.27). Time and space are lived rather than recorded. The time spent on a given task is relative to the complexity of the situation. For instance, *talanoa* lasts until matters are resolved or it comes to a natural end (Vaioleti, 2006). Another example of this can be seen through how adulthood is marked by life events rather than chronological age.

This study uses Pacific worldviews in the context of New Zealand to understand and engage in the co-creation and designing of 360 media for a specific audience.

In this study, there is an opportunity to draw the audience worldviews and creative technology to co-create a product that is culturally inclusive in a digital space that is socially responsive. Only then 360 video will be used as an innovative way to digitally capture Pacific cultural practices, holistic worldviews and oral traditions.

To conclude, this section gives an overview of Pacific people in New Zealand including: common practices, Pacific youth and the Pacific worldview. It is important give context to the diverse Pacific population. The following section will look at the Health in context relation to Pacific people in New Zealand.

Health

Pacific Wellbeing

Gegeo and Watson-Gegeo (2002), propose that Pacific knowledge encodes features of the environment in order to understand the world. This can be seen in Pacific mythologies where there is a strong emphasis on nature and the ocean. Other examples include performative and oral traditions which reflect everyday life and form the foundation of Pacific culture (Finnegan & Obrell, 1995). Traditional aspects of life such as fishing and coconut husking are integrated into songs and performance. The connections and relationships between people, land and the divine are captured through dance, *kakala* making (fragrant flower lei), *fono* and many other art forms. These examples are part of cultural knowledge passed down through generations (McCormick & White, 2011). Digital health promotion for Pacific people should reflect their way of life and way of knowing, and 360 technology aligns with oral and visual traditions of Pacific culture to enable traditional spaces to be digitally replicated.

In the Pacific way, being 'fully healthy' is tied to being a productive member of the family and community. Maintaining strong familial bonds is essential in Pacific communities (Fairbairn-Dunlop, Nanai & Ahio, 2014). "Good health enables people to take up education and employment opportunities," (Quirke, Edwards & Brewerton, p.9, 2011). Being

unhealthy is associated with shame, stigma, embarrassment and being seen as someone who does not fully participate in family and community affairs. It may be argued that our cultures Pacific culture are often overlooked or rather ignored by western designed health services in New Zealand. Those living with mental health conditions end up feeling disconnected (Radio New Zealand, 2016).

A model of Wellbeing

Wellbeing in Pacific societies extends beyond the physical world. For instance, Pulotu Endemann (2009) contends their health and wellbeing is connected to all facets of life and is not just merely the absence of sickness. *"Pacific peoples see life and wellness as gifts, and as incorporating physical, mental, social, and spiritual wellbeing,"* (Medical Council of New Zealand, 2010, p.14). However, the view of health and mental health often clash with western value systems. According to Lui and Schwenke (2003) western approaches and models of health fail to include the spiritual dimensions that Pacific people associate with mental health. Aside, medical treatment addresses the symptoms rather than the cause of mental illness. This is why, health promotion in this context should better acknowledge and reflect the Pacific worldview, as described in ***Worldviews and practices*** earlier.

Pulotu Endemann's (2009) *Fonofale* Model offers a holistic visualisation of Pacific worldviews on health. Likewise, modelled after the Samoan *fale* (house) with the roof (culture), the floor (family), the four *pou* (poles for spiritual, physical, mental and other) with time, context and environment that surrounds the *fale. Fonofale* can be co-created to capture a pan-Pacific health model for the use in New Zealand. Also, Mila-Schaaf and Hudson (2009) contend 'Pacific values' are not enough to address and acknowledge complex, multifaceted and unique problems faced by people living in New Zealand. The

model is important because it captures a pan Pacific perspective, it is a dynamic model that is socially responsive and it designed for the use in a New Zealand context. Thus, time, context and environment allow the *fonofale* model to be applicable to the Pacific youth (18-25) in New Zealand and its digital environment. The model can be translated into the digital realm, to be precise, into the 360 media, which makes this research project a relevant and adaptable innovative integration of creative technologies.

Said differently, the holistic nature of the Pulotu Endemann's model paired with the holistic visualisation capabilities of 360 media created an interesting meeting point for health, and health promotion. The immersive 360 media gives youth the ability to capture the four walls of a house, the *fale* makes for a compatible visualisation of this health model. Just as the Pacific worldview sees health as being interconnected as a whole, 360 media captures the context of this research within dual roles, a metaphor for a Pacific health model as well as an interactive digital tool for endorsing Pacific's youth mental wellbeing.

Mental Health

Pacific peoples made up 7.4 percent (295,491) of New Zealand's population with almost two-thirds being born in New Zealand (Statistics New Zealand, 2013). As briefly raised in ***Pacific people in New Zealand***, they experience higher rates of mental illness compared to other ethnic groups and are less likely to access mental health services. Misdiagnosis, stigma, discrimination and lack of education are major barriers for Pacific people accessing mental health services (Pulotu-Endemann, Annandale & Instone, 2004). New Zealand-born (31.4%) are twice as likely to have mental health issues in the past 12 months compared to those who have migrated here to New Zealand after the age of 18 (15.1%).

Quirke, Edwards & Brewerton (2011) asserts unless preventative measures and culturally competent treatment are taken into consideration Pacific health discrepancies in New Zealand will continue to rise.

On that topic, Mila-Schaaf & Huson(2009) describes Pacific mental health as having a 'bleak vista.' She acknowledges the tension of Pacific people living in New Zealand where they are expected to navigate between two very different value systems. In this space there is scope to make a positive change for youth through a technological focus and to investigate to potentials between 'real' and 'digital' representations, between 'inflated' or 'augmented' perceptions.

Gary (2005) identified stigma as a significant barrier for ethnic minority groups accessing mental health services. Gary (2005) suggests ethnic minority groups who are already exposed to discrimination face further stigmatisation when dealing with mental illness, and Campbell (Radio New Zealand, 2016) explains the stigma for mental health patients in Pacific communities has negative connotations, *"It still that sort of feeling that people with mental illness have done something to deserve it, have done something wrong, maybe they have breached a tapu, whatever it is, it is their fault."* As part of this research it will seek to address barriers such as of stigmas when dealing with Pacific mental health through using a strengths based approach. Promotional material that takes a strengths based approach should accentuate family and community. These factors play a significant role in Pacific peoples' sense of identity and place particularly for youth and their wellbeing.

Cultural Competency

Cultural competency is important tool for both health services and health promotion, it understands and acknowledges the differences between cultures (Lee & Brownlee, 2017). In the context of this research, cultural competency is connected to the role of technology and how 360 media communicate health messages to Pacific youth. Cultural competency in health promotion is about designing health messages for a specific audience using appropriate language and imagery to engage with[4]. For instance, Georgetown University Health Policy Institute (2004) suggests culture-specific attitudes and values should be included into health promotion. Yet, this research draws upon the *fonofale* health model and *talanoa* to ensure that the study is relevant and culturally aligns with Pacific people.

To sum up: this section gives context to understanding of health, traditional concepts, an indigenous model of wellbeing, mental health status, cultural competencies and how all these elements create an opportunity to draw on technological media to engage our youth. The following section will look at Design, more specifically Media and Communication

Design

360 Media

Most of 360 videos are designed to capture panoramic images or videos that are stitched together from multiple cameras to appear as a seamless whole. The video allows the viewer the freedom to explore every angle of a scene as seen in the below image.

[4] For more details, please check ***Six key findings***

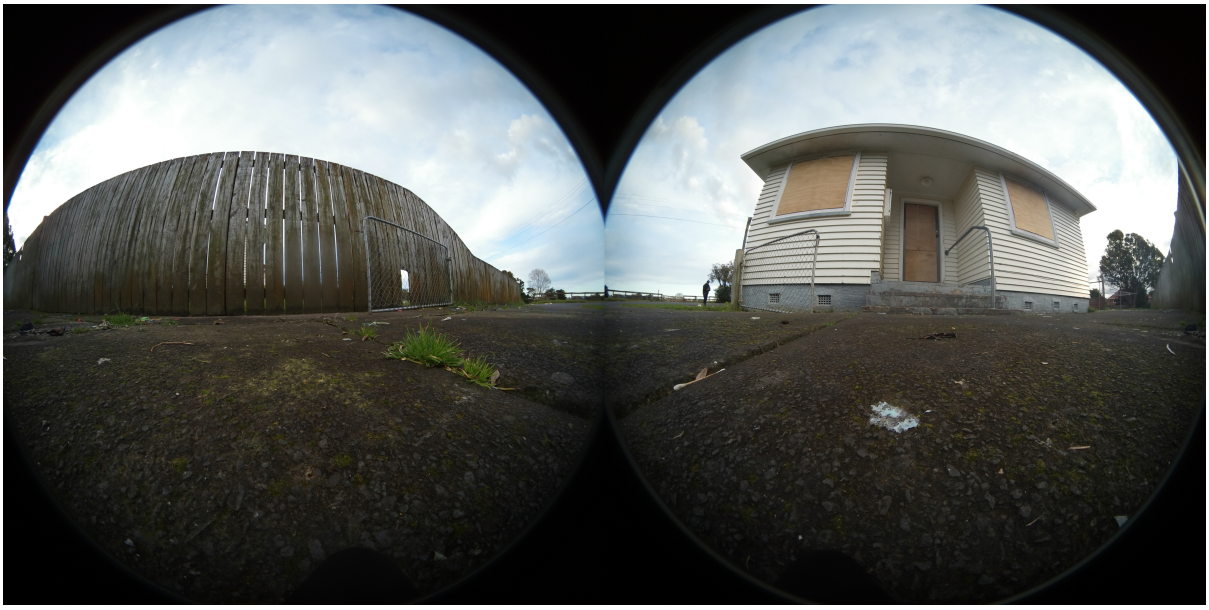

Figure 2: This screenshot is an unstitched 360 image of two 180-degree angle of a house, showing how 360 media is able to reproduce the totality of a scene.

This creates an immersive experience in comparison to traditional media. There is also little known about the use of such technology, its social usage and the effect it has as a tool for promoting key messages, that target youth mental wellbeing in this research. This digital medium gives the power to an audience to experience the video in their own way, at their own time. The 360 video is inherently interactive yet the barrier of accessibility is very low as seen by the integration of this medium on sites such as *Facebook, Vimeo*[5] and *YouTube*[6]. At the moment, there is limited research on the social uses of 360 video, yet it is not uncommon to encounter this type of content on social media.

Although 360 video and virtual reality (VR) are often referred to as the same, they are two distinct mediums. The format of 360 video and VR are visually similar, 360 video can be viewed on VR platforms, while VR requires additional hardware and a VR headset. Both are immersive however 360 video is scrollable, while VR is not, which allow a different

[5] Please check https://join.vimeo.com/360/
[6] Please check https://goo.gl/xY4bGV

viewing perspective of a panorama, mainly. Both platforms give the user the ability to explore all angles of a scene or environment: VR allows the user to control the experience, where as 360 video is more linear and narrative driven (Adams, 2016). Also, VR has been around for decades, dating back to the 1960's (Brown, 2017) while 360 video is relatively new, early 2000. The choice of 360 media over VR for the purposes of this study came down to accessibility, convenience and the current state of media consumption, particularly by youth[7].

Today VR has become quite the buzzword within the IT industries (Rood, 2016). Big clunky hardware has been reduced to consumer level headsets where VR is more accessible than ever[8]. However, a major barrier of access to good VR, which includes comfort, visual quality and ease of use , is the expensive equipment required. Not only are the headsets expensive but a PC, with a good processor and graphics card, that is capable of running VR content is needed. The convenience of VR is still a limitation of the medium. I see 360 video as the bridge between traditional media and VR: 360 offers a similar experience to audiences without the high price tag within a minimum setup time also.

The holistic nature of 360 content is compatible with Pacific worldview on health. This study identifies a visual connection between 360 video and health models like *Fonofale,* that capture a living environment exploring the four walls of the home setting. This investigation argues that 360 video serves as an analogy for the *fonofale* model reinforcing the notion that everything is connected. This connection between technology and an indigenous model of health extends beyond visual parallels, both concepts attribute the

[7] Please check ***Pacific Youth*** and ***Media Consumption***
[8] For more information about prices, please check:
https://www.tomsguide.com/us/pictures-story/1044-best-cheap-vr-headsets.html

importance of time, context and environment. The notion of time is important here because the audience is virtually suspended when exploring the non linear form of content while 'sitting' in a digital environment which aligns with how people consume media. There is a kind of mirror effect between reality and virtuality, as captured in the below image.

Figure 3: A 360 video experiment during a kava session in Auckland.
Additionally, 360 cameras are portable and convenient and do not disrupt the flow of the environment to capture and digitally represent any traditional spaces, in time.

Media Consumption in New Zealand

The internet is seen as the first and most predominant source of information (Thompson, 2014). And, Crothers, Smith, Urale and Bell's (2016) study on the internet access and use in New Zealand found that 95 percent of respondents surf the web while 85 percent visit social networking sites. Moreover, GlobalWebIndex's (2017) found that 16 to 24 year-old demographics consume the most digital content compared to other age groups, spending over three hours daily online. Mobile devices account for 46 percent of online time for this age group. Their report shows consumption of digital content has consistently

increased across all age groups. Crothers, Smith, Urale and Bell's (2016) study The World Internet Project study for New Zealand reveals also that 91 percent of New Zealanders have access to the internet. These statistics are highly relevant for Pacific people, with 46.1 percent of Pacific people being the age of 20. People are now looking to the internet and search engines to address their needs. Here I argue that health promotion need to align with how people are consuming media to meet people where they are ready to engage. These statistics highlight that digital content should be responsive to mobile devices phones and other devices that orient with social media conventions. To me, these statistics underscore the value of using digital content and new media that is consumed globally. Hence, based on the above references, it appears that youth are our ideal target group in health promotions.

New Media

Manovich's (2001) concept of 'new media' can be prescribed to all forms of social or interactive technologies. New media is defined by how it is distributed rather than how it is produced. Furthermore, the digitisation of media "*Affects all stages of communication, including acquisition, manipulating, storage and distribution"* (p.43). Manovich argues there is a correlation in the technological advancements and social change, the two are interconnected. Hence, this has fuelled a post industrial mindset of technology that is customisable and reactive to the needs of the individual. More specifically, 360 content allows users to experience media on their own and has become easier to access and share. The concept of new media, and media that is socially responsive ensures that the medium and approach used are relevant and user friendly. Based on these observations and findings,

this research's project consider that it is important that the tools and communicative qualities of 360 video align with new media and the audience such as youth.

Figure 4: (A 360 º of Glen Innes shopping centre). There is a growing market for 360 experiences although it is still in it's infancy. An early experimentation on social media site Youtube, the second most popular website on the web (Alexa, 2017). https://www.youtube.com/watch?v=LgxT26E8_Rk

Besides, Moggridge and Smith (2007) proposes a similar idea where designing for the right people should always come before conceptualising how to build new media. This study argues that promotional material and health messages should always reflect how people are currently communicating and using technology. Forcing new, unfamiliar technology onto the audience will always have undesirable results whereas 360 content as discussed earlier is becoming increasingly accessible.

Figure 5: Early consumer 360 video cameras were priced at USD $600+ USD with 1920x1920 pixels. The latest 360 camera now cost USD $160 with 4096 x 2048 pixels[9], which allows a bigger range of socioeconomics group to access such devices (A 360 scene of teenager using a laptop).

Design interaction defined by Moggridge and Smith (2007) is *"The design of the subjective and qualitative aspects of everything that is both digital and interactive" (*p.660). This statement should inform how design should take into account merging the digital and natural worlds. We are in midst of the digital age where the integration of technology is expected when designing anything. Digitising health messages without considering how people consume media will be meaningless. Adding meaningless interactivity to media can serve as an added barrier to the audience, whereas interactivity should inform or entertain (Bull, 2016). Introducing interactivity, the viewer gains more control and a more personalised and engaging experience (Bull, 2016). Interactive elements should always have meaning and be well thought out rather than thought of as 'digital sugar' to trick users into buying into key campaign messages (Redbird, 2013). It is important to note that although

[9] Please refer to https://camelcamelcamel.com/360fly-360%C2%B0-HD-Video-Camera/product/B00XAIT0PU

there is some structure in 360 media, the users can interact with the content in their own way, can create their personal narrative (e.g. health messages), which provides them with a unique experience and encourages exploration[10].

Figure 6: This scene with the mirroring of the same person visualises internal conflict and schizophrenia. This experimentation hints toward the added layer of interaction possibilities with 360 video. This interaction allows users to transition between scenes and drives the experience and narrative from one space/world (the negative thoughts) to another one (the positive thoughts). https://www.youtube.com/watch?v=CkYLOPkObkM.

Internet, and its usage, has allowed people to access to more information than ever before[11]. Ubiquitous access to unlimited amounts of information and content has taken a toll on how people consume media (Thompson, 2014). In the age of scrolling through timelines and 280 characters studies (*Twitter*, for instance), has shown a significant reduction in attention spans (Statistic Brain, 2016) due to our 'digital lifestyles'. With digital platforms being saturated, with media content, there is a lot of competition for people's

[10] Please refer to ***Findings***
[11] Please check ***Pacific people in New Zealand and Media Consumption***

attention. Tools such as targeted advertising, search engine optimisation and analytical tools assist in terms of making sure that content is seen by the right audience and also alleviates some of the contention surrounding the digital space. Digital health promotion is difficult enough (Jahan, 2012) in general and deals with a complex picture in New Zealand: adding another layer that focuses on mental health while targeting Pacific people makes the co-creation of any Health promotional materials challenging. It needs to be accurate and engaging while aligning with the conventions and specificity of local social media.

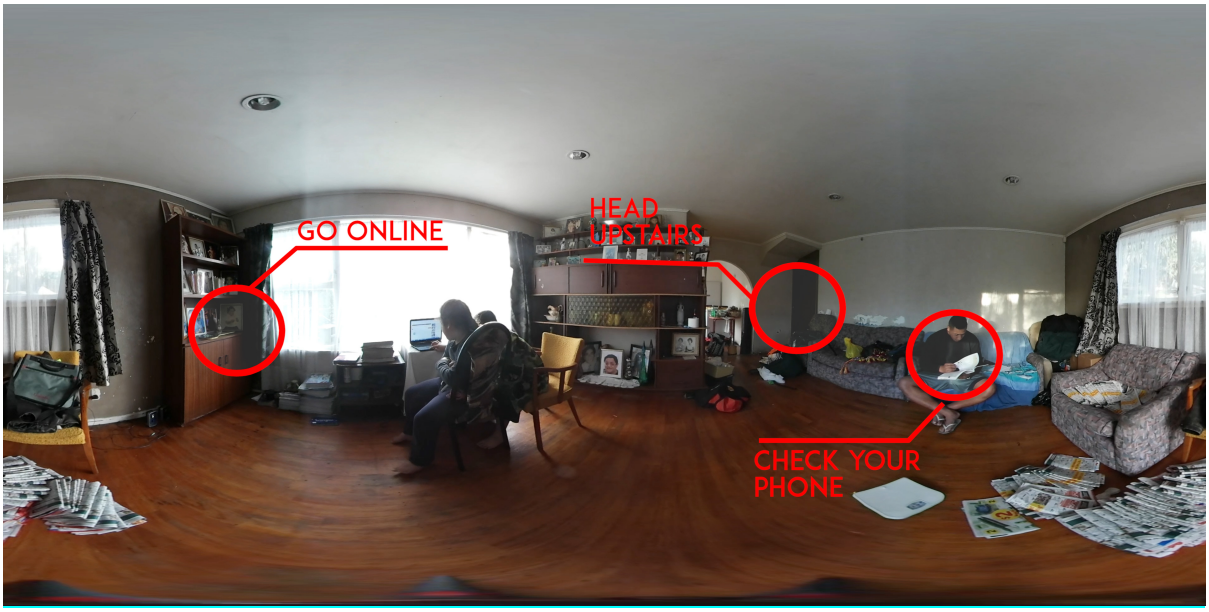

Figure 7: A 360 scene of capturing a living room. This shows how 360 video can share the intimate environment of the family home.

Health Promotion

Health promotion can be described as having an asset based approach that integrates indigenous themes into the communication of health messages (Ratima, 2010). The New Zealand health strategy (2016) lists 'being people powered' as essential for the future direction of health in New Zealand; and the World Health Organisation (2017) lists

'health literacy' as a key component to good health promotion. Hence, 'people powered', improving 'health literacy' and enabling people to make informed choices around health services is the ideal outcome. However, to engage the audience health literacy must be accessible, people need to understand and use the information to make the right decisions in health and wellbeing (Ministry of Health, 2017). This area of literacy is worth exploring to promote Pacific health that is people driven.

Through the use of co-design and *talanoa* participants are able to shape the outcomes and have active input throughout the study. *Talanoa* allowed for more *mo'oni* (truth) and *mafana* (warmth) which is vital when dealing with mental health promotion. Socially responsive design focuses on social impact and the objective of social change (Gamman & Thorpe, 2016). This study argues that socially responsive design in health promotion allows for more effective and targeted engagement, as previously explained, although not everyone will have access and use digital tools, as stated earlier also.

There are opportunities and a growing need to develop digital health promotion designed to target Pacific people by using imagery, design and themes that are culturally relevant and familiar health messages it is easier to connect Pacific youth, in comparison to static, printed, or linear, traditional video.

Digital Storytelling

Storytelling is an ancient practice used to share knowledge, values and culture. As previously mentioned storytelling in Pacific cultures is vital in ways of knowing, sharing and being. The 'natural progression' of the oral storytelling tradition in this context shares similar parallels with Pacific oral traditions. Using multimedia such as 360 video, hypertext, images allows to capture personal narratives on a digital platform. Stories on a digital

platform amplify the voice of the community as everyone can participate and everyone has a story to tell. Thus, storytelling, within this study, can be easily applied to health promotion material (Smeda, Dakich & Sharda, 2014) that youth can connect with.

Figure 8: Another example of using 360 video in a kava session in Auckland. This image shows how this type of media can be viewed in a traditional space, shared with others as part of digital storytelling.

Finally, this section outlines 360 technology as a means of communication and the landscape of media consumption today. The conceptual and visual connection between 360 video and the Pacific understanding of health is discussed in this section. Digital media trends (including digital health promotion) are looked at along with the elements that enhance digital communication. The following chapter will discuss the design of the study, data analysis and the findings of the study.

The Project

The study outlines the research design and process undertaken to address the main research question. The research proposal, consultation, literature review (previous chapter) and ethics approval were the first stage of the study. *Talanoa* sessions with local health workers were organised to identify key campaign messages for a 360 video prototype. The final research phase was evaluation sessions with the health workers and Pacific youth (age 18-25) from the local community. The feedback from the events informs the final 360 mental health promotional video. The 360 video and findings of the research will be gifted back to the participants.

Methodology

This is a qualitative study that draws on co-design and *talanoa* frameworks. These frameworks inform the approach in this work whereby co-design seeks to work in collaboration with people to design a solution to a problem while *talanoa* is employed both as a tool and analysis framework to ensure indigenous authenticity that reflect Pacific worldviews.

Co-design

Innovate Change (2017) describe co-design as a mindset of gathering diverse people who are directly affected by a problem to create a solution to a problem, challenge or opportunity. Co-design is built upon acknowledgement of people being experts in their own lives and giving them an active role in decisions and outcomes that shape their lives. Furthermore, Prahalad, and Ramsey (2004) contend co-design *"implies shared learning and communication between two equal problem solvers,"* (p.6). The benefits of range of co-

design allow for more efficiency, higher satisfaction and a better fit between the services offer and the needs of the users. (Steen, Manschot and De Koning, 2011).

Hence, co-design values align with the Pacific worldview and *talanoa*. Relationships and conversations are essential to the success of co-design and are important factors in wellbeing for Pacific people. As a consequence, co-design and *talanoa* erode the relational imbalance between the researcher/service and participant/user through active participation. Besides, co-design is linked to transformative aims (Vink, Wetter-Edman, Edvardsson and Tronvoll 2016) which are parallel to how *talanoa* captures the challenging, probing and re-clarifying of ideas and goals. The compatibility of co-design and Pacific culture strengthen the *talanoa* and outcomes of this research.

Talanoa

By using *talanoa* as both a research method and methodology[12], this study captures themes using an appropriate framework. This is important as a western view on health cannot fully capture the perspectives of health held by Pacific (Fairbairn-Dunlop, Nanai, Ahio, 2014). Cultural competency often refers to the ability of health providers to understand and work with other cultures, and *Talanoa* allows this specific point to happen throughout the research process and the data collection phase with a view to achieve deeper connections with participants, and meaningful collaborations when using creative technologies' approaches.

Understanding the relationship between health services, providers and promotional material that targets Pacific people is vital to this study by utilising the knowledge that

[12] Further explanation can be found in ***Methodology***

health workers hold in this field[13]. Health workers also offer an insight into how mental health issues for Pacific youth (18-25) and health promotion are approached locally. Relationships that are built through *talanoa* allow for teaching and listening for both the researcher and participants which is an important factor in co-creating a transdisciplinary project.

It is important that this research reflects and acknowledges Pacific themes and indigenous knowledge that do not fit within a western framework. *Talanoa,* as a research method employed in this study, allows researcher and participants to explore deeper connections and relationships that goes beyond traditional forms of interviewing. Although interview and *talanoa* are structurally similar, it is argued this approach erodes the hegemonic relationship between the researcher and the participants.

Talanoa carries with it the complexities of understanding cultural themes, silence, reflective thought, body language and tone of voice (Vaioleti, 2011). All of these elements are monitored and guided to allow for more *mo'oni* (pure, real, authentic) information to be shared. Participants' are empowered, alike co-design, as the discussions that take place are more of an exchange where those involved in *talanoa* probe each other in search of deeper meaningful engagement that is rich. The quality of the *talanoa* is dependent on the trust and connection established between those involved. The process may seem casual and flexible but when used in a formal setting it is authentic "…structured by tapu, cultural expectations and accountability," (Vaioleti, 2011, p. 115).

In a research context *talanoa* is used to conduct and guide interviews, discussions and acquire information drawing on the four principles at each time point. In this study it is important to make research participants feel comfortable throughout the process and

[13] Please refer to ***Methodology***

understand their knowledge and insights. There is merit in using a Pacific framework within this study where traditional modes of knowledge work in tandem with my quest to collaborate and produce work that is contemporary in a digital space. Lastly the combined approaches of co-design and a Pacific framework remove traditional power-based relationships between the researcher and participants.

The Participants

For this study I decided to talanoa with two key health workers and five local Pacific youth.

Health Workers

There were two key health workers involved in this study. Participants were local to and had historical family connections to Tamaki. The health workers had experience working with Pacific youth and worked for a well established organisation in Tamaki. One participant was a male and the other was female. Both participants had a wealth of work experience in the health system.

Pacific Youth

The youth involved in this study were aged 18-25 years old and were New Zealand born Pacific. Those who participated in this study did not have a history of mental illness. Also, the participants are involved with Te Āmiorangi, a local youth community group, and three males and two females agreed to participate in this research.

The Recruitment Process

Health workers were selected based on their work experience, interaction with Pacific youth, and understanding of Pacific health at local and organisational levels. For example, both health workers have worked with Maori and Pacific youth for at least 10 years. As defined earlier, ethnicity was important but not as essential as experience in the recruitment of the health workers, with one health worker being Maori and the other was Tongan descent.

Te Āmiorangi, a local youth community group is based in Ruapotaka marae (an urban marae) were selected to be part of this project because of their community presence and pool of potential Pacific youth participants. Although Te Āmiorangi maybe guided by Maori *tikanga* the ethnic makeup of the group is a reflection of the Tamaki community which is predominantly Pacific.

The participant groups of health workers and Pacific youth were chosen to be apart of this study as both groups hold valuable knowledge and perspectives in Pacific people, health and communication.

Due to the diverse research participant groups varying recruitment techniques were employed in this research. Separate information sheets and advertisement were developed to better connect with each participant group. A promotional video that outlined the purpose of the study and was used to recruit prospective youth participants and sent to marae leaders who circulated it through Te Āmiorangi networks[14]. Marae leaders and protocols identified suitable youth participants. Potential participants who expressed interest were sent a research abstract and a consent form. Conversation around accessibility and availability followed.

[14] To visualise the video, please follow the link: https://goo.gl/xMi2AV

Health workers were contacted through their publicly accessible contact information. Positively, organisations that were invited to be apart of the study were prominent and had a good reputation in the community; and health workers who expressed an interest in the study were sent an abstract and and consent forms. Negotiations around access followed. As the timetable for this study underwent a few changes, participants were given a few weeks' notice which changed the research schedule. Engagement with participants was flexible to participants' needs and availability.

Actual Data Collection

Talanoa sessions with Health workers

The research methodology employed a qualitative framework using *talanoa* in conjunction with co-design, as discussed earlier. The first session with health workers looked to build rapport and explore how local health services are engaging Pacific youth. Building connections with the health workers was vital for *mo'oni* (real, authenticity). These encounters included how mental health work addresses Pacific youth, barriers and enablers. A significant part of *talanoa* revolved around the perceived main causes and issues with mental illness in Pacific health. A flexible approach was designed to keep conversations flowing and to ensure main talking points were covered. This approach became less important once *faka'apa'apa* (respect) and *mafana* (warmth) was established with particpants. The intent of the *talanoa* was to gain a better understanding of mental health at a local level. Discussions around what the main contributing factors to mental illness at national and local level were revealed.

The second *talanoa* aims to review existing health promotional materials. The health promotional media analysed included brochures, videos and digital advertisements (see Appendix 3). All material reviewed was made in and for New Zealand. Not all materials focused on mental health as the purpose of the *talanoa* was to succinctly analyse the state of health promotion in New Zealand. The promotional materials were selected based off accessibility, prominence and diversity. Then, 360 video, as communication tool, was introduced. As there is little in terms of health promotion using 360 video format a generic 360 video example was shared with participants. The rationale behind this was not to bias and limit the possibilities of the final 360 video, also. The introduction of 360 video changed the dynamics of *talanoa,* where I was able to share my knowledge and expertise with health workers.

Data from *talanoa* offered a higher fidelity snapshot of Pacific mental health in Tamaki. This data corroborated with existing statistics and literature but also capture unique insights and perspectives.

Evaluation Sessions

Two sets of evaluation sessions were held once a 360 video prototype based on the talanoa with the health workers was completed. The first set with the health workers and a second with the youth to validate and further shape the final 360 video.

Health Workers

Building off the information gathered from previous *talanoa*, a working 360 video prototype was prepared. The evaluation session reviewed the prototype and covered strengths, areas of improvement and suggestions. These sessions were used to sustain the

connections and relationships that were developed throughout the research process and reinforcing the health workers' active role in the study. The feedback from the participants inform the design decisions of the co-created final 360 promotional video then.

Pacific Youth

Five Pacific youth participants (three males and two females) were invited to engage in an evaluation session. They were asked to share their thoughts, opinions and suggestions of the working prototype. The evaluation sessions with the youth participants served as a validation process. As the 360 material is targeted to Pacific youth it is only fitting that they are given the opportunity to shape or have some influence in the study. The feedback from youth plays a significant part in the final research outcomes.

The evaluation meeting aligns with Achenza's (2016) iterable co-design process of ideate, design and test. With *talanoa* being the ideation and identifying key themes which in turn, informed the 360 prototype design and evaluation being tested with users. This process loops from test to design in order to support the creation of a more relevant and appropriated final design, 360 media, than the existing materials.

Methods

Talanoa sessions were audio recorded. The recordings were transcribed through *Google*'s dictation. Recordings were then examined in closer detail and amendments were made accordingly.

An *Excel* database was created to house the transcribed themes (see Appendix 2). The database did not retain any identifiable information from the participants. This study employed Ryan and Bernard's (2003) techniques of word repetitions, key-words-in-context

(KWIC) and comparing and contrasting ideas to identify themes in the qualitative data. The database was further refined and categorised into emerging themes.

All *"social research has an ethical-moral dimension"* (Neuman, 2011, p. 143). Even though this study had a design focus, consulted with health workers and did not target participants it still acknowledges that mental health is a contentious space (Hoop, DiPasquale, Hernandez & Weis Roberts, 2008). Before engaging with the research participants, ethics approval was gained from Auckland University of Technology Ethics Committee (AUTEC), see Appendix 1.

There were two main ethical considerations for this study. The first, making sure participants understand what their role in the study entails and are willing and able to give consent. The second, ensuring the final 360 media is ethically sound. The voluntary nature of participation is empathised at all stages of the research. Participants were aware there was no consequences for in withdrawing from the study. All the participants were aged sixteen years-old and over.

Research Limitation

Practical limitations to this research include, limited literature on 360 media, time constraints and sample size. As 360 video is an emerging medium, use and literature is still developing. There are limited academic resources that directly relate to 360 video to draw upon for this study. Although sample size is not as important in qualitative research (Hardon, Hodgkin and Fresle, 2004) a larger number of participants (both health workers and Pacific youth) would have been ideal but due to time constraints and a prolonged ethics approval process the research timetable was condensed. The delay was significant in the

context of a Masters degree timeline, this means that engagement and number of participants should be carefully considered for further study.

Six Key Findings

A number of themes that were seen as important to health messages and applicable to 360 video were identified in the talanoa with the participants.

Appropriate Language

There was a consensus amongst all participants that it is important to have promotional material where language is accessible both visual and oral. By including language that is accessible this builds a connection with the intended audience. For example, culturally relevant and relatable language is essential in health promotion. Appropriate language and imagery in talanoa revolved around existing health material and the prototype developed for this study. "Language", "sports", "relatable faces and experiences" were some suggestions made by participants of how appropriate language could be implemented in health promotion. Following are some examples which supported the co-creation of the final 360 media:

Health Worker 1:

> *My concern is that he's (John Kirwan) sort of the face of depression advocacy and if you're for example rangatahi, Maori 17-18 (years) I don't think you're going to be able to locate yourself in JK's (John Kirwan) experience.*

...In particular, in a Pacific context being at church and rugby and those types of experiences, yeah… really culturally appropriate.

Health Worker 2:

…at this stage Pasifika and Maori, so that's why I like the brown faces and the approach and the use of the language. That's our language, that's how we use our language.

Youth2:

I like how it, just looks like someone's house, my house. This is what it feels like to be in an Island house. Just zoning out on my phone, sibling running around, mum calling to do chores.

From the quotes above it clear that when health promotion is developed it should have language that is accessible, present images that are culturally appropriate for example, use faces that look like the target audience.

Collaboration

Co-design and collaboration was a big part of this research. This was also echoed in *talanoa* with the research participants. Participants contended that health promotion should include the targeted audience when developing health messages. Empowering Pacific youth to be play an active role in addressing mental wellbeing was seen as important to the participants, as captured in the below quotes:

Health Worker 2:

…the thing I like about it is the aspect of being part of the solution so contact us at… means that ok I'm not just going to watch something then forget about it I'm actually going to have be able to follow it through and go to to the next level of it

Youth 3:

I like about it is the aspect of being part of the solution so contact us at… means that ok I'm not just going to watch something then forget about it I'm actually going to have be able to follow it through and go to to the next level of it.

The target audience plays an active and significant role in designing health materials as they are the ones using it, or supporting and disseminating it. The target audience are the main stakeholder and the material should be useful, relevant and credible.

Empathy

Stigma is prominent barrier for Pacific people and mental health services (Malo, 2000). Conveying empathy in health promotion was identified by participants as an important element when creating Pacific health promotion. Empathy in health messages alleviates the stigma associated mental illness. Below are some highlights:

Health Worker 2:

Understanding what mental health is, so automatically people's minds goes to someone who's 'mental' so you say the word mental and already triggers off images of like people out of it people that a bit looney, loopy, schizophrenic, bipolar, angry

but the biggest things the biggest challenges that I think is what inhibiting youth mental health is this eroding sense of identity and purpose.

Participant 3:

I like how I can relate to what I'm seeing. Mental wellbeing isn't as scary mental illness.

Building empathy allows the audience to locate themselves within the material. This is an important aspect as it signals the promotional material has thought about and understands the concerns of the targeted group.

Strengths based

Hammond (2010) contends a strengths based approach does not ignore the problem but, rather

"It attempts to identify the positive basis of the person's resources (or what may need to be added) and strengths that will lay the basis to address the challenges resulting from the problems," (p.3).

This strength/asset based approach was a reoccurring motif throughout *talanoa* with participants, such expressed here:

Youth 1:

I like how it focuses on what makes you mental well rather than mental illness.

Health Worker 1:

…But in fact it's really connected to so many other things and

mental health as the outcome of an accumulation of things so for youth mental health it's actually about having really good positive relationships and a strong foundation from home and a strong environment around you.

By emphasising what contributes to mental wellbeing instead of the factors of mental illness encourages positive social change. Mental illness is subjective experience and this study does hold expertise in that field. A strengths based approach mitigates this issues as it allows for messages to take on a more universal appeal (Armstrong, 2013).

Identity

The participants acknowledge the complex picture of identity for Pacific youth in New Zealand. The duality in identity for Pacific people was an emerging theme. The tension in cultural identity, being connected to indigenous values while also living in a western dominated society. The strain of social identity, where values at home and in the family are at odds with the social environment.

Health Worker 1:

> *…we are losing kind of I guess indigenous ancient and sacred kind of knowledge is and practices around Rites of initiation Rites of Passage community understanding ourselves as whole beings with missing that and it's getting eroded so it's getting less and less acknowledged and being dominated by another kind of the system it's taking us often different places*

> *The other biggest mental health challenge that I think we're facing is their perception and the narrative that they telling them self like that's becoming real clear for me and those things are on my girls self harming boys fighting drugs and alcohol those are bizarre symptoms of these things around self-confidence*

Talanoa revolved around the complex relationship between both the Pacific and New Zealand identities held by Pacific youth. Although this relationship can be seen contentious, it allows for Pacific youth to draw from two value systems (Mila-Schaaf, 2009).

Time

360 video allows the user to suspend time and explore at their own pace. This offers a non-linear experience that encourages engagement and meaning making.

Health Worker 1:

> *It gives you the ability to capture different stages of life, almost like memories… You can also follow your own narrative and schedule.*

This aligns with the Pacific understanding of time (discussed in detail in ***Pacific Worldview***) where the user is encouraged to experience the 360 content in accordance to their own timeline.

Conclusion

This study shows new ways of promoting mental health in creative and socially inclusive ways by drawing on new technologies as a vehicle to engage Pacific youth. This research's project contributes to the literature and new knowledge on 360 media, and provides a better understanding on how 360 can be used in health promotion. It highlights how this type of media can use conceptual connection between the Pacific worldview youth's mental health as discussed in ***Pacific Worldviews*** and ***Health Promotion***. Also, it

synthesises the responses and contributions from the research participants, discussed in ***Six key findings***. Furthermore, this investigation contends that 360 media is a pertinent digital progression to Pacific holistic and oral traditions and that co-design and *talanoa* allow for authentic connections and conversations to create relevant and significant content for a specific and engaged audience. This is why, I argue that this research is successful in empowering Pacific youth to shape and relate to health promotion.

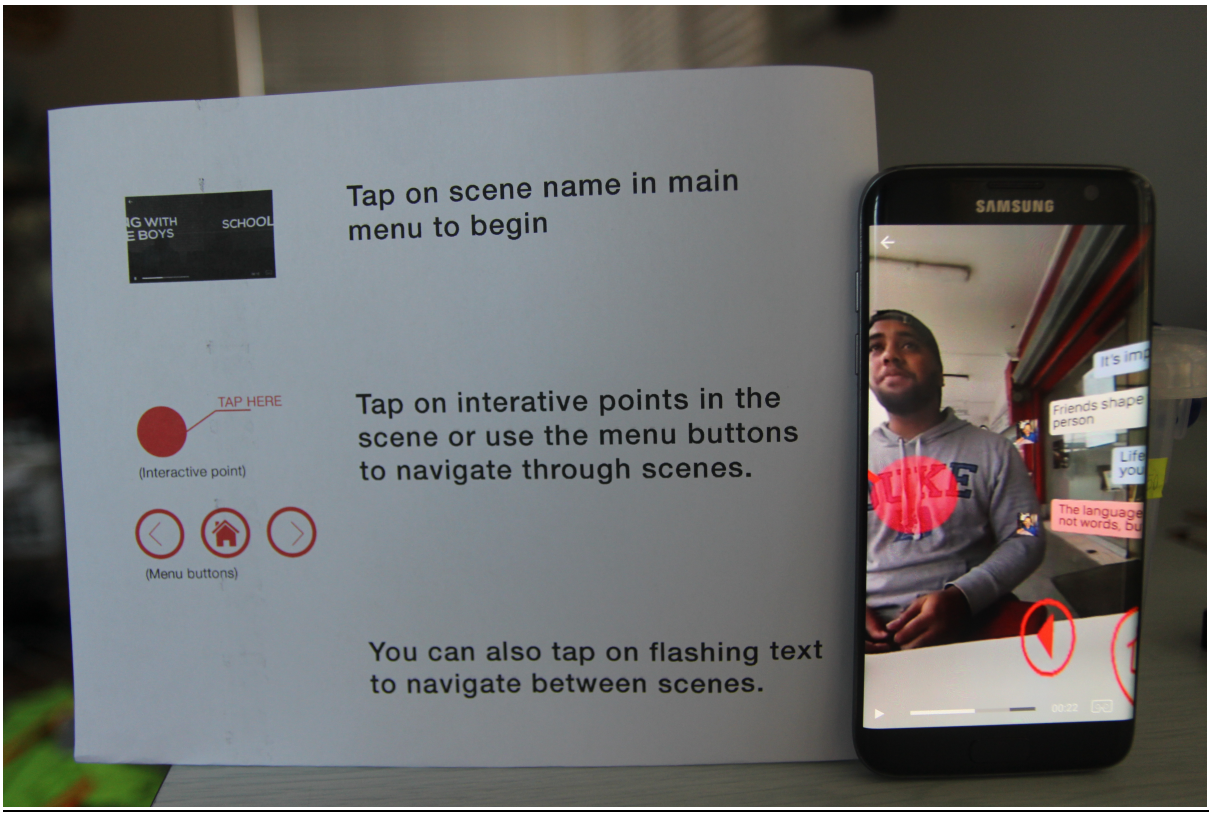

Figure 9: Working prototype of interactive 360 promotional material with instructions.

Although 360 video is increasingly affordable and prevalent, yet accessibility still remains a significant barrier. Pacific communities are often on the wrong side of the digital divide due to socioeconomic barriers and access to limited digital resources, such as Internet.

Figure 10: Different 360 scenes of the prototype[15].

[15] Please visit https://goo.gl/PSsaQx to view a playlist of all scenes.

Research Limitation

Also, Practical limitations to this research include, limited literature on 360 media, time constraints and sample size. As 360 video is an emerging medium, use and literature is still developing. There are limited academic resources that directly relate to 360 video to draw upon for this study. Although sample size is not as important in qualitative research (Hardon, Hodgkin and Fresle, 2004) a larger number of participants (both health workers and Pacific youth) would have been ideal but due to time constraints and a prolonged ethics approval process the research timetable was condensed. The delay was significant in the context of a Masters degree timeline, this means that engagement and number of participants should be carefully considered for further study.

The dissemination of the final prototype is yet to be fully realised due to the experimental nature of this collaborative practice-based project. The study focused on the communicative qualities of 360 video. Finally, the study provides the potential for further exploration in the use of this media as a communication and empowering tool in different contexts. The study led to the bigger question of: *How can 360 video be better integrated into the digital landscape (dissemination) that is accessible to everyone (affordability)?*

Glossary

360 video/media	Media which captures 360 degrees of a scene.
Co-creation	The action of actively involving end users in developing ideas and implementing this into the research project
Co-design	A framework of gathering insights from consumers and users during the design of a product or service.
Fonofale	A Pan-Pacific model of health which, uses the Samoan *fale* (house) as a metaphor for health.
Talanoa	Talanoa, a Pacific research method is a holistic approach to engaging with participants. Talanoa draws upon cultural, spiritual and informal connection made between the researcher and participants.

(Appendix 1)

AUTEC Secretariat

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3 May 2017

Maggie Buxton
Faculty of Design and Creative Technologies

Dear Maggie

Re Ethics Application: **17/74 Digital Talanoa; exploring the use of 360 video in promoting mental health awareness for young Pasifika adults**

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 3 May 2020.

Standard Conditions of Approval

1. A progress report is due annually on the anniversary of the approval date, using form EA2, which is available online through http://www.aut.ac.nz/researchethics.
2. A final report is due at the expiration of the approval period, or, upon completion of project, using form EA3, which is available online through http://www.aut.ac.nz/researchethics.
3. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form: http://www.aut.ac.nz/researchethics.
4. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
5. 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.

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

AUTEC grants ethical approval only. If you require management approval for access for your research from another institution or organisation then you are responsible for obtaining it. If the research is undertaken outside New Zealand, you need to meet all locality legal and ethical obligations and requirements.

For any enquiries, please contact ethics@aut.ac.nz

Yours sincerely,

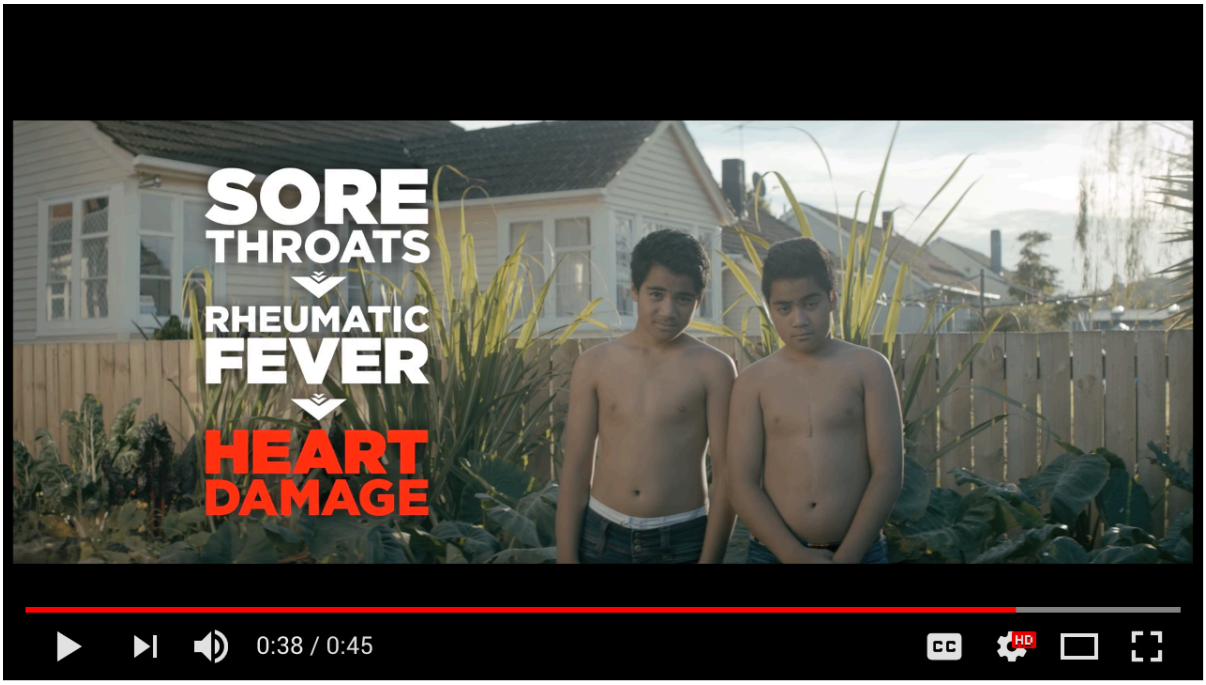
Kate O'Connor
Executive Manager
Auckland University of Technology Ethics Committee

Cc: ncp2332@aut.ac.nz; Laurent Antonczak

(Appendix 2)

Appropriate language/Imagery	In particular, in Pacific context being at church and rugby and those types of experiences, yeah really culturally appropriate (Rheumatic fever ad)	it relative to the community that it's illness is dominating in, at this stage Pasifika and Maori so that's why I like the brown faces and the approach and the use of the language. That's our language, that's how we use our language (Rheumatic fever ad)	having those faces, of those particular people whether it be sports stars movie stars coming in and honing in those messages, could if kids are seeing "oh it's really important to them" or families are seeing "wow I've just been told by "or even if someone like Tofiga and how he he's such a crack up they're driving those messages too, it would matter a bit more to me.	done in the language that can also Bridge to the consumer as well from young kids to yeah to families and parents yeah that was done quite well	A lot the pasifika youth that I'm dealing with or working with they're coming from other angles so yes their parents want them to be highly educated, they feel a pressure they feel there be carrying the weight of the whole whanau on their back and so you know they might not be drinking alcohol or doing drugs but that kind of weight can put the same contribute to unwellness as well some youth who say they have to go to church even though they don't want to be there and that's not that's nothing new but like I was saying those small things can contribute to the unwellness of our kids	My concern is that he's sort of the face of depression advocacy and if you're for example rangatahi Maori 17-18 I don't think you're going to be able to locate yourself in JK's experience.	
Working together	thing I like about it is the aspect of being part of the solution so contact us at... means that ok I'm not just going to watch something then forget about it I'm actually going to have be able to follow it through and go to to the next level of it	I like about it is the aspect of being part of the solution so contact us at... means that ok I'm not just going to watch something then forget about it I'm actually going to have be able to follow it through and go to to the next level of it	and the thing that is like kind of cool that I'm seeing and movies now they're trying to mimic the games in terms of first person so like a lot of scenes in movies say for instance in action seen the camera angle switches from being a third third person that looks at you or someone telling a story that gets put into the scene themselves so the camera shot from the point of view angle that maybe in addition to help	I also think that we need to look at ways we like health information can be co-created in a sense where like it doesn't come at you with some predetermined information but somehow the health information provides an opening with the consumer to engage of them where they're at and then build information off that space when they're engaged rather than rather me come in with my depression or information	I really enjoyed those things we like you have options and choices to reverse a few things that this is it and move to this page or some of that virtually something that I think also it has to the health information has to try and speak and name what is already on people's Minds so that you create an opening like oh yeah I was feeling	Um so that's around cultural connection so for us as Maori bring them on marae sit down with them have korero, talanoa have a kai together and build relationships listen to what they're saying and if there's a possibility we we can put into action but really if there's an issue like suicide allow youth to be part of the solution for fixing it rather than stand back and say will fix you's	you know stuff on social media you know there's some really really negative stuff that our youth getting involved with so there has to be a balance
Strengths based	'm not effective by mental health myself I wouldn't say "oh it's all about crazy people" it really for me he's advertising how to be well and how wellness affects everybody differently	but in fact it's really connected to so many other things and mental health as the outcome of an accumulation of things so for youth mental health it's actually about having really good positive relationships and a strong foundation from home and a strong environment around you	I think that was was like a tool or way to be able to navigate yourself through a difficult time of depression or anxiety and it was almost like an analogy or metaphor that it was using in relation to the visuals of rugby and coaching and performing in and some of those bridge to his message about what how that can relate to being able to have a way through depression	I think it's more about promoting in a positive way and so we Doctors Service here at the marae now and that's really been about our whanau coming to the marae and saying I have to wait 3 hours to be seen by a doctor so so what the marae has decided that we're hearing what you're saying so let's bring the service to youth	for one, showing his vulnerability, you know he's a superstar and so seeing that just means that, that's the realness of this illness it attacks everybody	A lot of influence, even media influences a lot of that around sports and how alcohol is one of the biggest, we were just talking about the other day how young people follow these sports stars in all they see around them the alcohol signs and banners	it's encouraging it's aspirational in terms of " If he can share I can share it" and so you know it comes out
Identity	where we are losing kind of I guess indigenous ancient and sacred kind of knowledge is and practices around Rites of initiation Rites of Passage community understanding ourselves as whole beings with missing that and it's getting eroded so it's getting less and less acknowledged and being dominated by another kind of the system it's taking us often different places	the other biggest mental health challenge that I think you for facing is the their perception and the narrative that they telling them self like that's becoming real clear for me and those things are on my girls self harming boys fighting drugs and alcohol those are bizarre symptoms of these things around self-confidence	tailored to the individual so like how could there be like a universal device or universal image or not cause I know that's big is big but as possible yeah they can they can do that and engage I think that might be a bit more meaningful and I'll I know also learn more about myself through it because it's me or tell be tailored to me	A lot of them don't have a cultural component to the mahi that they do it's all really about meeting quotas and ratios and demographics so the services that we engage with here through the marae through Te Amiorangi they all have to be a cultural in tune	t's all really about the deeper sense of identifying our it's called self determination but we call it tino rangatira	I think that we need to have more connection with whanau	
Awareness/understanding/Empathy	I like about it is the aspect of being part of the solution so contact us at... means that ok I'm not just going to watch something then forget about it I'm actually going to have be able to follow it through and go to to the next level of it	your body we don't learn so like one way that like so even with me in my car for example I don't really know much about cars because I haven't really been put up with around cars in like around men that a fixing cars and that's ok only take my car to get fixed once it not working or moving but actually if I learn how to maintain my car then like I would or maybe I wouldn't need to have service anyway	things like that but if somehow we were able to cultivate value and life and being alive then there is more likelihood of people wanting to look after that like that we have so however we can change and promote that as a value that would help people access health services as well.	Understanding what mental health is, so automatically people's minds goes to someone who's 'mental' so you say the word mental and already triggers off images of like people out of it people that a bit looney, loopy, schizophrenic, bipolar, angry but the biggest things the biggest challenges that I think is what inhibiting youth mental health is this eroding sense of identity and purpose	I guess like something that can just in general I feel like it gives more opportunity to experience the message rather than receiving the message so for example with the animal one the immersed live ur into the environment of the animal more fully		
Advocacy	I think the health system should be more about creating health so and in saying that there will be people that need some kind of help you know there will be people that get sick and that but I mean from like a more broad and maybe a philosophical level but health the health system should be it'll be doing its job of promoting healthy lifestyle and behaviours and that kind of thing	I like about it is the aspect of being part of the solution so contact us at... means that ok I'm not just going to watch something then forget about it I'm actually going to have be able to follow it through and go to to the next level of it	it's encouraging it's aspirational in terms of " If he can share I can share it" and so you know it comes out				
Aesthetics/Suggestions	like I think I would have to be motivated to turn the page and that motivation would come from something if I've already got a problem with my eyes enough I would most likely otherwise I'll probably be scrolling my phone instead	if it could provide the Consumer and experience of losing this site so that it gives me more of a transformational experience of the message rather than just an informative experience of the message which usually just kind of sits on the surface for people and then would drop away so if there was some way whether that I don't know when I think of like losing sight or sharpness	technology that provides narrative to maybe each body part so you're you're learning about what eyes or what lungs or actually what what where asthma impacts	I mean like we could play safe and just talk about like how would make the video better but like at the end of the day also like it's not it's not the most effective way to get the outcome of trying to like a reduce rheumatic fever or get people to follow up on signs more and if we if that's like our stated intention then like we need to be real with that rather than keeping on pushing the the apple cart which may not do that	and the thing that is like kind of cool that I'm seeing and movies now they're trying to mimic the games in terms of first person so like a lot of scenes in movies say for instance in action seen the camera angle switches from being a third third person that looks at you or someone telling a story that gets put into the scene themselves so the camera shot from the point of view angle that maybe in addition to help	I think we really need to push the envelope to really make a difference.	360 by being able to move camera bring stuff view and the person into the message and a narrative you can kinda Immerse yourself and rather than being remote viewing which is an innovation, yeah that is pretty cool

(Appendix 3)



Video example 1: Rheumatic fever[16]

Video example 2: Mental health advocacy[17]

[16] Please refer to https://goo.gl/RQa2TB
[17] Please refer to https://goo.gl/NwPYUP

(Appendix 3a)

What can you do to prevent pressure injuries?

If you are in bed

- Change your position every two to three hours, moving between your back and sides
- Use pillows to stop knees and ankles touching each other, particularly when you are lying on your side
- Try to avoid creases in the bed linen
- If sitting up in bed, be aware that sliding down the bed can cause a pressure injury to your bottom and heels
- Ask for assistance if required.

If you are in a wheelchair

- Relieve pressure by leaning forward, or leaning side to side for a few minutes every half hour.

What else can you do to help?

- Eat a healthy diet and drink plenty fluids
- Keep your skin clean and dry
- Ask your nurse to help you with any incontinence.

Your Nurse, Occupational Therapist, Physiotherapist, Doctor or Dietitian can help you plan your care to prevent a pressure injury

Pressure injuries can sometimes occur even if everything is being done to prevent them.

Please talk to your nurse if you require more information.

We are here to help you

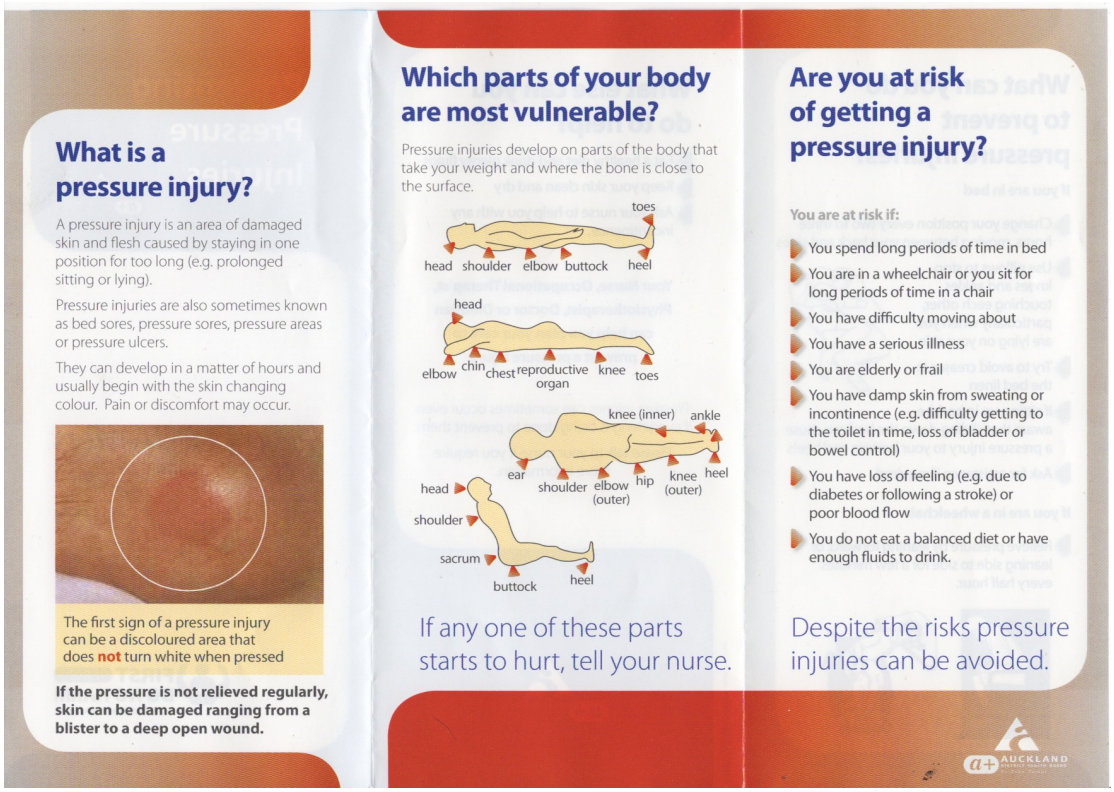
AUCKLAND

Preventing Pressure Injuries

AUCKLAND

Skin Care Matters

FIRST safer care together
DO NO HARM
www.firstdonoharm.org.nz



What is a pressure injury?

A pressure injury is an area of damaged skin and flesh caused by staying in one position for too long (e.g. prolonged sitting or lying).

Pressure injuries are also sometimes known as bed sores, pressure sores, pressure areas or pressure ulcers.

They can develop in a matter of hours and usually begin with the skin changing colour. Pain or discomfort may occur.

The first sign of a pressure injury can be a discoloured area that does **not** turn white when pressed

If the pressure is not relieved regularly, skin can be damaged ranging from a blister to a deep open wound.

Which parts of your body are most vulnerable?

Pressure injuries develop on parts of the body that take your weight and where the bone is close to the surface.

toes, head, shoulder, elbow, buttock, heel

head, elbow, chin, chest, reproductive organ, knee, toes

knee (inner), ankle, ear, shoulder, elbow (outer), hip, knee (outer), heel, head, shoulder, sacrum, buttock, heel

If any one of these parts starts to hurt, tell your nurse.

Are you at risk of getting a pressure injury?

You are at risk if:

- You spend long periods of time in bed
- You are in a wheelchair or you sit for long periods of time in a chair
- You have difficulty moving about
- You have a serious illness
- You are elderly or frail
- You have damp skin from sweating or incontinence (e.g. difficulty getting to the toilet in time, loss of bladder or bowel control)
- You have loss of feeling (e.g. due to diabetes or following a stroke) or poor blood flow
- You do not eat a balanced diet or have enough fluids to drink.

Despite the risks pressure injuries can be avoided.

AUCKLAND

(Appendix 3b)

Whilst you are in hospital:

All patients are asked if they smoke by all doctors, nurses, and allied health staff as part of their assessments. They all want you to have the best health possible. They will also offer you help and support to stop smoking.

Take Advantage of this situation.

Sure you are unwell because you have come into a hospital and we all want you to get better quickly.

There is an opportunity right now for good support. Ask your nurse to contact us and if you have a mobile phone we can talk with you

Contact Us:

ADHB 2025 SMOKEFREE

External:
0800 667833
and leave a message

Email:
Smokefree@adhb.govt.nz

You can also phone
Procare
0800 500 601
The Fono
837 1780

Ask your nurse or doctor to make a referral to us.

You can stop;
Give it a go;
We can help you.

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

2 Park Road, Grafton, Auckland 1142

Quit B4 it's lit

Smoke Free
Breathe Free

What's all the fuss about stopping smoking?

"Routinely inhaling smoke from burning tobacco leaves puts lethal gas and toxic products in the blood. It causes premature aging, numerous cancers, and blocked arteries by clotted blood."

The best thing you can do for your health is stop smoking

AUCKLAND DISTRICT HEALTH BOARD Te Toka Tumai

Healthy communities | World-class healthcare | Achieved together
Kia kotahi te Oranga mo te iwi me te Rahi o Te Ao

"4 out of 5 smokers wish they had never started smoking."

Get motivated:

Stop the cough?
Easier to breathe?
Please the kids?
Save money?

Focused on these to help you succeed.

Break the Addiction:

A smoker likes smoking and do not like stopping.

Why? *Because the addiction to nicotine drives cravings – none when the level is high, mad cravings when low!*

So keep the level up with nicotine patches, gum, or lozenges.

Change the habits:

You know how certain things make you want to smoke, like stress at work, drinking a cup of coffee or even just watching the game with friends? These are all trigger times – moments or situations that stimulate the desire to smoke. Get to know them, list them and minimise them.

Gain Support:

Now is the time to take up an offer of support to quit. Your nurse, doctor, physiotherapist, dietician, pharmacist and many other health professionals can help you. Just ask and they will contact Smokefree services to help you.

"1 in 5 smokers will try to quit every year."

The Smoke

Cigarette smoke from burning tobacco leaves and paper contains many toxic chemicals in the gases that make up the smoke. When they cool down in the mouth, throat, and lungs they become tar.

Because smoke inhalation over time causes ill health and sickness ADHB's hospitals and clinics are full of people just like you who are thinking about quitting. About 900 patients who are current smokers pass through our facilities each month.

Nicotine

Nicotine changes the chemistry in your brain, so it's harder to stop smoking. If you've struggled with stopping smoking, **it's not you – it's the addictive nature of a cigarette containing nicotine.**

One way of fooling the brain into not craving to smoke is to put "clean" nicotine into the bloodstream in the form of nicotine patches, lozenges, gum, nicotine inhalators, and nicotine oral spray.

They all work if used appropriately.

What is in a cigarette?

Cigarette
Thousands of harmful chemicals. + Nicotine

VS

Patches Lozenges Gum
No harmful chemicals + Clean Nicotine

Types of Support:

Phone:
Quitline: 0800 778 778

Online:
Quit Blog – take a dip in the quitting river.

Text:
Quit Text - 3 months of supportive text messages.

One on One support:
Community Cessation Providers:
See "Quit Now" Brochure.

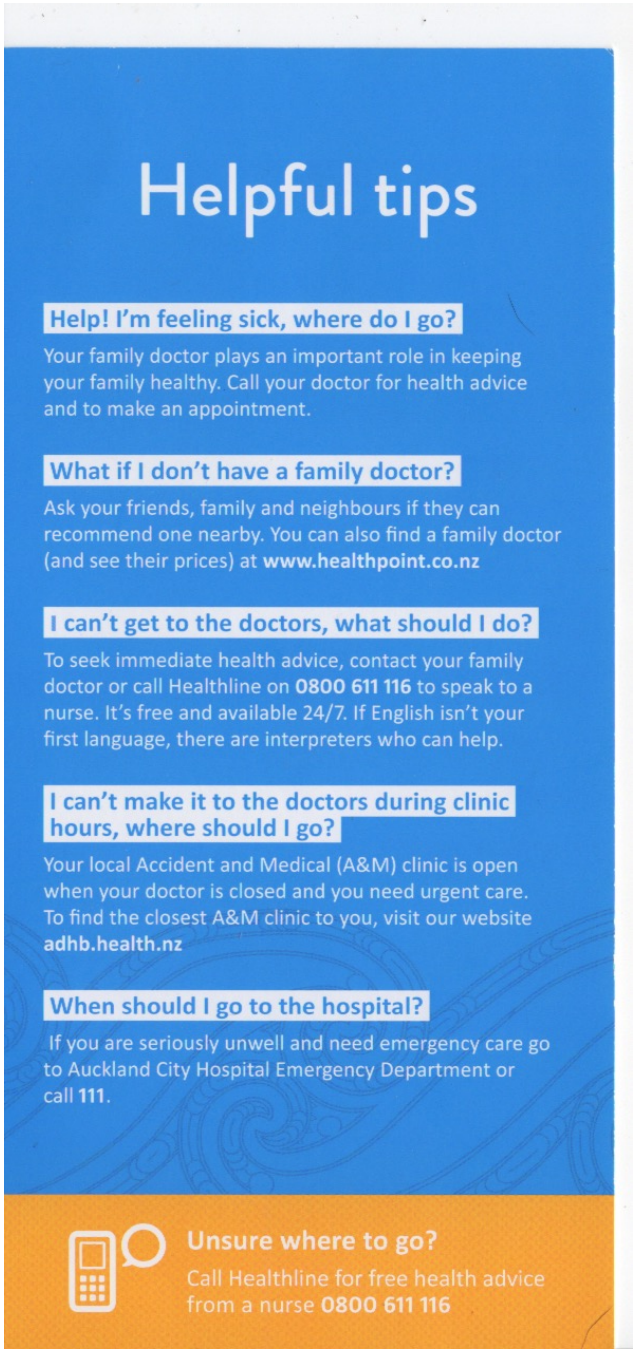
Community Quit Groups:
Quitting smoking can be difficult especially if you try to go it alone. No one understands this more than other people who are going through it as well. That's why quitting in a group is so successful and that's why ADHB Smokefree runs community quit groups.

Lots of smokers try to go it alone but support from friends and family can also increase your chances of quitting. The more support you get the more likely you are to stay quit.

Get your nurse to refer you to us and we'll add you to one of our community stop smoking groups.

FREEDOM

(Appendix 3c)



Helpful tips

Help! I'm feeling sick, where do I go?

Your family doctor plays an important role in keeping your family healthy. Call your doctor for health advice and to make an appointment.

What if I don't have a family doctor?

Ask your friends, family and neighbours if they can recommend one nearby. You can also find a family doctor (and see their prices) at **www.healthpoint.co.nz**

I can't get to the doctors, what should I do?

To seek immediate health advice, contact your family doctor or call Healthline on **0800 611 116** to speak to a nurse. It's free and available 24/7. If English isn't your first language, there are interpreters who can help.

I can't make it to the doctors during clinic hours, where should I go?

Your local Accident and Medical (A&M) clinic is open when your doctor is closed and you need urgent care. To find the closest A&M clinic to you, visit our website **adhb.health.nz**

When should I go to the hospital?

If you are seriously unwell and need emergency care go to Auckland City Hospital Emergency Department or call **111**.

Unsure where to go?

Call Healthline for free health advice from a nurse **0800 611 116**

The right care for you

Keep well for you, your whānau and for your community

AUCKLAND DISTRICT HEALTH BOARD
Te Toka Tumai

Get help from the right place

Take care of you and your whānau by knowing where to get help when you're feeling sick or injured.

Family doctor

See your family doctor for all non-urgent health concerns.

- Long term illnesses
- Pain management
- Stubborn cold and cough

Healthline

Call 0800 611 116 for free health advice from a nurse.

- Available 24 hours, 7 days a week
- Interpreters available
- Health advice from a nurse

Accident and Medical (A&M)

If your family doctor is not available, go to your nearest A&M clinic.

- Eye injuries
- Mild asthma
- Sports injury
- Minor illness

Hospital

If it's a life threatening emergency call 111.

- Chest pain
- Head injury
- Severe blood lost
- Major accident

Know where to go: **adhb.health.nz**

Healthy communities – World-class healthcare – Achieved together
Kia kotahi te oranga mo te iti me te rahi o te hāpori

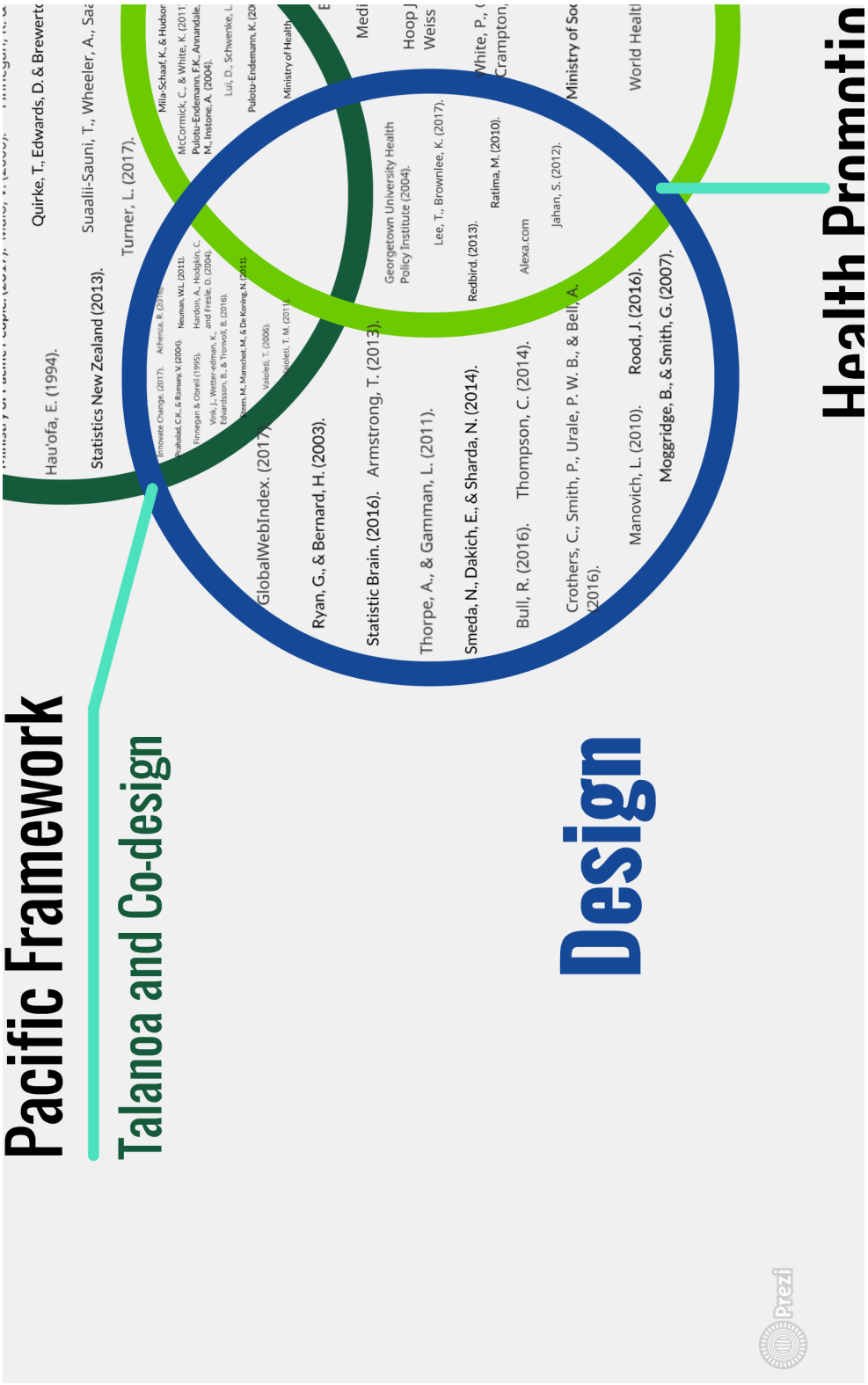
(Appendix 4)


Pacific Community
Pacific
Fairbairn-Dunlop, P., Nanai, J., & Ahio, L. (2014).
Paterson, J., Iusitini, L., Tautolo, E.-S., Taylor, S. and Clougherty, J. (2017).
Anae, M., Coxon, E., Mara, D., Wendt-Samu, T., & Finau, C. (2001).
Gegeo, D. W., & Watson-Gegeo, K. A. (2002).
Ministry of Pacific People. (2017).
Malo, V. (2000).
Finnegan, R. & Orbell, M.
Hau'ofa, E. (1994).
Quirke, T., Edwards, D. & Brewerton, M. (2011).
Statistics New Zealand (2013).
Suaalii-Sauni, T., Wheeler, A., Saafi, E. (2009).
Turner, L. (2017).
Mila-Schaaf, K., & Hudson, M. (2009).
McCormick, C., & White, K. (2011).
Pulotu-Endemann, F.K., Annandale, M., Instone, A. (2004).
Lui, D., Schwenke, L. (2003).
Pulotu-Endemann, K. (2009).
Ministry of Health
Ministry of Health. (2000).
Brazier, C. (2017).
Gary, F. (2005).
Medical Council of New Zealand. (2010).
Georgetown University Health Policy Institute (2004).
GlobalWebIndex. (2017).
Ryan, G., & Bernard, H. (2003).
Statistic Brain. (2016).
Armstrong, T. (2013).
Prezi

(Appendix 4a)


Pacific Mental Heal
Health
Finau, C. (2001).
Gegeo, D. W., & Watson-Gegeo, K. A. (2002).
Ministry of Pacific People. (2017).
Malo, V. (2000).
Finnegan, R. & Orbell, M.
Quirke, T., Edwards, D. & Brewerton, M. (2011).
Hau'ofa, E. (1994).
Statistics New Zealand (2013).
Suaalii-Sauni, T., Wheeler, A., Saafi, E. (2009).
Turner, L. (2017).
Ministry of Health. (2000).
Brazier, C. (2017).
Gary, F. (2005).
Medical Council of New Zealand. (2010).
Hoop J.G., DiPasquale T., Hernandez, J. M. & Weiss Roberts, L. (2008)
White, P., Gunston, J., Salmond, C., Atkinson, J. & Crampton, P.
Ministry of Health (2016).
Ministry of Social Development. (2016).
World Health Organisation. (2017).
Rood, J. (2016).
Moggridge, B., & Smith, G. (2007).
Georgetown University Health Policy Institute (2004).
Lee, T., Brownlee, K. (2017).
Redbird. (2013).
Ratima, M. (2010).
Alexa.com
Jahan, S. (2012).
Prezi

(Appendix 4b)


Pacific Framework
Talanoa and Co-design
Design
Health Promotion
Hau'ofa, E. (1994).
Quirke, T., Edwards, D. & Brewerto
Statistics New Zealand (2013).
Suaalii-Sauni, T., Wheeler, A., Saa
Turner, L. (2017).
Mila-Schaaf, K., & Hudson
McCormick, C., & White, K. (2011
Pulotu-Endemann, FK., Annandale,
M., Instone, A. (2004).
Lui, D., Schwenke, L.
Pulotu-Endemann, K. (20
Ministry of Health
GlobalWebIndex. (2017).
Ryan, G., & Bernard, H. (2003).
Statistic Brain. (2016).
Armstrong, T. (2013).
Georgetown University Health
Policy Institute (2004).
Lee, T., Brownlee, K. (2017).
Redbird. (2013).
Ratima, M. (2010).
Alexa.com
Jahan, S. (2012).
Ministry of Soc
Thorpe, A., & Gamman, L. (2011).
Smeda, N., Dakich, E., & Sharda, N. (2014).
Bull, R. (2016).
Thompson, C. (2014).
Crothers, C., Smith, P., Urale, P. W. B., & Bell, A. (2016).
Manovich, L. (2010).
Rood, J. (2016).
Moggridge, B., & Smith, G. (2007).
World Healt
Prezi

References

Achenza, R. (2016). *UX Co-Design Process.* Retrieved from: https://www.linkedin.com/pulse/ux-co-design-process-roberto-achenza

Alexa.com. (2017). *Alexa Top 500 Global Sites*. [online] Available at: https://www.alexa.com/topsites [Accessed 12 Sep. 2017].

Anae, M., Coxon, E., Mara, D., Wendt-Samu, T., & Finau, C. (2001). *Pasifika education research guidelines*. Wellington [N.Z.]: Ministry of Education.

Armstrong, T. (2013). *7 Great Strength-Based Universal Design for Learning Apps for Students with Special Needs.* Retrieved from Armstrong, T. and Armstrong, T. (2017). *7 Great Strength-Based Universal Design for Learning Apps for Students with Special Needs | Thomas Armstrong, Ph.D*. [online] Institute4learning.com. Retrieved from: http://www.institute4learning.com/2013/02/18/7-great-strength-based-udl-apps-for-students-with-special-needs-2/

Brazier, C. (2017). *Building the future: children and the sustainable development goals in rich countries*. Florence, Italy: UNICEF Office of Research - Innocenti.

Bull, R. (2016). *The Pros and Cons of Interactive Content.* Retrieved from https://www.hallaminternet.com/pros-cons-interactive-content/

Crothers, C., Smith, P., Urale, P. W. B., & Bell, A. (2016). The Internet in New Zealand 2015. Auckland, New Zealand: Institute of Culture, Discourse & Communication, Auckland University of Technology.

Fairbairn-Dunlop, P., Nanai, J., & Ahio, L. (2014). Pacific research. In V. Wright-St. Clair, D. A. Reid, S. Shaw, & J. Ramsbotham (Eds.), *Evidence-based health practice* (pp.77-93). Victoria, Australia: Oxford University Press.

Finnegan, R. & Orbell, M. (1995). *South Pacific oral traditions*. Bloomington: Indiana University Press.

Gary, F. (2005). Stigma: Barrier to Mental Health Care Among Ethnic Minorities. Issues in Mental Health Nursing, 26, 979-999.

Gegeo, D. W., & Watson-Gegeo, K. A. (2002). Whose Knowledge? Epistemological Collisions in Solomon Islands Community Development. *The Contemporary Pacific*, 14(2), 377–409. https://doi.org/10.1353/cp.2002.0046

Georgetown University Health Policy Institute (2004). *Cultural Competence in Health Care: Is it important for people with chronic conditions?*. *Hpi.georgetown.edu*. Retrieved 11 December 2017, from https://hpi.georgetown.edu/agingsociety/pubhtml/cultural/cultural.html

GlobalWebIndex. (2017). *GWI Social GlobalWebIndex's flagship report on the latest trends in social media*. Retrieved 11 December 2017, from https://insight.globalwebindex.net/hubfs/GWI%20Social%20Summary%20Q3%202017.pdf?t=1512989817609

Hardon, A., Hodgkin, C. and Fresle, D. (2004). *How to investigate the use of medicines by consumers*. [Geneva]: World Health Organization.

Hau'ofa, E. (1994). Our Sea of Islands. *The Contemporary Pacific, 6*(1), 148-161. Retrieved from https://scholarspace.manoa.hawaii.edu/bitstream/10125/12960/1/v6n1-148-161-dialogue.pdf.

Innovate Change. (2017). *Peer Crowd Service Engagement.* Retrieved from https://www.innovatechange.co.nz/Peer%20crowd%20service%20engagement.pdf

Jahan, S. (2012). Health Promotion: Opportunities and Challenge. *Journal of Biosafety & Health Education,* 1(2), doi:10.4172/jbhe.1000e105

Hoop J.G., DiPasquale T., Hernandez, J. M. & Weiss Roberts, L. (2008). Ethics and Culture in Mental Health Care, Ethics & Behavior, 18:4, 353-372, DOI: 10.1080/10508420701713048

Lee, T., Brownlee, K. (2017). *Building Culturally Competent Organizations.* Retrieved from http://ctb.ku.edu/en/table-of-contents/culture/cultural-competence/culturally-competent-organizations/main

Lui, D., Schwenke, L. (2003). *Soul Searching.* A paper presented at the 13th Annual TheMHS Conference, Canberra, Australia August 2003.

Malo, V. (2000). *Pacific people in New Zealand talk about their experiences with mental illness*. Wellington, N.Z: Mental Health Commission.

Manovich, L. (2010). *The language of new media*. Cambridge, Mass.: MIT Press.

McCormick, C., & White, K. (2011). *Folklore*. Santa Barbara, Calif.: ABC-CLIO.

Medical Council of New Zealand. (2010). *Best health outcomes for Pacific Peoples*: Practice implications. Retrieved 11 December 2017, from https://www.mcnz.org.nz/assets/News-and-Publications/Statements/Best-health-outcomes-for-Pacific-Peoples.pdf

Mila-Schaaf, K., & Hudson, M. (2009). *Pacific Health Dialog, 15*(1), 113-119. Retrieved from https://www.tepou.co.nz/uploads/files/resource-assets/the-interface-between-cultural-understandings-negotiating-new-spaces-for-pacific-mental-health.pdf

Ministry of Health. (2017). *Health Literacy.* Retrieved 1 November 2017, from https://www.health.govt.nz/our-work/making-services-better-users/health-literacy (p.1).

Ministry of Health. (2000). *The New Zealand health strategy*. Wellington, N.Z: Ministry of Health.

Ministry of Health (2016). *New Zealand health strategy*. Wellington, New Zealand: Ministry of Health.

Ministry of Pacific People. (2017). *Pacific People in NZ | Ministry for Pacific Peoples*. [online] Available at: http://www.mpp.govt.nz/pacific-people-in-nz

Ministry of Social Development. (2016). *The Social Report 2016: Te pūrongo oranga tangata*. Retrieved from http://socialreport.msd.govt.nz/social-connectedness/telephone-and-internet-access-in-the-household.html

Moggridge, B., & Smith, G. (2007). *Designing interactions*. Cambridge, Mass: MIT Press.

Neuman, W.L. (2011). Social Research Methods: Qualitative and Quantitative Approaches, (Seventh Edition ed.) Boston, MA, United States of America: Pearson.

New Zealand Health Strategy. (2016). Wellington, New Zealand: Ministry of Health.

Paterson, J., Iusitini, L., Tautolo, E.-S., Taylor, S. and Clougherty, J. (2017). Pacific Islands Families (PIF) Study: housing and psychological distress among Pacific mothers. Australian and New Zealand Journal of Public Health. doi:10.1111/1753-6405.12717

Pulotu-Endemann, F.K., Annandale, M., Instone, A. (2004). *A Pacific Perspective on the New Zealand Mental Health Classification and Outcomes Study (CAOS): Discussion paper.* Wellington: Mental Health Commission.

Pulotu-Endemann, K. (2009). *Fonofale Model of Health*. Hauora.co.nz. Retrieved from http://www.hauora.co.nz/resources/Fonofalemodelexplanation.pdf

Prahalad, C.K., & Ramsey, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing, 18(3), 15-14*. Doi: 10.1002/dir.20015

Quirke, T., Edwards, D. & Brewerton, M. (2011). *Health and Pacific peoples in New Zealand : Pacific progress*. Wellington, N.Z: Statistics New Zealand Ministry of Pacific Island Affairs.

Ratima, M. (2010). *Māori health promotion*: A comprehensive definition and strategic considerations. Retrieved from http://www.hauora.co.nz/assets/files/Maori/Strategic%20Issues%20in%20Maori%20Health%20Promotion%20-%20Ratima%202010.pdf

Radio New Zealand. (2016). *Advice versus culture - the Pasifika mental health battle*. [online] Available at: http://www.radionz.co.nz/international/pacific-news/318125/advice-versus-culture-the-pasifika-mental-health-battle [Accessed 10 Dec. 2017].

Redbird. (2013). *Health Promotion & Digital Channels: A New Framework for Successful Health Promotion Campaigns*. Retrieved from http://Health Promotion & Digital Channels: A New Framework for Successful Health Promotion Campaigns

Rood, J. (2016). *The new buzz word 'Virtual Reality'*. *Complete IT*. Retrieved 1 December 2017, from https://www.complete-it.co.uk/the-new-buzz-word-virtual-reality/

Ryan, G., & Bernard, H. (2003). Techniques to Identify Themes. *Field Methods*, *15*(1), 85-109. http://dx.doi.org/10.1177/1525822x02239569

Smeda, N., Dakich, E., & Sharda, N. (2014). The effectiveness of digital storytelling in the classrooms: a comprehensive study. Smart Learning Environments, 1(1). https://doi.org/10.1186/s40561-014-0006-3

Statistic Brain. (2016). *Attention Span Statistics - Statistic Brain*. [online] Available at: https://www.statisticbrain.com/attention-span-statistics/ [Accessed 10 Nov. 2017].

Statistics New Zealand (2013). *2013 Census Quickstats*. Retrieved from http://archive.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-income/personal-income-ethnic.aspx?url=/Census/2013-census/profile-and-summary-reports/quickstats-income/personal-income-ethnic.aspx

Steen, M., Manschot, M., & De Koning, N. (2011). Benefits of co-design in service design projects.*International Journal of Design, 5*(2), 53-60.

Suaalii-Sauni, T., Wheeler, A., Saafi, E. (2009). Exploration of Pacific perspectives of Pacific models of mental service delivery in New Zealand. Pacific Health Dialog 15: 18-27. Google Scholar, Medline

Thompson, C. (2014). *The Importance of the Internet*. *BORGEN*. Retrieved 11 December 2017, from http://www.borgenmagazine.com/importance-internet/

Thorpe, A., & Gamman, L. (2011). Design with society: why socially responsive design is good enough. *Codesign*, *7*(3-4), 217-230. http://dx.doi.org/10.1080/15710882.2011.630477

Turner, L. (2017). *Religious Beliefs of Pacific Islanders*. Retrieved 11 December 2017, from https://classroom.synonym.com/religious-beliefs-of-pacific-islanders-12086858.html

Vaioleti, T. (2006). Talanoa research methodology: A developing position on Pacific research. Waikato Journal of Education, University of Waikato, 12(1), 23-31.

Vaioleti, T. M. (2011). Talanoa, Manulua, Founga Ako: frameworks for using enduring Tonga education concepts for education in Aotearoa, New Zealand, Unpublished PhD Thesis, The University of Waikato, Hamilton, New Zealand.

Vink, J., Wetter-edman, K., Edvardsson, B., & Tronvoll, B. (2016). Understanding the Influence of the Co-Design Process on Well-Being. In ServDes 2016. Fifth Service Design and Innovation Conference.

Webb-Binder, B. (2009). Pacific Identity through Space and Time in Lily Laita's Va i Ta. In The Space Between: Negotiating Culture, Place, and Identity in the Pacific, edited by A. Marata Tamaira, 25-34. Occasional Paper Series 44. Honolulu, Hawai'i: Center for Pacific Islands Studies, School of Pacific and Asian Studies, University of Hawai'i at Mānoa. P.27

White, P., Gunston, J., Salmond, C., Atkinson, J. & Crampton, P. (2008). *Atlas of Socioeconomic Deprivation in New Zealand NZDep2006*. Wellington: Ministry of Health.

World Health Organisation. (2017). Health Promotion: Health literacy and health behaviour. Retrieved from: http://www.who.int/healthpromotion/conferences/7gchp/track2/en/