**NAVIGATING HEALTH PRACTICES FOR I-KIRIBATI
IMMIGRANTS IN NEW ZEALAND**

BY

TERAMIRA CHRISTINE SCHÜTZ

A thesis

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ABSTRACT

There is a rapidly growing number of I-Kiribati migrating to New Zealand and the New Zealand health care system must be prepared for this growth. There is a prospect of total migration of I-Kiribati to host countries like New Zealand due to climate change making the Kiribati islands uninhabitable. However, there are no studies examining the health beliefs and practices of I-Kiribati in New Zealand.

This study sought to understand the health practices of I-Kiribati immigrants in New Zealand using a Kiribati cultural research framework that I developed, called *te kora*, modelled on the Kiribati cultural practice of making *te kora*: a Kiribati string made from two soft dried coconut husk fibres called *binoka*. I recruited thirty first generation I-Kiribati from the lower North Island and throughout the South Island of New Zealand through the *anoiko maroro* recruitment process, an approach suited to the Kiribati culture and etiquette that is similar to the concept of snowballing; in this case using a *maroro* (discussion) as the method and *karaki* (stories) as the data. The participants' *karaki* were audio-recorded, translated into English, and a copy of the summary of the transcript was sent to each individual participant for verification. Subsequent *maroro* were organised as required. Thematic analysis was used to analyse the participants' *karaki* but within that framework viewing one *binoka* as the Kiribati health practice and the other *binoka* as the western health approach.

Six key organising ideas emerged from the participants' *karaki*: 1) health and illness perceptions; 2) the value of traditional practices; 3) traditional health practices; 4) foods and their products; 5) beauty and wellness; and 6) the use of a western health approach. This study revealed that I-Kiribati traditionally maintained their health heritage, and persistently practise their traditional health practices of maintaining their *mauri* (health). However, at the same time participants accommodated a variety of different health practices including western, Māori, and 'other Pacific' health practices.

From the study, *Te kuan model of te mauri* for I-Kiribati immigrants in New Zealand emerged. This is a model that transfers health beliefs and

practices from Kiribati into a New Zealand context. *Te kuan model of te Mauri* explains how I-Kiribati navigate between health practices to establish the balance between empirical-cultural knowledge, lived experiences and available resources to meet their physical, mental, spiritual, social, environmental, and cultural needs, and how their health practices are implemented in the New Zealand context. *Te Kuan Model of Te Mauri* can also contribute to making sense of how I-Kiribati practise health in other host countries. This model acknowledges Kiribati traditional health beliefs and practices, improves Kiribati cultural understanding, cultural sensitivity, and cultural protection among health professionals, and at the same time may contribute to improving access to western health care services for I-Kiribati in New Zealand. Future interventions to benefit the health systems of New Zealand, other host countries and other immigrant populations must take into consideration *Te Kuan Model of Te Mauri*.

Key words: Kiribati, “Pacific people”, Micronesia, Polynesia, Melanesia, “traditional healing”, “access to health care”, “New Zealand”, immigrants, migration, “climate change”, “pluralistic illness”, “cultural health approach”, “illness perceptions”, “health-worldview”, “health-models”.

TE KARIO MAN TE KAKAE AIO – POEM FROM THIS RESEARCH

Written by Teramira Christine Schütz

Te Kuan Model of Te Mauri,

My comfy nest,

I see myself, in the new host country,

being exposed to binoka of diaspora.

I identify myself as Pacific, but a fraction of the minority.

Being parted from my native soil,

the confusion, the challenges, the excitement, beyond and abroad.

I wonder, I tangle, I spin, the phenomenal binoka

to create my own.

the magnificence of Aotearoa New Zealand,

the eloquent I-Kiribati migrants on the land of the long white cloud.

I bargain, I negotiate, I integrate, I reconstruct, I interweave fashionably,

the amazement of the multi-cultural society, the advanced health systems,

the incredible, the western, the 'other' Pacific, the mauri ora, *te mauri*,

I interlace, I mesh, I criss-cross, I fabricate familiar health practices,

in attempt to balance my identity, my *mauri*,

for my *kaainga*, in Aotearoa New Zealand

I build *Te Kuan Model of Te Mauri*,

my comfy nest.

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LIST OF KIRIBATI WORDS AND ENGLISH TRANSLATION

Kiribati words	Meaning in English
Aibong	A female spirit of the northern horizon.
Ainen te kaainga	A woman (or women) of the house or family.
Amakai	A nearly ripe coconut when the kernel is nearly hard, and the coconut's water is acidic.
Anai maraki	Absorption of pain.
Aneane	Climbing a coconut tree to pick and drop fresh green coconuts to the ground.
Aomata	A person or people.
Aoraki	When an individual is not in a state of good health and wellness or being sick or unwell.
Arira	Means to tighten
Bain te roo	Things of the darkness, usually related to sorcery, shamanism and supernatural powers.
Bangota	A sacred shrine
Bangotan te utu	A sacred burial plot for the ancestors of the <i>utu</i> that is placed in the <i>kaainga</i> .
Batua	Is the head or leader of the <i>kaainga</i> and is usually the eldest male of the <i>kaainga</i>
Bau	A vow or it can also be referred to as a wreath
Bauarira	To unite to tighten the bonds through practicing a cultural tabu practice or through binding by oath to complete a task, for example building the village meeting house (maneaba). When bauarira is applied to research, it means to tighten the bonds of unity, connectedness, and accountability between the researcher and the participants.
Benu	The dried coconut husks that have been soaked in the sea for months.
Binoka	About 6-10 coconut fibres or (Koran) rolled and twisted using index fingers.
Bobinoka	The process of rolling and twisting about 6-10 coconut fibres (koran) using index fingers and then thumping the fibres on the thigh to make the binoka.
Bonobono	To block or frustrate evil spirits that might cause illness.
Boutoka	Bou means post and toka means victory, boutoka means 'a post or posts to lead on to support you to stand and move to reach victory'.

Boutokaan te mweranoi	A Kiribati framework which translates as supporting the welfare, health and wellbeing of a family or community
Buniia	Green coconuts with sweet coconut husk juice that can be chewed like sugar cane.
Bwabwai	A giant taro root, main carbohydrate food in Kiribati.
Bwai	Thing(s).
Bwain te roo, same as 'bain te roo'	Things of darkness
Bwaka ni buua	Sore throat.
Bwaoki	Smallpox
Bwatata	Chickenpox
E bae bungim	When labour is prolonged and difficult.
E bwakee ana kai	The uterus is displaced or positioned outside its uterus cavity.
Ibonga	A sorcerer or an I-Kiribati who has supernatural powers to perform sorcery.
Iein	Marriage or a male and female living together as husband and wife or as partners.
I-Kiribati	The indigenous people of Kiribati.
I-Matang	A white European person who comes from Matang or a European country to live or has inhabited Kiribati.
Iokinibwai	To barter or exchange goods or ideas with someone.
Kabuebuen te nano	Internal fever, or a fever thought to originate from within the inner body
Kabutiman	A man's family asking a woman's parents or grandparents for their daughter's or grand-daughter's hand in marriage to their son or grandson.
Kabwaraa / Kabwaranakoa	Untie or unknot; ritual unravelling of abdomen pain to release the spell that causes the abdominal pain.
Kainga or Baronga	Family.
Kakano	To spin or twist two binoka between the arm and thigh to make te kora.
Kam bati n rabwa	Thank you very much (to two or more people).
Kam rabwa	Thank you (to two or more people).
Kamokoaki	To make the person inhale a medication using an inhaler or nebulizer to treat asthma.

Kanangaraoi	To receive good fortune
Kaomataaki	Kao means invite and aomata means people, kaomataaki means to confirm or to make certain of the invitation through a face-to-face conversation.
Karabwarabwa	To thank or be thankful.
Karabwarabwa	To thank a person or people; to be thankful.
Karaki	Story
Karewe	The sweet juice from the coconut sap known as toddy which is rich in vitamins.
Kario	Originally written.
Kateboaki	A sitz bath massage is performed on the woman.
Katekateka	The ritual practice of preparing a girl for womanhood during the three consecutive days of the first menstrual period.
Katekeraoi	To bestow upon a person good luck, to wish a person well so that the person is always in a state of good health.
Katioa	When a traditional birth attendant gently massages a pregnant woman's abdomen to move the foetus for general health of the foetus, or to reposition the foetus to avoid a breech presentation.
Kaunaki	When a boy is being trained into a protector of his family or a warrior
Ko bati n rabwa	Thank you very much (to one person).
Kora	See te kora.
Ko rabwa	Thank you (to one person)
Koo nanona	When a girl undergoes traditional rituals and learns certain practices during puberty in preparation for the role of womanhood and upon completion of the teiao rituals, the young woman should now attend to and accomplished her domestic duties as a woman of the house.
Koromrom	Husking the coconuts and sorting the husks that are appropriate for making of te benu.
Kotokoto	This literally means 'to keep pointing at'. In the context of pain relief, kotokoto means the application of a light, sudden touch of ember made of heated wick onto the painful part of the body.
Maamaara	When a person is acutely unwell, more serious illness or acute phase of illness (Kiribati-English Online Dictionary, 1978).
Mamin te ben	The first superficial sweet, grated kernel of the fresh coconut

Maneaba	The local Kiribati big meeting house.
Maroro	To converse or discuss with another person or a group of people.
Marurung	A Kiribati word that refers to a person's state of wellness, being in a healthy state and physically and mentally alert and active.
Matang	A European country
Mauri	Hello, or saluting or acknowledging a person's good health.
Moimoto	Young green coconut water
Nanona	From within the inner body.
Nibwarabwara	A small woven basket made from coconut leaves used as a plate.
Non	Morinda citrifolia plant.
Riring	To massage.
Rorobuaka	A youthful capable bodied man or men
Taan tobi	More than one traditional birth attendant.
Taawaan te benu	Drying of soaked coconuts husks under the sun.
Taberanikai	Local plants' young leaves used for remedies.
Tabu	A cultural forbidden practice.
Tabunea	Magical supernatural enchanting skills.
Tabutabu	Faithful to the existence of several forbidden Kiribati traditional practices.
Tae ibennao	To cleanse the body from harmful causes of illnesses.
Tae-benu	Taking te benu out of the retting pit.
Takataka	Copra or dry coconut kernel.
Tamau	Father, or dad.
Tao benu	Soaking of green coconut husks in a pond, lagoon or ocean.
Tao kora	To make string.
Tao-benu:	Retting te benu in seawater for a month or two.
Tarakai	To inspect the family's woodland property and search for coconut trees, orchard or other plants grown in the land that are suitable for food, drink, local medicines, or building local houses or canoes.
Te	The
Te ing	A porous fibre netting envelope found at the base of the coconut leaf
Te kai	Acute stiff neck pain

Te kaiwa	The act of telling a fortune teller a problem or identifying a suitable native traditional healer, or when the fortune teller (ibonga) finds who and what causes the person's illness.
Te karinerine	Respect
Te katei	Culture specific to I-Kiribati
Te katio	The pregnancy massage
Te kauti n tebotebo	Early morning shower with the early morning fetching of water from the well
Te kawai	This is categorised in three forms: tae-ibennao (to cleanse the body from harmful causes of illnesses); bonobono (to block or frustrate evil spirits that might cause illness); and 14errani-raoi (to receive good fortune).
Te kora	Local Kiribati string made from the benu.
Te koran	A single coconut fibre
Te Kuan	Hand-crafted net made from te kora and a pemphis ring used both for fishing (sinker net) and for food storage.
Te kuau	Black-spotted rock erranidae cod fish.
Te mao	Scaevola sericea shrub.
Te mauri, te raoi ao te tabomoa	Health, peace, and prosperity.
Te roki ni kako	The local house or hut secured with blinds.
Te ruonako	Prolapse in vulva
Te teke	Chest pain when breathing, a pleuritic type of pain
Te tia tobi	A traditional birth attendant.
Te toronibwai	Obtaining I-Kiribati distinct survival life and related self-reliance skills to live well.
Te wau or te wawi	A sorcery or spell performed by a sorcerer.
Te wau or wawi or tabunea	Casting a spell or sorcery; performed by a sorcerer.
Te wii boi or te wii raa	Oral thrush
Tebotebo	To wash your body with water from a bucket or tub and shower water onto the body using hands or a container.
Teiao	The first time a girl has her period or menstruation.
Tibutaua	Feeling full or swollen.
Tinau	Mother or mum

Tintin	To cook fish or breadfruit on an open fire.
Tiri-benu	Cleaning te benu by beating it and drying it for a few days to get rid of the moisture.
Tokabwebwere	To be joyful, be in prosperity, satisfied and gratified.
Torobia	To massage gently.
Touaki	The application of a traditional compression of sponge by foot to the perineum to alleviate pain after delivery.
Tubatu	The application of warm compression using medicinal plants wrapped in a piece of cloth.
Ukaki	To blow away with air from the mouth.
Ukia	To blow
Unimwane	Respectable elderly man / men
Unimwanen te kawa	Respectable elderly village man / men

OTHER TERMS (NON-I-KIRIBATI WORDS)

Fa'afetai tele lava	Thank you very much in the Samoan language
Fa'asamoa	The Samoan way of life
Fale	Samoa house
Kafa	The Tongan string, made from coconut fibres.
Kakala	The process of weaving the Tongan garland.
Kawakawa.	The Māori traditional plant used as a traditional healing remedy for cough.
Kava	Piper methysticum plant extract commonly used as a drink in ceremonial rituals, is classified as a beverage.
Luva	The gifting of the kakala to a special person at a special function
Malo aupito	Thank you in the Tongan language.
Meitaki ma'ata	Thank you very much in the Cook Islands language.
Rongoa	Māori traditional medicine that includes herbal remedies, physical massage, and spiritual healing
Talanoa	In Fijian, Tongan and Samoan, talanoa means to converse, to discuss or tell stories. Talanoa is an approach used to connect with Pacific communities.

	Talanoa is a Pacific research methodology developed from a Tongan perspective by Timote Vaoleti.
Toli	The selection of specific fragrant flowers, Tongan language.
Tui	Weave, in Samoan language.
Tui	The arrangement and weaving of flowers.

LIST OF ABBREVIATIONS

ABCFM	American Board of Commissioners for Foreign Missions
GP	General Practitioner
KSIC	Kiribati South Island Community
KMCC	Kiribati Mormon Church Community
PAC	Pacific Access Category
KSDACC	Kiribati Seventh Day Adventist Church Community
TBA	Traditional Birth Attendant
TCM	Traditional Chinese Medicine
WKC	Wellington Kiribati Club
WKCC	Wellington Kiribati Catholic Community
WKUCC	Wellington Kiribati Uniting Church Community

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CHAPTER ONE: INTRODUCTION

To be able to provide culturally competent care to people from diverse backgrounds, you must be sensitive to culturally diverse needs, characteristics and values of individuals, families and groups (Dempsey, Hillege & Hill, 2014 p.96).

1.1 OVERVIEW OF THE STUDY

In this thesis, I will present a study that explored the health beliefs and health practices of I-Kiribati¹ who migrated to New Zealand. This is an important subject because this immigrant population is steadily growing and because, most importantly, there is a prospect of total migration as a result of climate change in these low-lying islands of the Republic of Kiribati. Understanding how these immigrants incorporate their traditional health practices and beliefs in their host country is important for their integration and wellbeing. Nurses and other health professionals need to be sensitive to diverse cultural needs and values of an individual, families and communities (Dempsey et al., 2014), and to ensure that they provide holistic health care services that are culturally safe (Parisa et al., 2016). As newly Pacific migrants to New Zealand and coupled with the dearth of knowledge about I-Kiribati indigenous health perspectives and practices, this thesis is therefore significant to fill in the knowledge gap and to inform nurses and other health professionals' practices.

1.1.1 MY PERSONAL MOTIVATION FOR THE STUDY

As an I-Kiribati nurse immigrant participating within my Kiribati communities in Aotearoa New Zealand, I have seen many instances where I-Kiribati must navigate between their Kiribati traditional health practices and those of western health approaches to manage their health and illness.

¹ The prefix "I" added to the word "Kiribati" signifies a person from Kiribati.

They faced dilemmas in accessing their preferred health approach[es] and making decisions and informed choices about managing their health. Some I-Kiribati immigrants have struggled to find what health approach was best for them, while others chose one health approach over the other to manage their health. I have also encountered some I-Kiribati immigrants seeking clarification and advice regarding their illness, diagnostic tests, medications, or medical terminologies. I have also witnessed other I-Kiribati immigrants who sought help from an I-Kiribati traditional healer in New Zealand while some returned to Kiribati to access their traditional local remedies and traditional healing methods to manage their illness or utilised western medicine together with their traditional healing practices, but most of the time, they did not reveal to the health professionals that they have also used their traditional health practices. These observations tell me that I-Kiribati navigate between health practices, but what is not explicit is when they make decisions to access their preferred health practices and what factors motivate their decisions. I-Kiribati immigrants may reconcile or negotiate their traditional health practices, but they face difficulties in making decisions on what health approaches are best for them to manage their health, wellness, and illness, and when they do need to access health services.

In New Zealand, I have also learned from within my Kiribati community network instances when I-Kiribati chose to utilise their traditional health practices, and therefore presented to the hospital for treatment late for western treatment because their Kiribati traditional method did not help to alleviate the symptoms. One example is that of an older I-Kiribati immigrant who woke up with weakness on one side of her body affecting her mobility. She chose to stay in bed and rest while her husband used traditional massage on her whole body to help with her blood circulation and to relieve her symptoms. It was only after she failed to improve that they called a registered nurse for advice. As her signs were suggestive of a stroke, the nurse recommended her immediate transfer to the Emergency Department after which she was admitted to the hospital for treatment and management

of stroke. This was an example of delaying care when urgent hospital care was required as per stroke guidelines.

Based on anecdotes, I-Kiribati are in favour of using their traditional health practices to treat their ailments because they are familiar with their own traditional healing methods. They also believe that these health practices were proven to be effective throughout their generations. For some I-Kiribati families, traditional practices are ways of reconnecting to their ancestors to protect their family members from illnesses and harm, and also to maintain their wellness (Uriam, 2017). These traditional practices will be further discussed in the literature review. Like the Māori, the indigenous people of Aotearoa, who treated their traditional healing practices of *Rongoa* Māori as a *taonga* that must be protected and safeguarded (Ahuriri-Driscoll & Boulton, 2019), I-Kiribati also treated traditional healing practices as ancestral possessions that must be kept within the family line and must be preserved as part of their family cultural heritage.

On the other hand, there are examples of I-Kiribati immigrants implementing traditional health practices and achieving excellent outcomes. Prior to conducting this study, I learned the following from a newly arrived I-Kiribati immigrant couple in New Zealand expecting a child. The midwife they saw informed them that the woman must be admitted to the hospital for the management of a breech pregnancy, and a subsequent caesarean section. In their minds, the couple refused this approach, but did not speak up. It was unclear why the couple did not discuss the matter with their midwife that they preferred an uncomplicated normal vaginal birthing procedure instead of a caesarean section. The couple also wanted to use their Kiribati traditional pregnancy massage in attempting to reposition the foetus (unborn offspring) so that the caesarean section could be avoided. Instead, they insisted on weekend leave which was granted but with strict instructions to immediately return to the hospital if she was in labour or had other foetal complications. She was also given instructions on abdominal exercises by her midwife to assist the foetus reposition itself. However, the pregnant woman stated she did not do these exercises because it made her

uncomfortable. During the weekend, they visited a Kiribati traditional birth attendant, who used traditional Kiribati pregnancy abdominal massage to reposition the foetus. In this case, whilst the I-Kiribati couple accessed western midwifery services, they also secretly utilised their traditional healer to perform the traditional pregnancy massage in attempt to avoid the caesarean section procedure. The couple were silent about their access to their traditional healer and therefore did not reveal this to the midwife and the medical team, as they were not sure if accessing both their traditional healer and the western midwifery services was allowed.

On return to the hospital after the weekend and after series of traditional pregnancy massages, the caesarean section was cancelled after the doctors and midwives confirmed a scan result that the foetus was turning to a cephalic or normal birthing position. This highlights examples of the challenges I-Kiribati immigrants may face to give voice to their health choices but are secretive about integrating both their traditional and western health practices. Custom dictates that I-Kiribati must be respectful to senior members of their family, and one way of demonstrating that respect is for younger people to be silent and to obey what they are being told to do by respected seniors of the family or village. Being respectful and obedient can be manifested by being silent (*aki kakarongoa*), and shy (*mama*) for I-Kiribati and therefore unable to voice their concerns, and these were reported in recent studies on I-Kiribati migrants in New Zealand (Namoori-Sinclair, 2020; Thompson, 2016). The couple who preferred to have pregnancy massage obviously were silent about their concerns of not wanting to go through the cesarean section, and they might not have the courage to speak up and voice their concerns, and their health choices. The couple also might not feel safe in a dominated western health care system to voice their choice to access their traditional healer and as well as to access the midwifery care services. These cultural concerns were also reflected in this observation.

As newly Pacific immigrants of New Zealand, I-Kiribati may find the New Zealand health system dominated by western worldviews and practices, and that there is a lack of flexibility within the western health

system to be inclusive of their Kiribati traditional health practices. I-Kiribati may find it hard to understand the western health interventions because there is no coordination and integration of western health practices and I-Kiribati traditional practices, and most health professionals are not aware of the Kiribati cultural perceptions and practices. I-Kiribati therefore tend to access their own Kiribati family traditional healing methods as their first line of treatment instead of accessing their midwife or general practitioner. Or, as in the second example above, may not feel safe telling their health care professionals that they want to continue to use their traditional practices.

At the same time, I-Kiribati immigrants may no longer be able to access their preferred Kiribati health practices because their traditional healers or their medicinal plants and remedies are not available in New Zealand. I have also observed that I-Kiribati immigrants found it difficult to express themselves when seeking medical help as English is their second language, to negotiate, integrate, or complement their traditional health practices, cultural values, and health worldviews to the western health approaches to manage their health and illnesses in New Zealand.

There may also be opportunities for I-Kiribati to re-invent or reconstruct their traditional health practices to the resources and medicinal plants they could find in New Zealand, or to negotiate with health professionals of the western health system to integrate or complement their traditional health practices to manage their health and illnesses in a culturally and holistic approach in New Zealand.

These anecdotes and observations within my Kiribati community in New Zealand have motivated me to undertake a more in-depth enquiry in order to understand I-Kiribati health perceptions, their health practices, how they navigate between their traditional and western health practices to manage their health and illness, and the factors that influence their decision-making when accessing their preferred health system to manage their health and illness in New Zealand.

1.1.2 SIGNIFICANCE OF THE STUDY

This research strives to fill in knowledge gaps about I-Kiribati health practices and identify future interventions and health models to help the New Zealand health system respond to the needs of the I-Kiribati immigrant population in New Zealand. The impact of global warming and the rise in sea levels affecting the low lying islands of Kiribati which are about four to eight metres above sea level (Biribo & Woodroffe, 2013), potentially could lead to a prospect of total migration of I-Kiribati to host countries. This research also sought to understand possible threats to the delivery of care to I-Kiribati who may be relocated in other host countries as a result of this potential total migration.

In the paragraphs which follow, to set the scene, I will first introduce Kiribati, the participants' country of origin, its society and culture, and secondly, I will describe I-Kiribati immigrants' demographic and health status in their host country of New Zealand.

1.2 KIRIBATI, THE COUNTRY OF ORIGIN, ITS SOCIETY AND CULTURE: OVERVIEW OF THE COUNTRY OF KIRIBATI

Kiribati, formerly known as the Gilbert Islands, is classified as a Micronesian country, and made up of 33 low-lying coral atoll islands which straddle the equator and are located north of New Zealand. These 33 islands are dispersed across the 3.5 million square kilometers of the central Pacific Ocean, with a total land area of 849 square kilometres (Pacific Community and United Nation Children's Funds-UNICEF, 2021) . These 33 islands are divided into four main groups: the Kiribati Islands, the Phoenix Islands, the Line Islands and Banaba Island, 23 of which are inhabited (Briney, 2020; Governance, 2019). Most of these islands are only four to eight metres above sea level and are therefore vulnerable to sea erosion, (Biribo & Woodroffe, 2013) and the effects of climate change (Barnett & McMichael, 2018; Fröhlich & Klepp, 2018). Among the 23 inhabited islands of Kiribati is Banaba, formally known as Ocean Island. This is the only naturally elevated coral island in Kiribati with the highest

point of about 87 metres above sea level. (Figure 1.1 shows the map of the Republic of Kiribati). Banaba used to possess rich phosphate minerals but was subjected to phosphate mining by the British Phosphate Company (BPC) between 1908 and 1979 (Shlomowitz & Munro, 1992), and became the center of attraction for international and national migration in those years. Kiribati was under the British protectorate but became independent from the British colony and became the Republic of Kiribati in 1979 (Bouma & Uriam, 2015; McArthur et al., 2018).

Figure 1.2: Map of Kiribati, constructed using GIS Map retrieved from Data<https://geodata.nzdf.mil.nz/data/global/oceania/kiribati/>

1.2.1 I-KIRIBATI DEMOGRAPHIC PROFILE AND HEALTH STATUS IN KIRIBATI

The Republic of Kiribati has shown a steady increase of its population over the last five decades. According to the Worldometer (2019), the population of Kiribati in the year 1960 was only 40,204. However, by 1990, its population had increased to 70,853. In the year 2010, the Kiribati population had further increased to 100,930 (Worldometer, 2019). According to the Pacific Community and United Nations Children's Funds (2021) report, it was expected that the 2020 midyear population of Kiribati

would reach 118,700 with a yearly growth rate of 1.7%. According to the Worldometer (2019), of the total Kiribati population, 57% live in the capital island of South Tarawa while the rest of the population live in other remote islands of Kiribati, Phoenix, Lines and Banaba islands. This indicates that South Tarawa, the capital island of Kiribati was and is currently densely populated compared to the outer rural islands.

The census of Kiribati shows a youthful median age group of 23.0 years. The average life expectancy in Kiribati for both male and female at birth is 69.2 years; 73.1 years for females and 65.0 years for males (Worldometer, 2019). The increase in interest for I-Kiribati to move from rural remote islands to the capital island of South Tarawa is primarily based on more opportunities for getting employment from the government and other big companies. Furthermore, there are more secondary schools in South Tarawa compared to the other outer islands, and as well as the availability of tertiary education. Thus, this urbanization movement causes South Tarawa to be densely populated than other rural islands of the Republic of Kiribati.

This dramatic increase in the influx of internal migration from rural islands to the urban area of the capital island overwhelms and overburdens the health infrastructure, and health professionals have been faced with high staffing workloads to meet the health needs of I-Kiribati in Kiribati (UNICEF, 2009). In general, the following health priorities have been reported: stroke, diabetes mellitus, lower respiratory conditions, endocrine disorders, tuberculosis, diarrheal diseases, low birth weight, asthma, liver disease and hypertension (Ministry of Health and Medical Services, 2012).

In response to the health needs of the Kiribati population, the government of Kiribati continuously provides an accessible free health care service, more proactive community outreach programmes, improved immunisation coverage among children, and improved maternal health care services that involve the training of the local traditional birth attendants to avoid any maternal or neonatal complications. Initiatives have been underscored in attempts to integrate a more culturally maternal-child health system and measures to improve water and sanitation (UNICEF, 2009).

However, I-Kiribati are still faced with health challenges in Kiribati due to poor health infrastructure, financial constraints, remotely scattered geographical settings and the lack of health staff to maintain consistent safe health programmes.

The next section provides an overview of the Kiribati social and leadership systems, and this will be followed by selected significant I-Kiribati traditional practices and the ways in which I-Kiribati maintain their *mauri* (health and wellbeing), *marurung* (wellness) and how they traditionally manage their *aoraki* (illness[es]) in Kiribati. These I-Kiribati traditional practices were reflective of my experience as an indigenous I-Kiribati who was born and raised in Kiribati, my nursing experience working with my Kiribati community in Kiribati, and my informal *maroro* (conversations or discussion) between myself and my family members and my Kiribati community in both Kiribati and New Zealand.

1.2.2 KIRIBATI KAAINGA, LEADERSHIP AND SOCIAL SYSTEM

Kiribati used to have its own *kaainga*, leadership and social system which still exists today. The Kiribati societal system is made up of several *kaainga* within an island. A *kaainga*, can be understood as a huge piece of land that was conquered by the family ancestor and became the property of that ancestor's extended family. A *kaainga* can also refer to several related nuclear families that form an extended family known as the *utu* who all share a common ancestor who conquered that piece of land (Tito, Tiata, Teanako, Fakafo & Tautua, 1979). Several of the *utu* live closely but in different local houses in the *kaainga*. According to Uriam (2017), the "kaainga is the original dwelling site of the ancestors of an *utu* on an island" (page 10), where the ancestors of the family first settled and were buried. Uriam (2017) further describes the *kaainga* as a sacred place for the *utu* and is regarded as "bangotan te *utu* or the shrine of the *utu*" (Uriam, 2017, p. 12). The *bangotan te utu* is a sacred burial plot for the ancestors of the *utu* that is placed in the *kaainga*. By virtue of the sacredness of the *kaainga*, the *utu* living in the *kaainga* should respect the land particularly the burial plot of their ancestors, and all members of the *utu* should embrace the *utu* with respect, love and persevere to protect one another, and to make sure

the *utu* is healthy, safe and well. The *kaainga* should be regarded as a place for any member of the *utu* to return to for comfort and security. For example, when a married daughter has problems in her marriage or with members of her husband's *kaainga*, she could return to seek comfort and protection in her own ancestral *kaainga*.

Customarily the oldest great grandfather or in some cases, the oldest great great grandfather of the *kaainga*, is the head of the *kaainga* who is given the title of the *batua* (Tito et al. 1979). The *batua* has huge responsibilities as a leader and a protector of the *kaainga* ensuring that each *utu* within the *kaainga* is in a state of *mauri* or good health and *marurung* meaning wellness and is free from any *aoraki* or illness. Each of the *utu* within the *kaainga* is important in that they form the basis of the cultural context of health beliefs and practices (Finau et al., 2004). Although the *batua* is the general leader of the *kaainga*, mothers of the *kaainga* are at the forefront in providing practical skills of nurturing members of the *utu*, so that they are all in a state of *mauri*, *marurung* and free or protected from any *aoraki*.

It is common that the *batua* passes his traditional skills and knowledge to a son who is the next in line for the position of the *batua* and the wife of the *batua* passes her skills and knowledge to her daughters or nieces. These traditional health beliefs and practices were also passed down from their ancestors from generation to the next generation through oral and/or practical skills within each individual *kaainga*. The examples of these Kiribati traditional health practices range from the care of fertility and pregnancy to childbirth; the care of infants; child wellness; puberty; the care of elderly people; and the care of the dying. In the next paragraphs, I will describe in detail the cultural *tabu*, beliefs and processes of these Kiribati indigenous practices.

1.2.3 TRADITIONAL PRACTICES DURING PUBERTY

I-Kiribati also have special cultural practices to nurture puberty in girls and boys, not only to make sure that the children grow wise, industrious, and are well-liked by the community, but to maintain their health and wellbeing. In girls, the first menses or *teiao* is significant in the Kiribati

tradition. During the first three days of the *teiao*, the girl must stay at home sitting in a quiet special hut or room with either her paternal or maternal grandmother to perform a special task that must be completed within three consecutive days during the *teiao*. These tasks range from making the *kora* including *te bobinoka*, *te kakano*, to weaving a basket from pandanus leaves, making a head wreath of fresh flowers, crocheting, or sewing clothes. This is the moment when grandmothers strengthen the bonds between the grandmother and grand-daughter through an informal *maroro* (discussion) and the teaching or passing on the skills both verbal and practical from the grandmother to the grand-daughter. The process is called the *katekateka*.

There are also *tabu* practices that the girl needs to undergo while performing a task during the *katekateka* for three consecutive days. For example, she is not allowed to be seen by any others of her age group or other family members, or to converse with anyone else. The girl needs to be quiet, concentrate on her given task, and is also not encouraged to talk about other things, except when she needs to ask questions to her grandmother about the task she is given to complete during the *katekateka*. The grandmother will be with the girl for these three consecutive days teaching her the role of a woman and the skills of the given task, and she will be the only person conversing with the girl explaining what the girl needs to do. The girl is allowed to have a few minutes' break from the task during the *katekateka*, and this is when she may need to go to the toilet, but she must continuously carry on the task for three consecutive days. The girl must also have an early night's sleep and must wake up early at dawn the next day to continue with her task. Traditionally, the girl is also not allowed to have a bath for those three consecutive days and lots of oil will be put on her skin. I learned from my late mother that the reason for the belief around not having a bath during the three days of the *teiao*, was that during the *teiao*, a woman's body pores are open, and having a bath would allow water to move into the woman's body and this could cause backpain. My late mother practiced this belief and to my amazement, not a single time did she complain of back pain, even if she sat all day weaving or sewing. During

the *katekateka*, the girl must wear a local belt made up of the porous fibre netting envelope found at the base of the coconut leaf, (*te ing*) around her abdomen for three consecutive days. This practice builds the girl's energy and strength, so she is satisfied and can manage with a small amount of special food and drinks she is given for each of the three consecutive days, as well as to flatten her tummy.

In terms of the girl's meals, customarily the girl would be given a small amount of water to drink and a few pieces of dry coconut (*takataka*) to eat. In the ancient days prior to Kiribati colonisation by Christianity, all of these *tabu* practices for the *teiao* involve the *tabunea* engaging with the ancestors to bestow power, courage and beauty on the girl so that the girl would be highly distinguished in her age group, famous, successful, industrious, well known and to be extolled and admired by all. Traditionally after the three days of the *katekateka*, a communal feast celebration was held to mark this young woman's womanhood. This is when the young woman could now eat without any food and drink restrictions.

Similarly, at a young age, I also learned from my late mother that the rationales behind the *katekateka* cultural practice were three-fold; first the girl was introduced to the duties of an I-Kiribati woman, second, the cultural practice of eating just the *takataka* and water during the *teiao*, disciplined the girl not to eat much, but to be satisfied with what small food and drink she was given, in Kiribati we say *e koo nanona*, 'e' refers to the girl, 'koo' means tight and 'nanona' means from the inner body or from inside the body, and thirdly so the young woman would be well prepared prior to her duties as a wife. According to Uriam (2017 page 10), *te roki ni kako* is a local house or hut secured with blinds so no one can see through, where a young woman during *te teiao* would be "taught the proper conduct and duties of a young woman". *Te roki ni kako* is used for a young girl who would remain in there to undergo a beautifying process before the *kabutiman*, where a young woman would be covered with coconut oil for improvement of her skin and beauty (Uriam, 2017). Traditionally, the beautifying process involved spiritual processes of *kanangaraoi*, in this case, a spiritual magical enchantment that would make the woman in the

roki ni ka-koo to be considered more favourable than any other young women in the village. However, the *kanangaraoi* is no longer practiced among those who have adopted the Christian faith (M. Ratieta, personal communication 29 January 2018).

With regard to boys, by tradition, when they reach puberty, they are trained to assist their paternal parents but at the same time are trained in the skill of dancing, learning the art of composing chants when fishing, building a canoe, and the skills of daggering, lancing, throwing-sticks, building houses (Grimble, 1921) and cutting toddy to name but a few life skills. In the past these skills were always accomplished with the aid of magic or rituals. The paternal or maternal grandparents played a major role in developing their grandsons' skills and competency in Kiribati life skills until the time when he was ready for marriage and to provide for and protect his family. Between 20 and 25 years old, the male is now considered ready to receive the *te kana-ni-mwane* or *the diet of the full grown man* (Grimble, 1921, p. 38). The physical muscularity of a young man after puberty is important as this tells another different level of the young man's capability and strengths to look after his future family. This is often highlighted and acknowledged by the young man's future parents-in-law.

Post Christianity and Western colonialism, male circumcision where the foreskin was removed, became one of the cultural practices in Kiribati, requiring young boys to be circumcised usually between the ages of 7 to 15 years, not only to mark their puberty stage, but also to celebrate their manhood. According to anthropologists, the practice of circumcision among the Polynesians and the people of the Pacific islands was suggestive of "a test of bravery and endurance, a ritual mutilation, a sacrificial spilling of blood..." (Doyle, 2005, p. 284). The practice of male circumcision has always been part of the western health services which doctors and nurses perform as a sterile surgical procedure.

While these Kiribati traditional practices to mark and celebrate puberty are unique in their own right and may not be seen as health-related practices, indeed, these practices are important because they discipline young I-Kiribati people to be wise, independent, cautious of their beauty and

wellbeing, and are early trained as leaders of their future family and community.

1.2.4 TRADITIONS OF ENGAGEMENT, MARRIAGE AND ROLES OF HUSBAND AND WIFE

Usually, the *kabutiman* occurs first prior to marriage. *Kabutiman* is when a man's family traditionally approach the woman's family and ask for their daughter's hand in marriage (*te iein*) to their son or grandson. According to Autio, (2010), the traditional Kiribati custom is hard, "e matoa te katei" meaning the culture is tough. Customarily, young women "are expected to retain their virginity until marriage" (Autio, 2010, p. 19), and therefore, they must restrict social involvement with the community to avoid any social interactive intimacy that might cause elopement or result in an improper marriage custom (Talu et al., 1984).

Married women typically must live with the husband in his *kaainga* where she is expected to perform the life-skills she has been taught from her own *kaainga* (Talu et al., 1984) such as Kiribati traditional life skills like cooking, making the *kora*, weaving mats, cleaning the *kaainga*, cultivating crops and caring for her husband, children and the entire *kaainga*. These are challenging customs, and the wife is expected to be skillful in these life skills and to contribute to the health and wellbeing of those in her husband's *kaainga*, whilst also being expected to adjust and comply with the routine cultural practices of her husband's *kaainga*. It is not culturally appropriate for a couple to live at the wife's *kaainga* (Uriam, 2017). This practice has been discussed by a number of authors in the literature, for example Autio, (2010) described, "e tarabuaka n te katei" (Autio, 2010, p. 132) which was communicated by one local I-Kiribati woman in Kiribati. The wife must stay with her husband's parents when is away (Autio, 2010) and must be accompanied by one of her husband's relatives when she visits her *kaainga* or attend any other community functions. Traditional arranged marriage by the parents of both the bride and groom to be was also a cultural practice that must be fulfilled by both the bride and groom even if this arrangement was against their will (Bataua & Mason, 1985).

1.2.5 TRADITIONS IN FERTILITY, PREGNANCY, CHILDBIRTH, AND POST BIRTH

In reference to fertility, pregnancy, childbirth, and after birth, culturally, it is important for an I-Kiribati couple to abide by the *tabu* practices of their lands and their ancestors and respect their senior members of their family to make sure that they do not have a fertility problem. In the ancient days, when a woman was pregnant, her pregnancy was kept top-secret for fear of those who might perform sorcery (*te wawi*) causing the death of the mother and child (Grimble, 1921; Maude, 1989; Uriam, 2017). According to Tito et al (1985), they claimed that I-Kiribati believed a pregnant woman must be confined to the house and not wander around in the bush to protect herself and her unborn baby from the wandering evil spirits who might claim the child, and thus lead to miscarriages or stillbirth.

Another tradition still practised today by I-Kiribati is traditional birthing. Prior to the arrival of the western medicine approach, usually a locally trained traditional birth attendant (TBA) or *te tia tobi* performed the delivery of a baby. My late maternal grandmother was a well-known successful TBA. She passed on her knowledge and skills to two of her daughters, her daughters then passed the TBA knowledge and skills to their daughters, who are now both currently actively practising as TBAs.

While writing my thesis, I observed the care of pregnant mothers and their newborn babies within my Kiribati community in New Zealand. During one of the Kiribati communities' functions, I had casual conversations at different times with a few of the pregnant mothers and their families here in New Zealand. To my amazement, they still talk about their fear of walking about particularly during their first trimester, fearing that this might have an effect on the pregnant woman and the unborn child. If, in the event that the delivery was likely to be prolonged and/or very painful, they suggested they should find someone who could perform the incantation (*tabunea*) to release the tensions and spells that might have made the delivery very difficult.

There was another occasion when an I-Kiribati mother whose infant was unwell expressed her fear that this might have been a consequence of

not complying with *tabu* practices. This *tabu* practice concerned not walking about with her baby at night. In the Kiribati culture, traditionally after birth, the new born infant would remain in the house for three days to complete the traditional indoor time with spirits where the infant would be appeased with spells by a female spirit of the northern horizon called Nei Aibong (Maude, 1989). Normally the pregnant woman and her husband would move from the husband's *kaainga* to stay with her parents during the woman's last trimester until after the delivery. The couple's house would then be looked after by the husband's extended family within his *kaainga*. This is important as after delivery the woman would need help from her mother to do all the housework whilst her daughter could focus on her recovery after the birth. The infant would then be taken to the house of the father where the infant mats and coverings were changed and he/she was welcomed by the family with dances and chants of rituals to cleanse and keep the infant from any supernatural causes of illness (Maude, 1989). The transfer of the newborn from the birthplace to the father's *utu* and *kaainga* must be done during the day and before dark to keep both the infant and the mother safe and *mauri*. Culturally, in the event that the couple have to travel at night with their baby, and this must be done for a genuine reason such as when the baby is unwell and the parents needed to see a traditional healer to perform a traditional healing for the baby, the parents must take the young *non* (*morinda citrifolia*) leaves and put it behind one of the baby's ears. This is a cultural practice of protecting the baby from the wandering evil spirits at night, who could possibly later make the baby sick.

1.2.6 CHRISTIAN COLONIALISATION AND I-KIRIBATI SPIRITUAL BELIEFS

Colonisation of Kiribati by Christians has been reported to have influenced I-Kiribati behaviours and health. In 1857, Christian missionaries from the American Board of Commissioners for Foreign Missions (ABCFM) arrived in Kiribati and introduced concepts of Christianity. They were followed by the arrival of the London Missionary Society in the 1870s. Kirata (1984) emphasised the transition of I-Kiribati traditional ways of life to Christianity which involved a great deal of effort for missionaries. However,

religious tradition was gradually accepted by I-Kiribati and became part of their Kiribati culture (Kirata, 1985). Practising Christianity involved I-Kiribati shifting their traditional Kiribati beliefs and practices of supernatural powers, shamanisms, and *tabunea* to the Christian faith. Kiribati is therefore known to be one of the Pacific countries that is dominated by Christians.

While authors have claimed that the primitive adherences of the ancient Kiribati cultural practices by I-Kiribati are now no longer in use (Grimble, 1972; Grimble, 2013; Maude, 1989; Uriam, 1999; Uriam, 2017), Grimble, (1921) previously claimed that the generations affiliated to Christianity who had previously taken part in the traditional rituals, charms and ceremonies performed by the old pagan men and women of the northern islands, subsequently discarded and ridiculed them, referring to them as performing *bain te roo* meaning 'things of darkness'. Generally I-Kiribati would perceive *bain te roo* as non-Christian practices simply because I-Kiribati continue to engage, worship and believe in the supernatural powers or *tabunea* to their ancestral gods, instead praying and believing in the Saviour Jesus Christ (Morgenthaler, 1999).

However, generally, I-Kiribati have experienced positive effects of the practices of *bain te roo*. For example, the use of local supernatural powers and magical enchanting skills or *tabunea* are used to promote health and safety (*mauri*), wellness (*marurung*), or casting away evil spirits or spells that might have caused the illnesses (*aoraki*).

My observation on the practice of *bain te roo* does not seem to show this to be the case. *Bain te roo* could be argued as a traditional protocol of an island where the people of the island connect to their ancestral guidance of their land to protect them from harm or illnesses. For example, on the island of Marakei. Marakei people continue to practice the ancient rituals of their local islands where irua (visitors) or if a person from Marakei comes to the island for the first time, he/she/they must follow the ancient land protocols to pay a visit to the shrines of the women who are ancient protectors of the land. This visit must be organised according to the land protocols by village *unimwane* (respected elderly village men). This visitation is crucial for the visitors to introduce them to the islands' ancient

protectors and asked for their blessings to be bestowed upon the visitors and to protect them from harm or illness while on the island.

Similarly, the rituals of *kaunaki* i.e. being “made into a warrior” (Grimble, 1921, p. 27), still exists today. Teenage boys will be considered ‘ripe’ when they develop muscularity and this will be the time when they are trained in the skills to become warriors (Grimble, 1921), and be able to learn skills to become *rorobuaka* (a youthful capable bodied man) prior to getting married so that they can protect a family of their own (Uriam, 1999). I-Kiribati continue to talk about having their sons *kaunaki* and train them in the skills to become a fine *rorobuaka* and make sure that their sons are considered ‘ripe’ because this is significant when it comes to the *rorobuaka* asking a woman to marry him. The woman and her family will consider if the *rorobuaka* who asked for their daughter or granddaughter’s hand in marriage will be suitable and has met all the criteria to become a warrior and a skillful husband for their daughter or granddaughter.

Equally, great care is still taken to conceal the news that a woman is pregnant for fear of the people from outside the family casting a spell to harm the pregnant mother and the unborn baby. These beliefs and practices are still observed to be embodied in the I-Kiribati daily activities in the present day and are revealed in this current study.

However, anecdotes from the period of European colonisation of Kiribati, brought about controversial feelings among I-Kiribati with regard to a profound change to their Kiribati lifestyle and cultural traditions that impacted on their health and wellbeing. Uakeia, (2016) claimed that I-Kiribati became divided in their beliefs, causing hatred towards the foreigners by some I-Kiribati because non-nationals introduced an unfamiliar lifestyle such as smoking thus introducing new diseases to I-Kiribati and the introduction of gangs and prostitution. On the one hand, I-Kiribati accepted the foreigners’ ideas knowing that they benefited from learning from the missionaries the Kiribati alphabet, learning how to read and write in Kiribati as they assisted the missionaries preaching the word of God to their fellow I-Kiribati nationals, while traders introduced new tools and new skills for using those tools (Uakeia, 2016).

The introduction of the Christian faith by Protestant and Catholic missionaries to I-Kiribati brought about I-Kiribati converting to the Christian faith and practices (Bouma & Uriam, 2015; Talu et al., 1984; Van Trease, 1993). Prior to the colonisation by Christian missionaries, indigenous I-Kiribati relied on the practices involving the assumption, optimism and beliefs of acquired ancestral power and magic. According to Uriam (1995), previously there were two levels of gods, the highest first level were the *darkskin* and the *lightskin* gods who were dynamically involved with the work of creation and stationed “out there” or “up there” and were rarely consulted by I-Kiribati (Uriam, 2017, p. 26). However, the second highest level of the gods were the ones that I-Kiribati engaged with particularly when I-Kiribati performed their traditional activities for example the *wau* or *wawi* or *tabunea* (casting a spell or performing magical supernatural enchanting skills) performed by a sorcerer, the *kaiwa* (the act of telling the problem to a fortune teller or identifying a suitable native traditional healer or finding who and what caused the person’s illness) performed by the *ibonga*. The *kawai* was categorised in three forms: *tae-ibennao* (to cleanse the body from harmful causes of illnesses), *bonobono* (to block or frustrate evil spirits that might cause illness), and *kananga-raoi* (to receive good fortune) (Uriam, 2017). While these practices are considered against the Christian faith, based on anecdotes, these practices are still observed among I-Kiribati particularly in the rural islands of Kiribati. Calling upon and visiting I-Kiribati ancestors’ shrines are part of the Kiribati culture that often involve *tabunea* and incantations as part of cultural rituals and ceremonies.

1.2.7 WESTERN COLONISATION AND I-KIRIBATI TRADITIONAL PRACTICES

Banaba used to possess rich phosphate minerals but was subjected to phosphate mining by the British Phosphate Company (BPC) between 1908 and 1979 (Shlomowitz & Munro, 1992). During this time, the Banabans, the indigenous people of Banaba and many I-Kiribati who were recruited from around the Kiribati islands to work for the BPC were introduced to western culture by expatriates from England, Australia and New Zealand who worked in Banaba for this company (Briney, 2020). I-

Kiribati from other islands were recruited to work in BPC (Shlomowitz & Munro, 1992), while the Banabans were relocated to Rabi in Fiji by the Crown in order to free their lands for mining (Edwards, 2013). The islands of Banaba and Tarawa were predominantly European and therefore, the culture was slightly more westernised than the other islands of Kiribati as these islands became the base for the expatriates.

While I-Kiribati were predominantly introduced to western culture after the second world war, pre-colonisation was first introduced by settlers in Kiribati, who were mainly the Southeast Asians who travelled via Melanesia before the common era (BCE) between 1600 and 2000 (Bouma & Uriam, 2015). The authors further added that these Southeast Asians displayed skills and knowledge of sorcery and deceitful hostility skills (Bouma & Uriam, 2015). There is a lack of documentation that specifically describes whether the Southeast Asians ancestrally passed down such knowledge and skills to I-Kiribati or if such knowledge and skills were introduced to Southeast Asians by the indigenous people of Kiribati.

Around 1000 CE [Common Era] a group of Polynesians from Tonga and Samoa settled in Kiribati where intermarriages took place in the islands, thus further introducing exchanges of cultural practices and diverse sharing of customs and traits between the foreigners and I-Kiribati (Bouma & Uriam, 2015). Later in the 1700s, European explorers discovered the Kiribati islands and established these islands as a whaling base (Van Trease, 1993). During the 1700s and 1800s, more trading occurred between the European whalers, beachcombers, blackbirders (those who hunted for slaves), who regularly visited the islands to exchange their western goods for local foods and drink. I-Kiribati were then introduced to the western practices such as the use of tobacco introduced by European whalers, and western processed food and drink. Consequently, this exchange of goods may well have had a negative impact on I-Kiribati health such as tobacco addiction (Bouma & Uriam, 2015; Van Trease, 1993).

During the years between 1908 and 1979, there was a high influx of imported western foods to the urban areas of Tarawa - the capital island of Kiribati, and Banaba Island. These western foods including rice, flour, raw

sugar, preserved tin foods such as corned beef, various fruits, as well as sweet toffees, chocolate, carbonated beverages, cigarettes, and alcoholic beverages catered for many expatriates who were from England, Australia and New Zealand. At the time, many I-Kiribati were recruited from the many islands of Kiribati to work on phosphate mining on Banaba Island (Shlomowitz & Munro, 1992).

There is a dearth of literature on the Kiribati traditional practices and how these practices might have influenced I-Kiribati health and wellbeing during pre-colonialism. Pre-colonial history was written by Arthur Grimble, one of the very few to have written a history of the I-Kiribati. Maude claimed that Arthur Grimble dedicated himself diligently through his humbly attuned cultural approach to indigenous people of Kiribati to capture the essence of their cultural practices (Maude, 1989). As a resident Commissioner for six years from 1914 to 1932, Grimble became proficient in the Kiribati language and familiar with the Kiribati culture (Goodenough, 1991; Maude, 1989). However, while Grimble was accredited for being the first pioneer I-Matang, (a white European person who came from the land of Matang or a European country) to write about Kiribati traditional practices through his ethnographic research to preserve the Kiribati culture (see Grimble 1921, 1922; 1933), his work was limited to capture only traditional records of the Northern islands, particularly the Island of Marakei that were related to local magical enchantment skills (*tabunea*), religion, traditional practices of births, puberty, death, arranged marriage, societal arrangement, the maneaba system and dancing (Goodenough, 1991; Maude, 1989). This initial history of Kiribati was then further articulated by Maude's work that relied not only on Grimble's ethnographic fieldnotes, but from his thorough collection of Bibliography on the Kiribati traditions and cultural materials that extended from written reports, periodicals, Kiribati English dictionaries, and a few that were written about the Kiribati subjects by Theological College students in Fiji (Goodenough, 1991; Maude, 1989). As I-Matang anthropologists coming from an etic or outsider European worldview, Grimble and Maude might not have fully captured the essence and authenticity of these traditional practices of I-Kiribati.

1.3 I-KIRIBATI IN THEIR NEW HOST COUNTRY OF NEW ZEALAND.

Given the dearth of information about I-Kiribati general health status and their health practices in New Zealand, it may be helpful to consider how the health of other Pacific people in New Zealand has been understood. I-Kiribati in New Zealand are one of the many Pacific ethnic diverse cultural groups who migrated and live in New Zealand. Among the main Pacific ethnic groups are indigenous people of Samoa, Cook Islands, Tonga, Niue, Fiji, Tokelau, Tuvalu and Kiribati (Statistics New Zealand, 2018). In the paragraphs below, I will first introduce the Pacific peoples' demographic and their health status in New Zealand, followed by the demographic and health profile of I-Kiribati immigrants in New Zealand.

1.3.1 PACIFIC PEOPLES' DEMOGRAPHIC AND HEALTH STATUS IN NEW ZEALAND

The 2018 census evidently shows an increase in the Pacific people's population in New Zealand. According to the 2018 census, the total population of New Zealand is 4,699,755. Of this total, 381,642 are identified as Pacific peoples. The 2018 census shows an increase of 115,668 Pacific people living in New Zealand between the years of 2013 and 2018, and a median age of 23.4 years. This shows a youthful Pacific people's population in New Zealand. Of the 381,642 of Pacific people's population, 66.4% were New Zealand born and 33.6% were born overseas (Statistics New Zealand, 2018a). See Figure 1.3.1(a) Pacific Peoples population in New Zealand. Source (Census 2018).

Pacific people in New Zealand have been reported to continuously experience health determinants of social-economic challenges, inequities, low income, and poorer health outcomes than their European-New Zealand counterparts in New Zealand (Ministry-of-Health, 2020; Southwick et al., 2012; Statistics New Zealand and Ministry of Pacific Island Affairs, 2011). These health determinants were attributed to a high incidence of chronic and terminal illnesses for Pacific people, for example, diabetes, cardiovascular diseases and cancer (Ministry-of-Health, 2020). Pacific males' life expectancy was reported to be 5 years lower than their Non-

Pacific population in New Zealand, while Pacific females' life expectancy is 4.5 lower than their other non-Pacific female associates (Ministry-of-Health, 2020).

Figure 1.3.1: Pacific Peoples population in New Zealand. Source (Census 2018).

1.3.2 PERSPECTIVE ON DIVERSE PACIFIC ETHNIC GROUPS

While the diverse Pacific ethnic groups hold their own unique cultural beliefs and practices, they are being clustered and viewed as one entity under the 'Pacific' group (Kapeli et al., 2020; Ministry of Health, 2014; Tukuitonga, 2013). On a central level, clustering Pacific peoples under one umbrella has positive impacts in terms of economic strategy for social-cultural and health measures to cater for all Pacific peoples (Sorensen, 2017). For example, in more general terms, clustering diverse Pacific ethnic groups such as 'other Pacific' as one entity for smaller Pacific countries like Kiribati and Rotuma, it alleviates financial constraints for the government, by operating timely projects (Sorensen, 2017).

However, clustering a range of Pacific ethnic groups can impose negative impacts as each individual Pacific ethnic group operates uniquely culturally. A recent report by Ryan, Grey and Mischewski (2019) underlined that the data relating to Pacific health was often difficult to find and this was because vulnerable populations like Māori and Pacific were often grouped together and presented as one data set or even as Māori and Non-Māori comparisons. Coupled with this was the inconsistent approach that the health sector used for Pacific people to prioritise Pacific people according to their ethnic group in this order, *Māori, Pacific, Asian, Other*, whereas *Statistics New Zealand prefers the 'total response' approach* (Ryan et al., 2019, p. 2). Therefore, each Pacific ethnic group should be understood according to their individual culture, identity, health worldview and health practices. In Msoroka and Amundsen's article, 'One size fits not quite all: Universal research ethics with diversity', they pointed out the importance of conducting and completing a research *in the 'right', rather than the 'wrong' way* (Msoroka & Amundsen, 2018, p. 1). The collective Pan Pacific concept is important as there are some common cultural practices that are central to Pacific people in general, for example, Pacific people believed that Pacific traditional medicine was based on the underpinning of cultural foundation; community oriented; focused on relationships; experience focused; based on oral traditions of knowledge; informal education; sole healers; original traditions; and that these skills and traditional knowledge is sacred (tabu) and secret (Finau et al., 2004). The notion of *'one size fits not quite all'* reflects a diverse ethnic Pacific people coming from different cultural perspectives and practices. Whilst Pacific peoples have common cultural values and practices such as valuing their families for support, spiritual connection with God, cultural identity and effective communication that were proven to be successful strategies to improve Pacific families' health outcomes and education (Tautolo et al., 2020), each Pacific ethnic group is unique, for example having a unique language, traditional practices, and perceptions. The model of clustering the Pacific people may be practically challenging, expensive and may not be successful to meet the health needs of specific Pacific ethnic groups. This is important because it contributes to

each indigenous Pacific group's health and wellbeing as they transition and adapt to their host country of New Zealand.

While there have been numerous studies to understand the cultural practices of Pacific peoples in New Zealand in general, not many people know about I-Kiribati cultural practices, and /or their health perceptions. The reason being is that firstly, I-Kiribati are relatively new migrants to New Zealand than other Pacific ethnicities like Fijians, Samoans and Tongans who have been migrating to New Zealand since 1945 to work in the New Zealand's industries (Statistics New Zealand and Ministry of Pacific Island Affairs, 2010) and in 1960 to work on agriculture and forestry (Lee, 2009); and secondly that most previous research studies about Pacific people limited their sample study to include other Pacific peoples from the dominant Pacific ethnic groups for example Samoans, Tongans, Cook Island Māori, and Tokelau.

1.3.3 MIGRATION, PACIFIC PEOPLE, AND I-KIRIBATI POPULATION IN NEW ZEALAND

There is evidence that there has been a fast-growing Pacific population migrating to New Zealand since 1945 in response to the New Zealand government's lack of industrial labourers. In 1945 there was a total population of 2,200 Pacific people living in New Zealand (Statistics New Zealand, 2010). According to the 1976 census, there were about 65,700 Pacific people residing in New Zealand (Statistics New Zealand, 2010). In the 2013 census, 7.4% of the total New Zealand population are Pacific people. According to the 2018 census, there was an increase of Pacific people living in New Zealand of 8.1% of the total New Zealand population (Statistics New Zealand, 2018). Of the Pacific peoples' population in New Zealand, 66.4% are New Zealand born, and 33.6% are overseas born (Statistics New Zealand, 2010).

The increase of the Pacific population in New Zealand was a reflection of the New Zealand's immigration policies allowing Pacific peoples to apply for residency visas through the Pacific Access Category (Immigration New Zealand, 2018), the Samoan quota, the skilled migrant, business migrant and family categories. According to Statistics New Zealand, the population

of Pacific people will continue to increase by at least 10% by the year 2026 (Immigration New Zealand, 2018; Ministry of Health, 2014; Statistics New Zealand, 2010).

The population of I-Kiribati continues to grow in New Zealand. The 2018 census showed an increased rate of 62% for I-Kiribati in New Zealand since 2013 (Census 2013; 2018). There is no doubt that the population of I-Kiribati will continue to rise because of New Zealand migration policies such as the Pacific Access Category (PAC) where the government of New Zealand allows 75 I-Kiribati to apply for residency every year, the skilled migration policy, and the family reunion policy (Immigration New Zealand, 2018). But most importantly, more than 10,000 Kiribati nationals are forced out of their country by climate change, (Munk, 2003; World Bank 2004). Therefore attention should be paid to their health needs in their host countries (Schütz et al., 2019). Whilst a temporary change in the arrangement of international migration between countries because of the impact of the Covid-19 pandemic, the mutual association of migration between the governments of low-lying Pacific countries like Kiribati to New Zealand will continue, particularly in the context of climate change and the demands for skilled migrants, and seasonal workers to meet the needs of the New Zealand industries (Immigration New Zealand, 2018).

This is not the first time there has been migration towards New Zealand. In the 1950s there was an increase in I-Kiribati migrating to New Zealand in response to the New Zealand government's desperation for workers in various industries (Statistics New Zealand, 2010). In the 1970s, a handful of I-Kiribati migrated to New Zealand for several reasons. Following cessation of Banaba phosphate mining, male expatriates who married I-Kiribati returned with their wives and children to their home country of New Zealand, Australia or England.

In 2013, there were 2,115 I-Kiribati living in New Zealand (Census, 2013). About 93% of the I-Kiribati population live in the North Island of New Zealand, while 7% live in the South Island (Statistics New Zealand, 2014). Statistics New Zealand (2017) reported an increase in I-Kiribati immigrant population growth of 89.3 percent between the years 2006 and 2013.

Recently the 2018 census revealed 3,225 people identified their ethnicity as Kiribati (Census, 2018).

Figure 1.3.3: Kiribati Population in New Zealand (Source Census 2013 and 2018).

1.3.4 THE PROSPECT OF TOTAL MIGRATION, HEALTH AND CLIMATE CHANGE

There is a prospect of total migration for Pacific people who now live in small low lying Pacific nations like Kiribati, Tuvalu, Tokelau, Rotuma and Solomon Islands (to name a few) due to their environmental situations such as the effects of climate change, consistent passageways of tropical cyclones and typhoons, and high risks of active volcanic eruptions, earthquakes and tsunamis (Tabucanon, 2012). These environmental disasters are unpredictable and can happen at any time, destroying the countries and their livelihoods, and making them uninhabitable (Roy & Connell, 1991). Such unpredictable disasters will force hundreds of thousands of Pacific inhabitants out of their uninhabitable home countries and they will need to be relocated to other host countries. Tabucanon

(2012), further pointed out that total migration and relocation of inhabitants is a global issue and can happen instantly and with little or indeed without any warning despite the country's state of economy and development. Tabucanon (2012) argued that countries like New Zealand, Australia, Canada, and the United States should consider responding to this global issue by expanding immigration opportunities for indigenous people of the vulnerable countries who are faced by these environmental threats. Fiji responded to this global call and agreed to maximise immigration opportunities and policies at a global level for inhabitants of Kiribati, and has committed to permitting citizens of Kiribati to resettle in its country (Campbell & Bedford, 2014; Roberts & Andrei, 2015).

In relation to health and migration in the context of climate change, studies have reported that health is a driving force for migration as people migrate from their high-risk home countries to host countries of less risk, and in the hope of a better life and health systems (Schwerdtle, McMichael, Mank, Sauerborn, Danquah and Bowen 2020). The authors further reported that while studies focused on either the dyads of climate change and migration, or the dyads of climate change and health, little is done to examine the relationship between the triad climate change, migration and health (Schwerdtle et al., 2020, p. 1) In the context of climate change, total migration, and health of I-Kiribati, this study provides a better understanding of I-Kiribati social-cultural-health concepts and this understanding can assist health professionals of host countries to mitigate I-Kiribati settlement issues.

Kiribati is one of the vulnerable countries facing the impact of climate change and the rise in sea levels because most of its islands are about four to eight metres above sea level (Biribo & Woodroffe, 2013). These low lying islands are therefore prone to sea water floods destroying the islands' crops (Storlazzi et al., 2015). Aung, Singh and Prasad (2009) reported a continuous significant rise in sea level on the capital island of Tarawa, at a rate of 3.9mm per year. The authors further pointed out that if this rate persistently continued, Tarawa would become underwater in the next 50 years (Aung et al., 2009). While constant global attention is paid to the fate

of these low-lying islands like Kiribati, pertinent to the impacts of global warming and sea incursion, more attention should be paid to the preparation of the prospect of migration of inhabitants of these islands. The effects of climate change and the rise in sea levels will force about 110,100 I-Kiribati out of their lands and will need to be relocated in other host countries like New Zealand (Schütz et al., 2019) and they will have their health needs in their host countries (Schütz et al., 2019). This current study has sought to understand possible threats to the delivery of care to I-Kiribati who might be relocated in New Zealand or other host countries because of this potential total migration.

1.3.5 I-KIRIBATI DEMOGRAPHIC PROFILE IN NEW ZEALAND

As stated earlier, according to the 2018 census, there are 3,225 I-Kiribati living in New Zealand. Of this 3,225, 1,512 are men and 1,710 are women (Statistics New Zealand, 2018b). According to the 2018 census, of the total I-Kiribati population, about 4% arrived in New Zealand a year ago, compared to 43% who have lived in New Zealand for between five to nine years since arriving in New Zealand. The median age for I-Kiribati is 20.4 years. According to Statistics New Zealand, (2018), most of the Kiribati population in New Zealand now have children between five- and nine-years-old. In terms of ethnic group, 74.8% of the total Kiribati population identified themselves as one ethnic group. With regard to the birthplace, 41.3% of the total population were I-Kiribati New Zealand born while 58% were born overseas (Statistics New Zealand, 2018). Eighty-five-point five percent of the total I-Kiribati population speak English compared to 42.9% who speak two languages. I-Kiribati in New Zealand are predominantly Christians with 91.5% of the total Kiribati population belonging to one church, however, 8.5% of the total population have no religion (Statistics New Zealand, 2018). As for employment, 51.7% of the total I-Kiribati population are full time employees while 5.3% are unemployed (Statistics New Zealand, 2018b).

1.3.6 I-KIRIBATI TRADITIONAL PRACTICES IN NEW ZEALAND

From anecdotal information and my observations, I-Kiribati immigrants of New Zealand continue to practice their traditional practices in New Zealand. The practice of the *teiao* is a classic example that can have a positive impact on an I-Kiribati girl's health and wellbeing. However, the *teiao* has been modernised to suit the lifestyle of New Zealand. For example, in most I-Kiribati families, a girl having her first *teiao* will still undergo the *katekateka*, which is to not attend school for the whole three to four consecutive days and must be with a grandmother or a senior member of the family where she will be taught behavioural conduct fitting for a young woman. The girl will also be given a task to complete for the three consecutive days as mentioned above. I have also seen some families who brought the *benu*, (dry coconut fibres) from Kiribati or ordered these from their families in Kiribati for the purpose of making the *kora* during the first *teiao*. See figures 1.1 and 1.2; a Kiribati born girl had her first *teiao* in New Zealand was briefly shown how to make the *binoka*, and how to *kakano* to make the *kora* by one senior member of the Kiribati community.

Figure 1.3.6(a): A girl during her *teiao* learning how to make *te binoka*. Photo taken by Tom Schütz 26 January 2021.

Figure 1.3.6(b): A girl during her *teiao* learning how to *binoka*, and to make *te kora*. Photo taken by Tom Schütz 26 January 2021.

In some Kiribati families they modified the practice of the *katekateka* during the first *teiao* because of the unavailability of the materials such as those required to make the *kora*, or pandanus leaves to weave a basket. With regard to what the girl must eat during the *katekateka* (the dry coconut and water), families modified this practice because of the unavailability of the *takataka* (dry coconut) and instead they gave a small amount of milk and cereal or a slice of bread and rationed the girl's meals for lunch and dinner. The third day is usually a feast when members of the family and community members are invited to celebrate the womanhood of the girl. The traditional practice of the *katekateka* in New Zealand can be seen as an initial strategy than can have effects on the girl's good physical body as well as her mental well-being.

Nowadays, in New Zealand, many I-Kiribati are affiliated with a Christian faith, and because the traditional rituals used in the *teiao* involve some forms of the *tabunea*, I-Kiribati in New Zealand tend not to practice the traditional rituals and practices of the *teiao* as *tabunea* which are now regarded by I-Kiribati as practices that are against the Christian faith. However, a story (*karaki*) emerged during an informal conversation

(*maroro*) with one I-Kiribati woman here in New Zealand, who really captivated my excitement as she told her *karaki* about her first *teiao*.

To my amazement, this woman described the traditional rituals that were performed for her. She told me that the traditional practice of the *teiao* was very much alive among I-Kiribati and performed on this woman in 1989. She explained that she had her paternal grandparents sitting next to her for the whole day in an isolated room, drank only the coconut water that was mixed with herbal medicine (*te tabera ni kai*) and coconut oil. She only had three strips of the *buniia* (sweet fresh juice of the green coconut fibre), and she was taught how to make the *binoka* while her grandmother performed the *kakano* to make skeins of the *kora*. She used the Kiribati traditional pads made out of fresh, bitter, moist green coconut husks that were softened, prepared and kept in a cooler box to retain the moisture. The used soiled coconut husk pads were buried underground, but she was not certain why these soiled pads were buried. She said that these traditional pads were very soothing and comfortable. She further explained that they were very absorbent as the fibres stopped the blood from running and the blood clots were trapped between the fibres. She was also wearing the Kiribati traditional skirt made out of coconut leaves at that time.

On her last day of her period, early that morning around 3am, she was driven to the ocean by her grandparents to have a swim to complete the *teiao* rituals. She was told to dive into the waves each time a big swell of a wave approached her for three times. After that, her grandfather had already ritually prepared water that was mixed with special oil and herbs placed in an aluminum portable tub at the back of the truck for her to rinse herself with. This woman further told her *karaki* that on their way back, they picked flowers and both her and her grandmother made the head wreaths of fresh flowers to wear during the feasting which was held that evening. She also mentioned that she was given a special basket of food (*nibwarabwara*) of a special fish that her paternal grandparents used to eat as a way of the *katekeraoi*, to bestow upon her good luck or to be always in a state of *te mauri* or health.

1.3.7 MODELS OF WELLBEING FOR I-KIRIBATI IN NEW ZEALAND

There are two models of wellbeing which have been proposed for thinking about wellbeing of I-Kiribati in New Zealand. The first model is the *boutokaan te mweraoi* which translates to “the supporting beams or structures for uplifting or enhancing wellbeing in the home”, a conceptual framework developed by a group of I-Kiribati immigrants of New Zealand as a guideline to assist professionals who work with I-Kiribati in the event of domestic violence (Ministry of Social Development, 2015, p. 8). In literal terms the word *boutokaan* comes from the two Kiribati words - *bou* which means a pole, and *toka* means victory, while *mweraoi* means to live in a healthy environment. The emergence of this model was part of the Ministry of Social Development project to address domestic violence and enhance I-Kiribati wellbeing. The four elements of *boutokaan te mweraoi* framework were identified by the group including: *te karinerine* (respect), *te katei* (cultural practices specific to I-Kiribati), *te toronibwai* (obtaining I-Kiribati distinct survival life skills and related self-reliance skills to live well), and *marin a bara* “a health environment and ecology” (Ministry of Social Development, 2015, p. 8). In addition to these elements is the notion of *te maiu raoi* (Ministry of Social Development, 2015, p. 10) which is another important concept of *boutokaan te mweraoi* framework. The phrase ‘*Te maiu raoi*’ translates to ‘living a good life which is underpinned by preserving the Kiribati cultural practices that are being taught and passed on to the next generation (Ministry of Social Development, 2015). These elements must be practised within the *utu*, *kaainga* and within the *maneaba*, in order for the *utu* or *kaainga* to be in a state of good health and wellbeing, and that the *utu* or *kaainga* is in a state of *toronibwai* to ensure that an individual within a family and community is well provided for through the individual’s self-reliance, self-resilience, and self-determination to live a successful life. The notion of *te maiu raoi* therefore cannot be achieved without an individual’s efforts to practise and uphold the elements of *te karinerine*, *te katei*, *te toronibwai*, and to learn and make use of the skills that have been passed down to the individual within *te utu* and *te kaainga* (Ministry of Social Development, 2015).

Figure 1.3.7(a): Boutokaan te mweeraoi framework for I-Kiribati (Ministry of Social Development, 2015, p. 9).

The second model that I examined is called the neo-maneaba health and wellbeing model that emerged from the study examining the impact of Pacific Access Category (PAC) policy on the health and wellbeing of I-Kiribati migrant women of New Zealand (Namoori-Sinclair, 2020). In her thesis, Namoori-Sinclair (2020) used governmentality as a conceptual framework but also incorporated Kiribati cultural values, structural organisations and protocols used in the mwaneaba; the Kiribati traditional big meeting house where decisions are made by the eldest men of a village. Namoori-Sinclair (2020) proposed the neo-maneaba health and wellbeing model to close the gaps identified by I-Kiribati migrant women of New Zealand as they struggled to meet the criteria for gaining their permanent residency in New Zealand. The model has five elements: 1) cultural competency: that the PAC policy makers incorporate the cultural lens of Pacific ethnic groups' needs for example, information on searching for jobs, preliminary accommodation, pre-home country departure, host country settlements, language, and health care support services; 2) a sense of belonging: that the principles of the maneaba system are incorporated in

the policy to recognise I-Kiribati *utu* and *kaainga* support systems for PAC applicants; 3) rights: involve the right for PAC applicants to attend training sessions to enhance their wellbeing; 4) gender: while migrant women abide by their roles in the maneaba system, there is a need for these migrant women to extend and understand their roles as working mothers in New Zealand; 5) health equality: this enables PAC migrants to access services that enhance their health and wellbeing (Namoori-Sinclair, 2020, p. 246).

Figure 1.3.7(b): Neo-maneaba health and wellbeing model (Namoori-Sinclair, 2020, p. 246).

The above models are useful guidelines for professionals working with I-Kiribati in events of domestic violence (Figure 1.3.5(1)) and while settling in New Zealand (Figure 1.3.5(2)).

This current study provided a more in-depth understanding to answer the research question: What are the health practices of I-Kiribati immigrants in their host country of New Zealand and is there an in-depth understanding of I-Kiribati immigrants' health perceptions and health practices in Aotearoa New Zealand? This current study provides an in-depth understanding of how I-Kiribati navigate health practices in New Zealand if, and how, I-Kiribati immigrants bring with them their traditional health practices, and if, and how, I-Kiribati navigate between their Kiribati traditional and Western health practices to manage their health and illness. The next section will describe in more detail the research question aims and objectives.

1.3.8 RESEARCH QUESTION, AIMS AND OBJECTIVES.

This research sought to answer the research question: What are the health practices of I-Kiribati immigrants in New Zealand? This research study aimed to understand:

- a) if, I-Kiribati immigrants practice their traditional health practices in their host country of New Zealand;
- b) if, and how, I-Kiribati navigate between their preferred health practices;
- c) when do they need to decide to access their preferred health practices,
- d) what are the factors that influence their decision-making to access their preferred health practices to manage their health and illness;
- e) if, and how, I-Kiribati immigrants integrate or complement their traditional health practices with western health approaches;
- f) if, and how, I-Kiribati adapt to western health approaches in New Zealand, or
- g) if, and how, they abandon their Kiribati traditional health practices or
- h) if, and how, they reconstruct or reinvent their traditional health practices to the resources they have in New Zealand.

1.3.9. THE RESEARCH OBJECTIVES INCLUDED:

- a) To explore how I-Kiribati immigrants conceptualise their health and illness in their host country of New Zealand.
- b) To examine how I-Kiribati manage their health and illness as New Zealand immigrants.
- c) To identify factors that influence I-Kiribati immigrants' decision-making about managing their health and illness in New Zealand.
- d) To understand the impact of the possible threats of total migration because of climate change.
- e) To develop a culturally appropriate research methodology to understand the health perception and health practices of I-Kiribati migrants of New Zealand.

- f) To develop a preliminary health model explaining values that shape I-Kiribati health practices in their host country of New Zealand.

1.3.10. THESIS LAYOUT.

This thesis is organised into six main chapters. The introduction of the research study is provided in chapter one and is arranged into following headings: 1.1 Overview of the study; 1.1.1 is my personal motivation for the study; 1.1.2 the significance of the study; 1.2 Kiribati the country of origin, its society and culture, 1.2.1 I-Kiribati demographic profile and health status in Kiribati; 1.2.2 Kiribati kaainga, leadership and social system; 1.2.3 Traditional practices during puberty; 1.2.4 Traditions of engagement, marriage, and roles of husband and wife; 1.2.5 Traditions in fertility, pregnancy childbirth and postbirth; 1.2.6 Christian colonization and I-Kiribati spiritual beliefs; 1.2.7 Western colonization and I-Kiribati spiritual beliefs. 1.3 introduces I-Kiribati in their host country of New Zealand; 1.3.1 Pacific peoples' demographic and health status in New Zealand; 1.3.2 perspective on diverse Pacific ethnic groups; 1.3.3 migration, Pacific people and I-Kiribati population in New Zealand; 1.3.4 the prospect of total migration, health and climate change; 1.3.5 I-Kiribati demographic profile in New Zealand; 1.3.6 I-Kiribati traditional practices in New Zealand; 1.3.7 models of wellbeing for I-Kiribati in New Zealand; 1.3.8. Research question, aims, and objectives.

Chapter two presents the literature review and is divided into two main subheadings: 2.1 the literature review approach, and 2.2 key findings from the literature review. The literature review approach begins with describing the *kora* framework used to underpin the traditional literature review. Modelled by *te kora* framework, the search strategy and the review of relevant literature are described. In subheading 2.2. key findings that emerged from the literature are presented. These are: 2.2.1 Description of studies on Kiribati traditional practices and their influence on the health and wellbeing of I-Kiribati; 2.2.2 describes the position of I-Kiribati in Pacific studies in New Zealand; 2.2.3 the health perceptions of Pacific people and non-Pacific immigrants in their host countries are discussed while 2.2.4 presents different health practices and health-seeking behaviours. There

are four key concepts that emerged from the literature about the health practices of immigrants in their host countries and these are discussed under these sub-headings: 2.2.4.1 Deals with the persistent use of traditional health practices. Pacific people and other immigrants were accustomed to persistently use their traditional health practices in their host countries to manage their health. 2.2.4.2 The pluralistic health approach used when immigrants were found to be moving between various healing approaches, depending on their access to their preferred health system and the availability of their resources in their host country to manage their health. In section 2.2.4.3, it describes the dual-dichotomous health approach. A dual-dichotomous integrated health approach was applied when a person decided to use two health systems for example a western health approach and an indigenous health approach. Often in the dichotomous approach, immigrants would have accessed and tested both western medicine and their traditional health practices and made decisions to use both health practices to manage their health. In 2.2.4.4 acculturation and adaptation health approaches are discussed; 2.2.4.5 it explains western and traditional integrative health practices; and 2.2.5 describes barriers to access western health care services. The literature revealed factors that affect Pacific people and immigrants' access to western and traditional health services including the language barrier, health literacy, racial discrimination, illegal immigrant status and unreliable access experiences. These were reported to be the most common barriers for immigrants to access western health care.

Chapter three describes the research approach. This chapter is divided into two main headings: 3.1 methodology, and 3.2 the method. The methodology begins with describing the methodology exploring Pacific research methodologies, followed by the full details of *te kora* research framework that underpins this research. To ensure that I expand the parameters of a traditional western qualitative research to understand I-Kiribati immigrants' health perceptions and health practices, and to find out if, and how, I-Kiribati integrate their health practices with western medicine, I developed and used the metaphor of the Kiribati cultural practice of making

'*te kora*'. This is a traditional Kiribati string called *te kora* which I used to frame this qualitative research design and which I will describe in the next chapter. The method provides a detailed description of the research method, the study setting, recruitment of participants and the analytic approach to understanding the unique stories or *karakai* about how the I-Kiribati participants manage their health and illness in New Zealand, if and how they use their traditional health practices in New Zealand, and the factors that influence their decision making to use either their traditional health practices or western medicine. I also wanted to find out if and how they integrate their traditional health practices to western medicine, or any other health practices in New Zealand. Participants' stories were told in the Kiribati language, recorded, transcribed, and translated into English by the researcher.

Chapter four describes the findings of the research. 4.1 introduces the chapter and the findings. Six key themes emerged from the data that are presented in these subheadings: 4.2. health and illness perspectives; 4.3. the value of traditional practices; 4.4. traditional health practices; 4.5. food and its production; 4.6. beauty and wellness; and 4.7. the use of the western health approach.

Chapter five presents the discussion of this study. The discussion was shaped in such a way as to fill in the knowledge gaps of the health perceptions and practices of I-Kiribati immigrants. Four key discussion concepts emerged from the study including: the birth of *Te Kuan Model of Te Mauri*, integrating *Te Kuan Model of Te Mauri*; enabling access to health services and celebrating culture. I finish with offering recommendations and suggestions for health practitioners to improve their clinical practices that will ultimately improve the health outcomes of I-Kiribati immigrants in New Zealand in chapter six.

CHAPTER TWO: LITERATURE REVIEW

There is a crucial need for a differentiated and multifaceted approach that can do justice to the diversity and heterogeneity of modern societies (Schumann et al., 2020, p. 9).

2.1. THE LITERATURE REVIEW APPROACH

It is imperative that diversity is acknowledged and that all human races are treated with dignity and justice to avoid divergence (Schumann et al., 2020), particularly among migrants living in modern host countries. One way to avoid injustice to migrants is to gain understanding of their cultural perspectives and practices through research. A preliminary literature review must be conducted to retrieve, analyse and interpret existing knowledge, and identify knowledge gaps (Jesson et al., 2011) related to migrants' perspectives and practices.

Research on how I-Kiribati immigrants practise health in their host countries is almost non-existent. This knowledge gap therefore poses a major national and global problem not only in the academic world and research culture, but is also a concern in the clinical, education, policy making, and research settings. In the clinical setting, it is inevitable that health professionals may encounter I-Kiribati health consumers in their health services, and therefore in order to provide culturally competent care to I-Kiribati, they must have knowledge about I-Kiribati culture, health perceptions and health practices. The gap in this area can put I-Kiribati immigrants in a vulnerable position that lead to unaddressed health needs, resulting in poor health outcomes. Similarly, in relation to health policy makers, health educationists and researchers, they must also be well informed about the indigenous I-Kiribati cultural beliefs, values, and traditional practices to be able to develop relevant policies, conduct appropriate research for I-Kiribati and deliver competent health and nursing education and professional development programmes to nurses and other health professionals. Incorporating I-Kiribati traditional values, health perceptions and health practices in these areas is critical to inform health

professionals' practices, but most importantly, as mentioned earlier, health professionals must be prepared for the prospect of total migration of I-Kiribati should the impact of climate change make the islands of Kiribati uninhabitable.

Consequently a traditional literature review was conducted, firstly to appraise the existing related knowledge about I-Kiribati traditional practices that reflect their health and wellbeing, and secondly to capture a range of health perceptions and health practices of other Pacific ethnic groups including other non-Pacific immigrants in their host countries and see if there were potential parallels or points of alignment.

A range of literature that relates to the health perceptions, health seeking behaviours, and health practices of Pacific peoples in their host countries, and other non-Pacific immigrants' health worldviews in general terms, and the challenges that Pacific people and immigrants face to manage their health and illness in their host countries were reviewed. The literature review also explored the health perceptions and traditional health practices of indigenous Māori in Aotearoa New Zealand, as well as the challenges they face to access their preferred health practices.

According to Jesson, Matheson and Lacey (2011), they pointed out that "in research, we seek to be original and to make an original contribution to knowledge" (Jesson et al., 2011, p. 10). Seeking the originality and authenticity of knowledge is critical. Therefore, a traditional literature review was employed in this literature review for flexibility in locating literature related to understanding Pacific peoples and other immigrants' health practices in their host countries. The traditional literature review has also recently been adapted as "a research methodology in its own right" (Jesson et al., 2011, p. 73). Jesson et al., (2011), emphasised that the traditional literature review model could also be complemented as a methodical framework. Similarly, Bloomberg and Volpe (2012) underlined that even a literature review should be shaped by a conceptual framework.

This chapter describes the literature review approach from an epistemological and ontological standpoint of an I-Kiribati researcher undertaking this study about I-Kiribati health practices in New Zealand. To

underpin this traditional literature review to ensure that all possible databases were searched to identify, retrieve, review and scrutinise relevant literature I also incorporated the cultural concept of making *te kora* (Schütz, 2017), the Kiribati cultural research framework that I developed to frame this literature review for this study. This approach allowed flexibility to explore related ideas that were authentic and profound. A description of the steps of making *te kora*, and how these steps were metaphorically applied in the literature review process will be provided in the next paragraphs. This will be followed by a discussion of the key findings of the literature review.

2.1.1 TE KORA: THE LITERATURE REVIEW CONCEPTUAL FRAMEWORK

There are eight steps to make *te kora* that I have used to model the search strategy and the process of this literature review. These are:

Step 1: *Tarakai* – means ‘to inspect the family’s woodland property and search for coconut trees, orchard or other plants grown in the land that are suitable for food, drink, local medicines, or building local houses or canoes. In the process of making *te kora*, family members should examine all trees on their land and mark those trees having over-ripe, long and oval, green coconuts to be dropped down. When this process is applied to a literature review, the researcher should first examine the research question carefully to inspect, search, and look for relevant materials and databases that might provide relevant information for the research.

Step 2: *Aneane*: means to climb the coconut tree to reach the green coconuts at the top of the tree and drop them to the ground. The trees marked as having over-ripe coconuts as described above, are then climbed by young men, and these green coconuts are dropped to the ground. When applied to the literature review, the researcher accesses the appropriate databases and other relevant materials with the use of the key words to retrieve relevant literature.

Step 3: *Koromrom*: means to separate the husks from the coconut shell. With regard to the literature review, the researcher identifies, sorts

retrieved literature into a spreadsheet matrix, uploads and arranges them into categories or themes onto endnotes.

Step 4: *Tao benu*: means to soak the green husks in a pond or in the sea for about three months to soften husks which are now known as *te benu*. Regarding the literature review, the researcher needs some time to become familiar with the literature, this is the most important time for the researcher to read and review selected literature.

Step 5: *Tiribenu ao taawaan te benu*: means to clean and soften the *benu* by beating them with a wooden mallet on a piece of rock to separate the fibres from any extraneous matter, and then dry them under the sun. When this process is applied to a literature review, the researcher starts to analyse the identified literature.

Step 6: *Bobinoka*: means making *te binoka* by rolling about 6-8 of the *koran*, the soft dry coconut fibers between the fingers and thigh to make the fibres tight known as *te binoka* and arrange them into equal size. In the process of the literature review, the researcher organises and separates the identified elements of the themes identified through the synthesis.

Step 7: *Kakano*: means rolling two *binoka* together on the thigh to make *te kora* (string) and successive *binoka* are added to make a long skein of *te kora*. For the literature review, the researcher then integrates and creates new knowledge and new findings into the literature review.

Step 8: *Te Kora* – the string, the final product: the emerging knowledge from the literature review.

Figure 2.1.1(a): Images of green coconuts, *koromrom* and *te benu* (photos taken by Schütz, T. 2020).

Figure 2.1.1(b): shows diagrams illustrating the steps on the making *te kora* (picture drawn by Kinikini, L. 2021).

2.1.2 STEP 1: TARAKAI / MIND-MAPPING AND DATA SEARCH

I initially examined the research question; ‘What are the health practices of I-Kiribati immigrants in New Zealand?’ I carefully mind mapped key words for the literature search. I also examined databases that might

provide relevant information for the research, for example, the Waharoa Library Discovery System and electronic databases including Allied and Complementary Medicine, Humanities and Social Science, Annual reviews, Pacific and Māori, Pacific studies, and Google Scholar.

To shed light on the cultural heritage and customs of indigenous people of Kiribati and how these practices and traditional knowledge might have contributed to the management and maintenance of their health and illness, as part of Step 1: *tarakai*, the primary surveillance on a wide range of available literature that focused on I-Kiribati traditional practices was carried out. Due to the dearth of knowledge on the health perceptions and health practices of I-Kiribati in their host country of New Zealand, I expanded my primary surveillance or *tarakai* to include the health perceptions, health seeking behaviours, traditional health practices, and other health practices of Pacific people and other non-Pacific immigrants in their host countries, as well as the health perceptions and health practices of indigenous Māori people in Aotearoa New Zealand.

Concurrently, I also gathered my thoughts on the various journeys and reflected on my life experiences, anecdotes, and observations as an indigenous I-Kiribati nurse who worked in Kiribati, and as a nurse migrant working with the New Zealand health sector and engaging with my Kiribati community in New Zealand. Whilst 'other' Pacific, non-Pacific immigrants' and Māori health perceptions and practices differ from I-Kiribati health perceptions and practices in their own right, however, gaining a deeper understanding of their health worldviews and practices was integral to build the case for I-Kiribati immigrants in New Zealand.

The review considered Pacific people, other non-Pacific immigrants' understanding of health and illness, how that understanding influenced their decision making to manage their health and illness, if and how they brought with them their traditional health beliefs and practices to manage their health in their host countries. The review also took into account if, and how, Pacific and non-Pacific immigrants might have abandoned their health beliefs and practices and adapted to western health approaches; integrated their traditional health practices to the health practices of their host country, or if,

and how, they reconstruct or recreate their traditional health practices in their host country, taking into consideration the factors that informed their decisions to manage their health and illnesses.

To locate relevant literature, I focused on the following questions: 1) What understanding of health and illness do Pacific people and non-Pacific immigrants bring to their host countries? 2) How do Pacific people and other immigrants manage their health and illness in their host countries? 3) What informs their decisions when choosing their preferred health service; and if and how they integrate, complement, negotiate, or reconcile their health beliefs and practices to the health systems of their host countries?

Modelled by *te kora* framework, I conducted the *tarakai* through a comprehensive and rigorous literature search on the health perception and the health practices of Pacific people and other immigrants in their host countries to include most essential sources. I accessed a variety of literature sources including various electronic databases, printed textbooks, book chapters, journals, and relevant theses to search for relevant information that focused on four spect: firstly I-Kiribati traditional practices in Kiribati and in their host countries, secondly Pacific people, thirdly 'other' non-Pacific immigrants' health perceptions and practices in their host countries, and fourthly, the health perceptions and practices of the indigenous people of Aotearoa New Zealand.

I also accessed related Nursing, Health and Social Care including ProQuest Nursing and Allied Health Sources, PubMed, Wiley Online Library and Cochrane library. These electronic databases were extensively searched for relevant literature related to the I-Kiribati traditional practices. Key words including, Kiribati, immigrants, Pacific people; Pacific islands; Micronesian; Polynesian; Melanesian; culture; health-illness perception; cultural accounts; barriers to health; access to health; traditional medicine; western medicine; health diaspora; cultural healing; traditional healing; host countries; traditional / folk healing; health perceptions; health-seeking behaviours; health-practices; and New Zealand; were searched individually and in various combinations to locate relevant literature.

2.1.3 STEP 2: ANEANE: SEARCHING FOR RELEVANT LITERATURE

I began the search or conducted the *aneane* by initially accessing appropriate databases and other relevant materials. I searched for the word ‘Kiribati’ solely. The retrieved literature about Kiribati was examined and its relevance was scrutinised to include articles that talked about the Kiribati history, culture, traditional practices, migration, epidemiological health status, and climate change were then included as essential literature to setting the scene for this current study. Studies on I-Kiribati migration and resettlement in New Zealand were also selected as these formed fundamental knowledge of I-Kiribati experiences in shifting their lifestyles and traditional practices from their home-islands of Kiribati to the New Zealand context including the challenges they faced in relation to their health and wellbeing. The search was limited to articles that were written in English, and old literature dated from early 1900s was included when I searched for literature about Kiribati as Kiribati is under-studied.

I then approached the search using the Boolean and truncation operators to combine all the key words to exclusively elicit relevant articles that relate to the health perceptions and health practices of Pacific people in their host countries, and then non-Pacific immigrants in their host countries. The literature on Pacific people and other immigrants’ health perceptions and practices were limited to their relevance to the research question: What are the health practices of I-Kiribati immigrants in New Zealand? I also manually examined the reference lists of the relevant retrieved articles to include relevant research studies to complement the primary literature sources that were not elicited during the online database search.

2.1.4 STEP 3: KOROMROM / SORTING AND ISOLATING RELEVANT LITERATURE

Koromrom was a critical part of this literature review process where I carefully examined all the retrieved, identified, separated and sorted relevant literature from non-relevant literature. I then compiled the relevant

literature into a spreadsheet matrix, uploaded and arranged into categories or themes onto my endnotes.

To focus on related articles, I firstly read and examined the literature that explored the Kiribati traditional practices in general, these gave me some starting points on how these traditional practices might have reflected on I-Kiribati health and wellbeing. For example, There were articles that examined Kiribati traditional practices including; ethnographic fieldworks of anthropologists and scholars (Autio, 2010; Couper, 2020; Gilkes, 2006; Goodenough, 2003; Grimble, 1921, 1922, 1933, 1972; Grimble, 2013; Koch, 1986; Koru & Sullivan, 1986; Macdonald, 2001; Maude, 1937; Maude, 1952; Maude, 1989; Maude, 1991; Talu & Barrie, 1984; Uriam, 2017; Whincup, 2005, 2010). Kiribati and climate change, Kiribati and migration and I-Kiribati health related issues and other literature about Kiribati that might have influenced I-Kiribati health and wellbeing.

Secondly, I arranged the literature that focused on Pacific peoples' health worldviews and health practices in their host countries, and lastly other immigrants' health perceptions and health practices in their host countries. The information was also arranged in a spreadsheet matrix, which I then uploaded and grouped according to their concepts to determine patterns of cultural values, traditions, health worldviews, health practices, and how these concepts linked to each other. I also familiarised myself with the researchers' research approaches and methodologies on Pacific people and non-Pacific immigrants' health perceptions and health practices.

2.1.5 STEP 4: TAO BENU / FAMILIARISING MYSELF WITH THE LITERATURE

While this step was a lengthy process where I familiarised and immersed myself more deeply by reading and understanding relevant literature, I felt this was also a critical part where I immersed myself deeply to understand not only the research findings, but I also took a close look at each individual researcher's research approach to see if these research findings or approaches resonated with my research study. I also made appropriate notes for categorising concepts that emerged from the literature.

2.1.6 STEP 5: TIRI BENU AO TAWAAN TE BENU / LITERATURE CATEGORISING AND SYNTHESISING

At this point, I categorised the identified concepts and synthesised them into new themes which emerged from the literature. A more focused literature matrix and the endnotes were developed to keep record of the relevant literature for the purpose of the literature analysis and synthesis. Themes emerged from the literature review were categorised into four main themes: 1) Studies on Kiribati traditional practices, 2) Health Perceptions, 3) Health Practices, 4) Barriers to accessing health practices.

2.1.7 STEP 6: BOBINOKA - SORTING BINOKA – IDENTIFYING THEMES

Bobinoka is the important initial part of the literature synthesis where I organised and arranged identified concepts into main binoka or main themes. To understand how I-Kiribati immigrants manage their health and illness in New Zealand, the literature search focused on using more generic studies on Kiribati cultural values and traditional practices that might influence their health perception and health practices. Relevant literature was retrieved covering the generic knowledge about health and migration in the context of climate change, immigrants, indigenous Pacific and Māori health perceptions, health practices, health seeking behaviours, and the challenges that immigrants or indigenous Pacific or Māori faced to manage their health in their host countries.

2.2 KEY FINDINGS FROM THE LITERATURE REVIEW

From this review, a range Kiribati traditional practices (Autio, 2010; Grimble, 1921, 1922, 1972; Grimble, 2013; Talu & Barrie, 1984; Uriam, 1999; Uriam, 2017), health and migration in the context of climate change (Cameron, 2014; Campbell & Bedford, 2014; Donner, 2015; Gagaeolo et al., 2020), Pacific peoples' health perceptions and practices revealed the importance of keeping their identity, cultural values, and to remain connected with their traditional healing heritage that has been passed down from their ancestors to their generations (Faleolo, 2019; Fuimaono et al.,

2019; Macfarlane, 2009; Macfarlane & Alpers, 2009; Wilson, 2018). Persistent use of indigenous health practices, preserving cultural identity and heritage are also realised in indigenous Māori Aotearoa New Zealand as they are holistic in nature (Ahuriri-Driscoll et al., 2008; Mark et al., 2017; Riki Tuakiritetangata & Ibarra-Lemay, 2021).

Similarly, non-Pacific immigrants also persistently used their traditional healing practices to address their health and illness, and the importance of preserving their genealogy and identity in their host countries (Buser et al., 2020; France & Rodriguez, 2019; Tashiro, 2006; Tikhonov et al., 2019). Reports about the experiences of immigrants showed a variety of health perceptions in their host countries (Codjoe, Byrne, Lister, McGuire, & Valmaggia, 2013; Cohen, 2010; Tyson et al., 2016; Wolf et al., 2016). Other immigrants adopted a pluralistic health approach (Belliard & Ramírez-Johnson, 2005; France & Rodriguez, 2019), ie when a person is intending to utilise a variety of traditional healing approaches concurrently or integrate a variety of health approaches to manage health and illness. An example is the use of spiritual healing, medicinal plants, traditional massage, traditional diet and western medicine (Belliard & Ramírez-Johnson, 2005; France & Rodriguez, 2019; Koczberski & Curry, 1999; Lor et al., 2017; Martin, 2009). Others may move between a variety of healing practices, depending on their access to resources, health services, the people around them including their past experiences (Andrews et al., 2013; Kim, 2016). There were immigrants who integrated their traditional health practices with the western health practices of their host countries (Davidson et al., 2018; Falicov, 2007), while others were shown to use a dichotomous health approach. This was used mainly when immigrants decided to navigate between their traditional and western health approaches and use both health practices to manage their health or illnesses (Assefa et al., 2021; Ma, 1999).

The literature review shows that access difficulties occur due to several reasons such as those relating to language barriers and miscommunication (Choi, 2013; Clough et al., 2013; Foliaki et al., 2020; Jang et al., 2016; Luque et al., 2018; Schmidt et al., 2018; Tyson et al.,

2016), high health care costs (Fuimaono et al., 2019; Kim, 2016; Lilo et al., 2020; Luque et al., 2018), unaffordable health services and health cover (Anderson et al., 2019; Smith et al., 2019; Tyson et al., 2016), racial discrimination (Asad & Clair, 2018; Kapeli et al., 2020; Ransford et al., 2010), illegal stay in the host country (Garcini et al., 2018), and they also face difficulties accessing their own traditional health practices while living in their host countries (Kim, 2016; Wilson, 2018; Zhang, 2016).

To structure the review of the material sourced in this section, I used the following headings, all focusing on the practices described above: literature on Kiribati traditional practices, the position of I-Kiribati in Pacific studies in New Zealand, health and migration in the context of climate change, health perceptions, health practices including persistent use of traditional practice, a pluralistic health approach, dichotomous health approaches, dual-dichotomous health approaches, or integration of health approaches, and barriers to access health services.

2.2.1 LITERATURE ON KIRIBATI TRADITIONAL PRACTICES

In the ancient days, prior to the 1700s, Kiribati traditions were natively and authentically well-preserved by I-Kiribati ancestors and therefore they were untouched and uninfluenced by other foreign cultural worldviews and practices. However, these traditions and cultural practices were not documented for dissemination to the wider audience outside of the I-Kiribati. They were passed down from generation to generation (and are still today), by way of oral stories, songs, dances, poems, ritual ceremonies, and rites (Grimble, 1921, 1922, 1972; Maude, 1989; Talu & Barrie, 1984; Uriam, 2017).

Furthermore, the Kiribati health perceptions and health practices are reinforced by two additional cultural factors. Firstly, the oral traditions were memorised by I-Kiribati experts and therefore were not written. Secondly, it is customary that Kiribati *kaainga* possess or inherit traditional knowledge and skills from their ancestors and are treated as the *kaainga* becoming a sacred or *tabu* ancestral legacy or properties of the *kaainga*. *Tabu* practices in this context, mean that any member of the *kaainga* is prohibited from revealing these traditional practices to a person who does not belong to

their *kaainga*. Members of the *kaainga* must be secretive about their traditional practices and are expected to keep these within their *kaainga* circle.

There has been a considerable number of published anthropological works that focused on traditional practices, but they did not specifically provide in-depth understanding on how these Kiribati traditional practices might have related to managing specific health conditions or maintaining the I-Kiribati's health and wellbeing. As early as 1913, there was work that focused on Kiribati traditional practices, for example constructing the Kiribati local canoe, the Kiribati maneaba system, family systems, myths, poetry, navigation and astronomy skills (Maude, 1989), the cultural processes of birthing, adoption, betrothal, marriage, incest and sorcery skills (Grimble, 1921, 1922, 1972), and the historical-social oral traditions of Kiribati (Uriam, 2017). Other literature distinctly focused on World War II in Tarawa, Kiribati (McQuarrie, 2012), the impacts of I-Kiribati international migration and population change in the face of climate change (Bedford & Bedford, 2010; Bedford et al., 2016), the 'transverse' international temporary migration among I-Kiribati seafarers working on overseas merchant navy vessels and fishing vessels sending remittance back to Kiribati to help their families to meet their necessities (Borovnik, 2006), the impacts of climate change on Kiribati and I-Kiribati livelihoods (Cauchi et al., 2019), adaptation measures of climate change for I-Kiribati (Donner & Webber, 2014; Duong, 2015), and establishment of international legal law and migration with dignity for I-Kiribati (Farquhar, 2015; Ferreira, 2018). Another ethnographic study on the social organisation and notions of cultural practices on the island of Tabiteuea underlined that each I-Kiribati family, had its own unique *differentiation* and power of the culture (*katei*) within their ranked or non-ranked respective families, villages, and within Tabiteuea Island (Autio, 2010, p. 33). In the Autio (2010) ethnographic study, 'modern' variables and 'traditional' binary were distinctively emphasised that stipulated the power of the foundations of the society related to *mauri* (health), *mari* (luxuriance), and *kamaraia* (curse).

Little has been written about I-Kiribati health and illness in general. The only studies about the health and illness of I-Kiribati have focused on western epidemiological perspectives and the incidence of diseases such as a study on enhancing supervised treatments and tracing contacts of pulmonary tuberculosis (Aleksic et al., 2013), the association between health comorbidities of diabetes and tuberculosis, their treatments and health outcomes (Cavanaugh et al., 2015), the prevalence of non-insulin-dependent diabetes (King et al., 1984), the survey on the impact of I-Kiribati lifestyle modernisation on diabetes and cardiovascular conditions (Zimmet, 1981), and the review on viral hepatitis and immunisation (World-Health-Organization, 2017) to name a few. Other studies about Kiribati have been focused on migration and relocation (Bedford & Bedford, 2010; Bedford et al., 2016; Campbell & Bedford, 2014; Gagaeolo et al., 2020), the social-cultural and environmental impacts of climate change on Kiribati as a nation and the livelihood of I-Kiribati (Allgood & McNamara, 2017; Cameron, 2014; Donner & Webber, 2014; Duong, 2015; Kaunda & Timon, 2019; Mallin, 2018; McIver et al., 2014). Moreover, a few studies have yielded the experiences of I-Kiribati immigrants and the impact of their settlements causing social-cultural and financial stress and the recommended strategies to alleviate this stress in New Zealand (Duong, 2015; Fedor, 2012; Gillard & Dyson, 2012; Namoori-Sinclair, 2020; Thompson, 2016; Thompson et al., 2017). Whilst these studies are important for providing a fundamental understanding of what might be the health and wellbeing of I-Kiribati in general, these studies have not examined the health perception and health practices of I-Kiribati to manage their own health and illnesses, if, and how, they navigate between their traditional or western health practices, and factors that influence their decision making to choose their preferred health approach to manage their health and illness both in Kiribati and in their host countries.

A closer look at the mentioned literature on I-Kiribati and their health perceptions and traditional practices, however, revealed extensive gaps and shortcomings pertaining to the health and wellbeing, both as I-Kiribati citizens of Kiribati and as I-Kiribati immigrants in their host countries. The

paragraphs below discuss the position of I-Kiribati migrants in Pacific studies in New Zealand exploring health perceptions of Pacific peoples, and the gaps in the literature.

2.2.2 POSITION OF I-KIRIBATI IN PACIFIC STUDIES IN NEW ZEALAND

In New Zealand, most studies exploring the health of the Pacific people were often predominantly focused on Pacific ethnic groups, for example: Samoa, Tonga, Cook Islands, Tokelau, Fiji, Tuvalu, and Niue. I-Kiribati, i.e., latterly migrated Pacific immigrants to New Zealand, (Ministry of Health, 2008; New Zealand, Statistics, 2011) are classified as 'other Pacific' and therefore their health perceptions and health needs are often generalised under 'Pacific peoples'. Furthermore, most studies examining Pacific health needs generally focused on the perspectives of larger Pacific ethnic groups in New Zealand. For example, Tamasese, Parsons and Waldegrave, (2014) only looked at the perspectives of Tokelauan, Niuean, Tongan, Cook Island and Samoans on ageing in New Zealand. Abel, Park, Tipene-Leach, Finau & Lennan's, (2001) study only investigated infant care practices among selected Pacific participants from Tonga, Samoa, Cook Islands, and Niue.

Similarly, a study by Ete-Rasch and Nelson (2013) on Pacific parents' perceptions on the management of skin infections prior to hospitalization also focused on parents descending from Samoa, Tonga, Tokelau, and the Cook Islands. Equally, a study about Pacific Island families by Paterson, Tukuitonga, Percival, Abbott, Feehan, Silva, Carter, Cowley-Malcolm, Borrows, Williams & Schluter (2006) concentrated on exploring the perceptions of Samoan, Tongan, Cook Islands, Māori, Niuean and Other Pacific peoples about their children's first two years of life. Another study on cohort profiles of the Pacific islands families explores the demographic profiles of Samoans, Cook Island Māori, Tongans, Niueans, Fijians Tokelauans and Tuvaluans (Paterson et al., 2008a). Additionally, a study exploring barriers to access cervical screening for Pacific women focused on participants descending from Tonga, Fiji, Samoa, Tokelau, Cook Islands and Papua New Guinea (Jameson et al., 1999). A more recent study

focused on the knowledge and awareness of Pasifika women from Niue, Cook Islands and Samoa about gynaecological cancers (Nosa et al., 2018).

However, a fairly recent report that explored the health worldviews of Pacific peoples had I-Kiribati participating in the study and revealed some elements of I-Kiribati perceptions on health and illness, and their barriers to access health care services and a healthy lifestyle. These barriers included language barriers, the unaffordable cost of health services, lack of knowledge of a healthy lifestyle, poor housing, low income and lack of resources that led to influencing their decision making which then ultimately affected their health outcomes (Southwick, Kenealy & Ryan, 2012).

The next paragraphs describe the themes that emerged from the reviewed literature about the health perceptions of immigrants in their host countries, Pacific people living in New Zealand, and indigenous people of Aotearoa New Zealand.

2.2.3 HEALTH PERCEPTIONS

This literature review initially drew on generic literature about how immigrants' and Pacific peoples perceived health in their host country. Health perception and practices are often expressed as how an individual views and understands health and illness from their cultural standpoints (Belliard & Ramírez-Johnson, 2005). Most studies underlined that immigrants bring with them their traditional heritage, beliefs, and values. These have shaped their existence and ultimately contributed to their health and wellbeing in general (Andrews et al., 2013; Assefa et al., 2021; Belliard & Ramírez-Johnson, 2005; Codjoe, Byrne, Lister, McGuire, & Valmaggia, 2013; Cohen, 2010). One study exploring the wellness perceptions of the minority black ethnic groups of Africa and the Caribbean, who were at risk of developing psychosis, revealed six factors that shed light onto these migrants' definition of wellness, that were distinct from the western health worldview (Codjoe, Byrne, Lister, McGuire, & Valmaggia, 2013). These factors explained their worldviews on their social awareness, that of being tested by God, internal spirituality, level of knowledge, and acknowledgement of the effects of witchcraft, abstention and hardship, and help-seeking and coping mechanisms (Codjoe, Byrne, Lister, McGuire, &

Valmaggia, 2013). The authors further described that understanding the wellness perceptions of this population might be beneficial for the health system to improve the delivery of care for this population in the United Kingdom (Codjoe, Byrne, Lister, McGuire, Valmaggia, et al., 2013).

Buser, Moyer, Boyd, Zulu, Ngoma-Hazemba, Mtenje, Jones and Lori (2020), emphasised the common perspective on the care of mothers and their newborns about the importance of abiding with the traditional protective newborn rituals. Mothers perceived that abiding with the rituals would protect their newborns from getting unwell with coughs or pneumonia (Buser et al., 2020). The authors further explained that the community members of Zambia's perceptions revealed a great sense of responsibility for protecting newborns, and therefore making sure that a single or any unmarried person must not touch the newborn until the newborn is over a month old. If this *tapu* is breached, the newborn would die or would be infertile (Buser et al., 2020).

According to Mark, Chamberlain and Boulton, (2017), indigenous Māori people are bound to stay within their societal boundaries and to obey the lore of *tapu*, in order to maintain a state of harmony with people and the environment. This is important to maintain their wellness and to be free from illnesses (Mark et al., 2017). The author further described that the Māori perceptions of health were based on three cultural concepts of healing including connecting to the wairua or spirit, the interpersonal connection between the health consumer and the healer, and association between the healer and the land and plants (Mark et al., 2017). The perceived health outcomes to measure Māori health outcomes can be measured against the three levels of health outcomes. These include distress alleviation, improved health and wellbeing, and lifestyle modification (Durie, 2010).

Previous research showed that knowledge gaps about immigrants' health perceptions, cultural traditions and practices among health professionals can lead to disagreement, incongruity and inconsistency of health approaches and management of health. To avoid these issues, it is important to examine what a holistic care approach means to migrants in

their host countries. According to Cohen (2012), an Australian pioneer of wellness, in particular the integrative and holistic medicine approach, pointed out that wellness is described from the Eastern standpoint as the application of principles of cosmology, and that wellness must be reflective of the nature and origin of the universe. For example, the Traditional Chinese Medicine (TCM) perspectives on health entailed the authentic principles of *Tao, Qi, five states of transformation concepts and Yin and Yang* (Cohen, 2010, p. 7). Cohen further underlined that cosmological balance is crucial for wellness and that it is often perceived as... *a holistic and multidisciplinary concept that represents a state of maximal resilience and enjoyment* (page 12). Contrary to this, the western worldview on wellness focuses on the principles of thermodynamics, where the relationships between energy and heat must be maintained in order to be well (Cohen, 2010).

Other studies evidently supported the positive impacts of health care practices in understanding the health worldviews and practices of immigrants' health consumers. For example, Li, Hsu, Chen, and Shu (2017) emphasised that understanding the perspectives and health practices of Taiwanese women in managing their health assisted their health professionals to provide culturally competent care (Li et al., 2017). Similarly, Wolf, Zoucha, McFaland, Salman and Dagne, (2016) explored the perceptions of Somali immigrants of Minnesota in the United States and revealed knowledge of the Somalian health beliefs and practices that related to mental health. The study underscored the importance of in-depth understanding of immigrants' cultural beliefs and practices to benefit both the health delivery service and the health outcomes of immigrants (Wolf et al., 2016). It revealed four factors which included religious faith, tribe connectedness, cultural heritage, and the use of the khat plant, that were integral, not only to improving the Somalians' health but that these factors also influenced their decision making in managing their health (Wolf et al., 2016). The authors further pointed out that their study uncovered critical information which was needed to assist nurses and health providers

provide a more congruent and culturally competent and safe care-related mental health for the Somalian immigrant group (Wolf et al., 2016).

A range of illness perceptions also emerged from the reviewed literature. One study by Tyson, Arriola and Corvin (2016) suggested that financial difficulties and loss of jobs was perceived to be causative factors of depression among Latino immigrants in Florida. The authors further revealed that while Latino immigrants recognised the clinical manifestations of depression, even if they had newly diagnosed depression, they also perceived that to unburden themselves by getting things off their chest might further burden the person or family members receiving that burden, and therefore they were reluctant to share their burdens with their family members (Tyson et al., 2016).

People often make the initial interpretation and self diagnosis their illnesses at home (Belliard & Ramírez-Johnson, 2005), and latter decide on what treatment or healing approach that is best to treat the ailment. Commonly, most people rely on the most popular health approach (Belliard & Ramírez-Johnson, 2005). One case study examining how illnesses are defined and classified by Mexican women, for instance headaches, ear and throat infections and the common cold, were common ailments that could be treated at home with home remedies (Belliard & Ramírez-Johnson, 2005). These were interpreted as an illness caused by *a personalistic illness*, referring to a headache caused by a person who is an envious individual with supernatural power (Belliard & Ramírez-Johnson, 2005, p. 276). For the Chinese, they believe that their traditional Chinese medicine offers alternative or complementary healing methods to maintain the body balance, cure long term health conditions, and do not have any side-effects (Wu et al., 2007; Zhang, 2016).

The different cultural perspectives of an illness and the lack of understanding about the use of western interventions were seen as a problem among health consumers. Norris, Fa'alau, Churchward, and Va'ai (2009) in their study exploring the perceptions of illness of Samoans in New Zealand and in Samoa, and the use of their Samoan traditional healing, and/or western medicine to manage their illnesses, revealed that their

navigation between Samoan and western treatment was based on a range of illness interpretations and their causes. The illness interpretation according to the participants of the study ranges from a distinctive classification of illness as a Samoan or European illness. For example, mental health was perceived as the Samoan illness caused by Samoan cultural superstitions or caused from spirits, therefore the illness would be best treated with the Samoan traditional treatment, while a western illness such as cancer, diabetes or heart problems would best be treated by western medicine (Norris, Fa'alau, et al., 2009). They also found that Samoans moved between western and traditional treatments in a trial-and-error process to determine what was best to treat their illness.

In another study by Norris, Churchward, Fa'alau and Va'ai (2009) exploring the perceptions on the use of antibiotics among Samoans in New Zealand revealed that many Samoan people demonstrated little understanding of antibiotics, illustrated by those with frequently not completing their course of antibiotics when they got better (Norris, Churchward, et al., 2009). The study also revealed that the Samoans believed that antibiotics were too strong and might not be appropriate for them to use (Norris, Churchward, et al., 2009). Depending on the type of illness perceived, the Samoans tended to abandon the use of antibiotics and utilise Samoan traditional healing. A comparative study also highlighted that the lack of knowledge on the western use of antibiotics can also influence Samoans' decisions whether or not to use antibiotics (Norris, et al 2011).

Mark et al, (2017) described that prior to colonisation, the Māori perception of health was primarily based on the Māori cultural values of *tapu*, which means 'sacred', and *noa*, meaning 'common'. Challenging the *tapu* practices is displeasing the god/s or atua and therefore, "any departure from normal health meant Māori had committed a breach of tapu which was considered an offence committed against the spiritual realm" (Mark et al., 2017, p. 78).

These examples of the health perceptions perceived by immigrants and Pacific people living in their host countries provided some foresight into

how I-Kiribati might have viewed health and illness in their host country of New Zealand.

2.2.4 HEALTH PRACTICES

This section provides a discussion on the main health practices of immigrants and Pacific people in their host countries that emerged from the reviewed literature. These health practices consist of the persistent use of traditional health practices, the pluralistic health approach, the dual-dichotomous health approach, and an acculturation-adaption health approach.

2.2.4.1 PERSISTENT USE OF TRADITIONAL HEALTH PRACTICES

The first health approach described in the literature is the “Persistent use of traditional health practices”. Several studies show that immigrants in their host countries persistently use traditional health practices from their home countries to manage their health and illness. For example, in England, a study by Prior, Chun and Huat (2000) on Cantonese-speaking Chinese immigrants, highlighted that this population continued to value their traditional beliefs, attributing the causes of their illnesses to the power of demons, the wrong type of food and unfavourable weather. They often continued to practise Traditional Chinese Medicine (TCM) to maintain their health (Prior, et al 2000). In another example by Kong & Hsieh, (2012), elderly Chinese immigrants also persistently used TCM after immigration to the United States. Hmong refugees in Australia were reported to use traditional medicine concurrent with western medicine (Wang, 2005). In one study, as many as 73% of Ghanaian immigrants in Canada continued to use Ghanaian traditional medicine (Barimah, Edwin & Teijlingen, 2008). In another study in the United States, a group of Vietnamese immigrants to San Francisco and Alameda Counties showed 47% used Chinese herbs, 43% consulted a herbalist, 84% used southern medicine to restore balance, 24% used an acupuncturist and 1% used a sorcerer, a fortune teller, or a medium Buddhist priest to manage their health and illness (Jenkins, Le, McPhee, Stewart & The Ha, (1996). Barragan, Ormond, Strecker and Weil, (2011) in their study emphasized that pregnant Mexican women in the

United States who had the lowest level of acculturation in their culture, were reported to be grounded in their Mexican culture and persistently engaged with their cultural health practices. The women with a low level of engagement with the dominant culture genuinely articulated the efficacy of their cultural beliefs and practices on the care of pregnancy and childbearing (Barragan et al., 2011). Those who were in level 5 being the most orientated to United States cultural practices, persistently accessed western medicine during their pregnancy (Barragan et al., 2011).

Similarly, Ransford, Carrillo and Rivera, (2010) in their study of Latino immigrants in the United States revealed that recently arrived Latino immigrants to the United States also persistently used herbal remedies and folk healing, and at the same time used mainstream treatments to maintain their health and wellness (Ransford, et al, 2010 p. 864).

Whilst immigrants persistently use their cultural beliefs and practices to manage their health and illness in their host countries, they also preserved their cultural health practices to maintain linkages to their genealogy and identity. Traditional practices in the United States allowed Chinese immigrants to maintain their social-moral status and traditional responsibilities within their families and allowed them to pass their cultural heritage of health knowledge and practice to the next generation (Kong & Hsieh, 2012). Using cultural approaches to health to preserve identity was also echoed in the study by Toshira (2006) where older mixed-Asian Americans associated with their cultural health practices and their identity.

Studies have also shown that Pacific people living in host countries persistently use their indigenous health practices. Several authors also reported that strongly held religious beliefs emerged as a cultural means for some immigrants to manage their health and illness. For example, Tamasese, Peteru, Waldegrave and Bush (2014) reported that most Pacific elders believed that spirituality played a significant role in their wellbeing in New Zealand. Ihara and Vakalahi (2011), also underlined the significance of the Christian faith and spiritual healing being core cultural components of the Samoan and Tongan elders' health and wellbeing in Hawaii. Barnes, et al (2004) further highlighted the implications of the power of the Tongans'

Christian belief over western medicine worldview whereby the Tongans perceive that diabetes is due to 'God's will'. This view is present in non-pacific peoples as well. Francis, Griffith and Leser, (2014) found the 'God's will' fatalistic perspective was also reiterated by Somalian immigrant women. Another study by Codjoe, Byrne, Lister, McGuire & Valmaggia, (2013) similarly found that traditional factors shaped the beliefs of African and Caribbean immigrants to England. This included illness being due to either a test from God, inner spirituality, witchcraft, misfortune, or imbalance of coping mechanisms. However, spiritual healing by some immigrant communities is viewed as a fundamental health concept, but not necessarily seen as part of the treatment for physical illness (Ransford & Carrillo, 2010).

2.2.4.2 PLURALISTIC HEALTH APPROACH

A second health approach which emerged from the literature review is the 'Pluralistic' health approach. When referring to a 'pluralistic health approach' it means when a health consumer uses more than one health system such as other alternative or complementary health systems together with western medicine to manage one health condition. According to Amzat and Razum (2014), they defined the pluralistic health approach as "the coexistence in a society of differing medical traditions grounded in different principles or based on different worldviews" (Amzat & Razum, 2014, p. 207). To be specific, this refers to the use of a multiple medical systems, or the utilisation or integration of these multiple medical systems including conventional biomedical, complementary and alternative medicine to manage health and illness (Amzat & Razum, 2014). The authors further categorised the practitioners according to their expert areas for example, herbal medicine, diviners or human-ancestral-spiritual and faith-based healing, traditional birth skills, traditional medicine, bone-setting, traditional mental health healing, and western medicine. Similarly, Billiard and Ramirez-Johnson, (2005) used Kleinman's (1980) categories of pluralistic health approaches to describe *the professional sector* which refers to the western medicine approach, *the folk sector* which refers to the traditional healing practices and *the popular sector* pluralistic approach that indicates

the health practices based on individual, family, social and community connections (Billiard and Ramirez-Johnson, 2005).

Previous studies showed the efficacy and success of the pluralistic health approach in managing health and illness. For example, a study by NiaNia, Bush and Epston (2013) revealed a successful pluralistic health approach to a Cook Island Māori immigrant family of New Zealand, where the parents used western mental health treatments together with cultural and spiritual health approaches to manage their daughter's mental health condition. The cultural and religious aspects were incorporated in western health management resulting in the family members, the psychiatrist, nurse, pastor and patient, who all agreed to use western medicine, faith healing, family counselling and the use of a diviner to connect the family to the child's late grandmother and together agreed to use those multiple health approaches. This was an example of a successful multiple health approach that provided a holistic health approach, and more meaningful culturally appropriate and safe interventions for this particular health consumer. Similarly, another study by Tashiro (2006) revealed that whilst the first generation of mixed Asian-American immigrants were raised within a western lifestyle in the United States, they continued to use the pluralistic health approaches of their indigenous Chinese herbal medicine, Chinese diet, acupuncture, Tai Chi and Chi Gong to maintain their health and wellness. They also made use of western medicine and at times they amalgamated the diverse health approaches with great results in the health outcomes of the study participants (Tashiro, 2006). Western medicine was also commonly accessed by immigrants. In another study whilst immigrants persistently consulted folk healers, bone setters, herbalists, and masseurs, they also accessed western medicine during pregnancy (Barragan et al., 2011).

Other authors who describe forms of the pluralistic health approach include Ransford, Carrillo and Rivera (2010) who explored Latino immigrants' use of herbal medicine, western medicine; and local Mexican doctors (Ransford, Carrillo & Rivera, 2010). Koczberski and Curry (1999) provided the example of how a Papua New Guinean family used diverse

health approaches to manage their child's illness. The family decisions were based on a belief that one healing practice was not adequate to treat illness. They engaged with a variety of healing approaches including reconnecting to their ancestors to gain their ancestors' healing power, using cultural ritual feasting resulting in a big family feast where they brought local foods they believed would help the healing process and cast out natural causes of their child's illness, and using holy water to cleanse any supernatural sorcery, but at the same time they used antibiotics to treat their child's infection (Koczberski & Curry, 1999).

Blending and integrating the multiple health approaches was reported to be successful in managing health. For example, Belliard & Ramirez-Johnson (2005), in their ethnographic case study of understanding the health worldview of a Mexican immigrant woman in California, revealed a successful pluralistic health approach. For example, she used a combination of western medicine, Hispanic folk or traditional healing that included Hispanic folk healers using traditional botanicas (herbal medicines), santeras (religious healing), curanderos (a combination of herbal and spiritual healing), sobadora (bone-setters and masseuses), alongside Mexican home healing remedies which were often considered as first line treatment (Belliard & Ramírez-Johnson, 2005). Whilst this Mexican immigrant woman utilised and integrated different health approaches, she was clear about when she needed to access and integrate the most appropriate health approaches to manage her health. For example she would approach a sobadora (folk healer) to give her a series of massages to correct her infertility, but she would also apply her home remedy in combination to the massages to boost her wellness (Belliard & Ramírez-Johnson, 2005). In addition, for headache, this Mexican woman would treat it with her first line treatment of home remedies for example massage, herbal teas and prayer (Belliard & Ramírez-Johnson, 2005). This Mexican woman also sought help from western health practices if her illness got worse but particularly with preventative measures such as immunisation. However, while this woman attempted to use an integrated pluralistic health approach, she was also at times faced with challenging

factors that interfered with her decision making in managing her illness. This included the level of health knowledge, health perspectives based on past experiences, cultural knowledge of home remedies, the illness knowledge to be able to identify which health system is appropriate for which illness, and the level of faith in the western health system, financial constraints, time, attitude and trust, immigration status, access and faith (Belliard & Ramírez-Johnson, 2005).

In another study by Blignault and Kaur (2020) considered that more work is required in the integration of western medicine and traditional health approaches to manage mental health conditions in most Pacific Island countries, for example the Cook Islands, Papua New Guinea, Samoa, Solomon Islands and Vanuatu. The authors further described that a new hybrid health model of mental health might involve traditional healers in the treatment of mental health particularly those who preferred to manage their mental health with both the western and traditional health practices (Blignault & Kaur, 2020).

2.2.4.3 DUAL-DICHOTOMOUS HEALTH APPROACH

A third health approach is described in the literature as a “dual” or “dichotomous” health approach. Dual means pertaining to two parts or things, or amalgamating two things together, whereas dichotomous means relating to two completely opposite ideas or things (Cambridge Online Dictionary). I use the term “dual” when an individual must access two health approaches that are similar, and that the person is inclined to amalgamate or blend these similar health approaches to form or construct a new health approach. On the other hand, I refer to the term “dichotomous” when a person accesses or tests two different health paradigms for example the western health practice and the individual’s traditional health approach, and makes a decision to choose one health approach over the other (Kim, 2016; Ma, 1999), or is forced to utilise one health system (Kline, 2017). Unlike the pluralistic approach where a health consumer utilises more than two health practices, the dichotomous approach refers to the use of only two health approaches.

For example, Kim (2016), described the health seeking behaviours of Korean immigrants to New Zealand, she explained a dichotomous health pathway for them when they chose to visit Korea to access their own traditional health approach instead of using the New Zealand health system for their illness, or to access their Korean healthcare system because it was more affordable than the New Zealand healthcare system (Kim, 2016). Similarly, Ma, (1999) found that Chinese immigrants of Houston and Los Angeles would go back to their home-country for treatment instead of using the US health system (Ma, 1999). The author further added that the majority of the participants utilised a variety of their traditional Chinese self-treatments for example, traditional home remedies such as folk healing and a balanced diet, (Ma, 1999).

Equally, a case study on a Chinese immigrant in Australia showed that the immigrant initially utilised the Australian health system for his heart condition, but upon his discharge, he chose to utilise the traditional Chinese doctor in Chinatown instead of his general practitioner (Davidson et al., 2018). In the Chinese case mentioned above, this immigrant made his decision based on his cultural beliefs and health practices that were embedded in his culture and therefore turned to access his traditional Chinese medicine that was available in his host country of Australia. Some of the factors that were discovered by the primary nurse assessing this health consumer, were that he was not well informed about the importance of consulting his primary general practitioner, and there had been an assumption made by the health professionals that this Chinese immigrant was well informed about his health condition. However, given the fact that this immigrant had limited English and that health professionals were not aware of his traditional Chinese health beliefs and practices (Davidson et al., 2018), these might have contributed to his second admission to the hospital with heart failure.

In another study exploring care of Zambian mothers and their newborns mentioned earlier in the health perception section, revealed that traditional herbs are commonly used as one of the mother-newborn traditional care practices. However, mothers were reluctant to disclose their

use to their midwives, because health professionals in western health services did not allow mothers to use these in the hospitals or clinics (Buser et al., 2020).

Immigrants with undocumented status, non-legal residents or uninsured status in their host countries, have been reported as having no choice but to utilise a dichotomous health approach to manage their health. For instance, Kline (2017) underlined the impact of immigrants' health due to stringent policing and legal requirements for undocumented immigrants which forced this population to seek an alternative health approach from the western health service approach. The author further underscored how policing of migrants persistently put the immigrant population in a vulnerable position for health related inequalities and poor access to western health care services (Kline, 2017).

Uninsured Latino immigrants in the United States, whether documented or undocumented, were apprehensive of accessing the public health care services because they feared that they might be deported; the health care service was too expensive; or they faced difficulties in interacting with the public health system (Ransford et al., 2010). Due to the barriers encountered by the Latino immigrants such as the high cost of western health services, they decided to use their free indigenous health practices, or their local private low-cost clinics instead of the western clinics (Ransford et al., 2010).

From the reviewed literature on health practices that demonstrated a dual-dichotomous approach, I can relate to the Kiribati concept of making the kora, viewing one binoka as the Western health approach, while the other binoka refers to the indigenous health approach. In the case of I-Kiribati immigrants in New Zealand, like any other indigenous people whose traditional practices are embedded in their traditional practices, I-Kiribati are likely to uphold their traditional concept of the mauri, to maintain their health and wellbeing. It is possible that I-Kiribati navigate their traditional health practices and the Western health system in New Zealand, thus displaying a dual-dichotomous health approach and they may return to Kiribati to

access their traditional health practices. The next section will provide a description on acculturation and adaptive health approaches.

2.2.4.4 ACCULTURATION-ADAPTATION HEALTH APPROACHES

The fourth health approach that emerged from the reviewed literature is the ‘acculturation-adaptation’ health approach. ‘Acculturation’ refers to the progression of learning to survive successfully in an unfamiliar culture while ‘adaptation’ is the process or action of being changed to suit a new environment, situation, or purpose (Oxford Online Dictionary). According to Belliard and Ramirez-Johnson (2005 page 273) “acculturation is often defined as the process of cultural adaptation into the dominant or majority group”. In this context, I use the term ‘acculturation-adaptation’ health approach to capture relevant literature that examined both the process of acculturation and adaptation among migrants and Pacific people to health systems in their host countries. Understanding acculturation patterns, progressions over time, factors that enable or halt acculturation are important to the establishment of appropriate health policies to target a marginalized and vulnerable migrant population (Schluter et al., 2011).

A recent literature review showed that whilst the notion of acculturation has been extensively used mainly in epidemiological research studies since the 1960s, the lack of a consistent theoretical definition of acculturation still exists (Schumann et al., 2020). This lack of a theoretical definition of acculturation creates operational inconsistencies in understanding the level of acculturation for migrants in their host countries which can lead to stigmatisation, vulnerability, and discrimination of immigrants (Schumann et al., 2020).

Whilst it is critical to understand the definition of acculturation and the link between behavioural patterns of an ethnic group of people and their individual associates during the process of their acculturation, it is also important to understand that acculturation entails complex concepts and long processes of cultural familiarisation from the culture of origin (A), to the culture of the new host country (B) (Berry, 1997; Berry, 2005). Complex concepts and long processes of acculturation for immigrants in their host countries put them at risk of experiencing different levels of psychological

and social-cultural stresses during their settlement in their new host country (Berry, 1997; Berry, 2005; Schumann et al., 2020). According to Tikhonov, Espinosa, Huynh and Anglin, (2019), they found that American migrants who were identified as having a stronger sense of identity as Americans, were reported to have a greater level of harmony in their host country of America. These migrants therefore experienced a greater level of balance between their ethnic culture and the culture of their host country and thus were progressing well with acculturation (Tikhonov et al., 2019). However, on the contrary, those migrants who were identified as having a weaker sense of American identity felt trapped between their ethnic and American identities, and therefore were vulnerable to cultural conflict which might have resulted in a sense of isolation and rejection (Tikhonov et al., 2019). Feeling isolated and rejected therefore, can be detrimental causing depression and anxiety, which was reported to be the case for those American migrants who were identified as having a weak American identity. In another study by Dillon, De La Rosa, Ibanez (2013) exploring the impact of acculturation between the Latino immigrants of the United States, revealed mental and social tensions among the Latino immigrants during their first two years of their arrival in the United States. The authors also reported that for some Latino immigrants, they experienced a decline in family cohesion over time that often associated acculturative stress, and those who assimilated into their host country showed a decline in their cultural values (Dillon et al., 2013).

It is important to measure and understand immigrants' sense of identity and belonging in their host country and identify factors that promote their mental health and wellness, and at the same time to measure their level of acculturation in their host countries. Agyekum & Newbold, (2019) in their study exploring African immigrants' sense of place in Canada, revealed a range of factors that enhanced their sense of belonging and mental wellness (Agyekum & Newbold, 2019). These included obtaining their Canadian citizenship, when the Africans had lived in Canada for over 10 years, those who had full time jobs, their residency, level of education, adequate income, type of housing, marital status, living arrangements, age,

mental health self-perception, those who were single and those with “a high-rise apartment” (Agyekum & Newbold, 2019, p. 195).

Models of acculturation have been introduced by researchers to understand how immigrants might have acculturated their original cultural practices to the cultural practices of their host countries. For example, Berry (1997) introduced four categories of acculturation. 1) marginalisation, which indicated a low chance of affiliating the immigrants’ original culture with that of the new host country; 2) separation, which indicated a high chance of affiliating with original culture; 3) assimilation, indicating the high chance of affiliating with the new culture; and 4) integration, the blending of migrants’ original practices with the practices of their new host country. These categories of acculturation strongly prompted migrants to affiliate with both their original culture and the culture of the host country (Berry, 1997). Berry further introduced a generic acculturation framework to understand the links between two important distinct acculturation levels that of cultural acculturation and psychological acculturation (Berry, 2005). Both these levels of acculturation can be experienced by individual immigrants influencing their beliefs and practices in their new host countries. For example as stated by Berry (2005), “cultural changes” or “behavioural shifts” may be different in migrants depending on their demographic, economic, and political circumstances, and challenges they encountered as they settled in their host country (Berry, 2005, p. 703). Belliard and Ramirez-Johnson (2005) in their study supported the notion of biculturalism among immigrants but rejected the notion of immigrant’s assimilation.

Studies also revealed that while immigrants were settling and adjusting to their new host countries, they are also adjusting to the health systems of their host countries. While they adjust to the health systems of their host countries, they often navigated between the two health worldviews, the western health approach of their host country and their ethnic traditional health practices and made decisions to manage their health and illnesses. (Lor, Xiong, Park, Schwei & Jacobs, 2017; Ransford, Carrillo, Rivera, 2010). As immigrants navigated between health practices, they might be accommodating the health systems of their host countries,

using their own traditional health practices, or blending the two health approaches. This was seen in Latino immigrants returning to their home country seeking help from their home country doctors in Mexico, at a cheaper rate, easier to access, more time for consultation, and perceived to be a more holistic approach than consulting their doctors in their host country (Ransford et al., 2010).

Lor, Xiong, Park, Schwei and Jacobs (2017) emphasised that while Hmong immigrants were accustomed to western health practices in the United States, their decisions to move from the use of western health practices to their traditional health practices, or to integrate their traditional shamanism, Christian faith and western medicine, the decisions were based on the effectiveness of the treatments and the physical evidence of a disease (Lor et al., 2017). The authors further described that depending on their definition and classification of the illness, for example, whether the illness was caused by spiritual effects or not, and how they assessed the effectiveness of the variety of treatment options, often led them to choose the most effective treatment option, or combined the two health paradigms (Lor et al., 2017). In the case study mentioned earlier about the pluralistic health approach practised by a Mexican immigrant woman who migrated to Southern California of the United States at the age of 35 years, the study findings were that while this Mexican immigrant acculturated with the United States social-cultural systems and supported the use of the pluralistic health system, she was drawn more closely to her traditional health practices while she was in the United States (Belliard & Ramírez-Johnson, 2005).

Another study by Zhang (2016), explored international Chinese immigrant students navigating between the western health system and their traditional Chinese medicine, and investigated how the participants made their decisions to choose between western medicine and traditional Chinese medicine to manage their health in the United States. The author's assumption was that the international Chinese students would have been, to a lesser extent, dependent on their traditional Chinese medicine and might have been more influenced by the American western culture (Zhang, 2016). However, the study revealed that the students faced challenges in

adjusting to the United States' health system including barriers such as cultural detachment, cultural lifestyle differences and structural barriers such as the language barrier, the high cost of health care, and prolonged or lengthy waiting hours/time to see doctors or for clinical appointments. The study findings uncovered that Chinese international students viewed western medicine as time efficient in nature, but were concerned about the nature of its various side effects on the body (Zhang, 2016). While the Chinese students faced barriers while navigating between the two worldviews of western and traditional Chinese medicine, they came up with strategies to overcome these barriers including "Self-Learning and Seeking Social Support" (Zhang, 2016, p. 369) and were able at times to adapt to the western cultural health systems.

Research also shows how Pacific people acculturate to the social-cultural and health contexts of their host country of New Zealand while they simultaneously maintain their ethnic identity. In the Schluter, Tautolo and Paterson (2011) study exploring Pacific mothers' acculturation in New Zealand it was revealed that those Pacific mothers who migrated to New Zealand with lower socio-economic backgrounds had lower New Zealand acculturation but higher Pacific acculturation. The study also showed that many of the first generation of Samoan and Tongan mothers were not assimilated into the European or western culture, kept their ethnic cultural orientation and identity for at least 12 years before their cultural orientation gradually diminished with each passing year and became assimilated to the New Zealand culture and identity but maintained close connection with their relatives through visiting their countries of origin and sending remittances to their family members in the islands (Schluter et al., 2017). Similarly, Cowley-Malcolm, Gao, Macpherson, Perese, Erick, and Sundborn (2011) showed that the TGG is still commonly practiced among the Tongans and Samoans mothers at a higher level compared to mothers from Niue and the Cook Islands. The reason being that Niueans and Cook Islands mothers hold New Zealand citizenship and would have lived in New Zealand for a longer period of time than the Tongan and Samoan mothers who are not eligible for automatic citizenship (Cowley-Malcolm et al., 2011). Equally,

Borrow, Williams, Schluter, Paterson and Helu (2011), in their study exploring the association between Pacific infant health risk and their mother's acculturation levels using Berry's classical acculturation model, the authors revealed that mothers who were integrators were classified as having good health outcomes, separators had good or reasonable health outcomes, and assimilators were classified as reasonable outcomes, whereas those who were marginalised had poor outcomes (Borrows et al., 2011). The authors further emphasised that the separators, those with increased Pacific Island ethnic cultural orientation and decreased New Zealand acculturation, had the greatest health outcomes with low infant and maternal risks, compared to those with weak cultural orientation (Borrows et al., 2011).

The concept of staying connected with families is one of the fundamental elements for Pacific people's health and wellbeing (Pulotu-Endemann, 2001). Pacific people's health and wellbeing is illustrated in the concepts of the Fonofale Health model which depicts the Samoan house with elements of the family as the foundation of the Fonofale, the roof representing the culture, and the four pillars representing the physical, spiritual, mental and 'other' health needs. This was also supported by Suaalii-Sauni, Wheeler, Saafi, Robinson, Agnew, Warren, Erick and Hingano (2009), highlighting the importance of incorporating the Pacific cultural values of spirituality, ethnic language, and the family support system to develop successful models of care for Pacific people (Suaalii-Sauni et al., 2009).

Studies revealed that family connectedness is perceived as a cultural obligation among Pacific families in New Zealand (Manuela & Anae, 2017; Paterson et al., 2008a) that involves Traditional Gift-Giving (TGG) such as sending remittances to family members in the Islands, to family members in New Zealand and to the church (Cowley-Malcolm et al., 2011; Paterson et al., 2008b). While TGG is considered an important cultural obligation (Cowley-Malcolm et al., 2011) it acknowledges Pacific ethnic orientation (Schluter et al., 2011). Studies have also emphasised that TGG caused financial constraints among Pacific families and therefore has impacted on

their social-economic status and thus ultimately impacted on their health and wellbeing (Cowley-Malcolm et al., 2011).

Apart from TGG, on the other hand, Pacific people in New Zealand stay connected in a more social-cultural context in New Zealand such as cultural ceremonies and festivals and feasting. A study examining a group of Tongan perspectives on their cultural rituals of *faikava*, cultural kava-drinking by Tongan males in New Zealand, has proven a positive effect on their socialization (Fehoko, 2015). The ritual practice of *faikava* was perceived as a way of reconnecting to their Tongan culture and reinforcing their identity as New Zealand born Tongans living in New Zealand (Fehoko, 2015). During the *faikava*, an informal learning environment took place among the Tongan men where stories were told by senior males, songs were sung in their native language, and rituals of drinking their local kava were performed (Fehoko, 2015). While this is a cultural practice for the Tongans in New Zealand, as a rejuvenating and reconnecting to their culture (Fehoko, 2015), the *faikava* can be regarded as an activity that promotes socialization, manages stress, reconnecting to their roots by singing in their own language, and at the same time it improves the Tongans' mental health and wellbeing.

The themes emerged from the reviewed literature examining acculturation and its impacts and relationships on immigrants and Pacific peoples' health and well-being, have given some insight into how I could weave the literature into the findings of this study, and how I could analyse the study participants' karaki.

The next section provides a literature review on barriers to access western health services for immigrants and Pacific people in their host countries. The second part describes a literature review on the barriers to access traditional health practices for indigenous people in their home countries. This will be followed by barriers to Pacific people and other immigrants in their host countries. The paragraphs below further explain in detail these barriers.

2.2.4.5 WESTERN AND TRADITIONAL INTEGRATIVE HEALTH PRACTICES

Across the world, there is a growing interest among researchers to explore how traditional healing practices could be integrated into the western health system. Despite the World Health Organisation (WHO) being steadfast in promoting integration of Traditional Medicine (TM) into western medicine (WM), and ongoing research to evidence safe use of TM, there is still more work to do (Qi, 2013) . Countries are encouraged to develop policies and regulations for TM at a national level to institutionalise and integrate TM into their western health services (Qi, 2013). Whilst this integration is seen as a way forward towards the delivery of a holistic health approach that is patient-centered, and assisting to meet universal health coverage, there are challenges faced by individual countries to implement this integration (Qi, 2013). These challenges range from the lack of empirical research to evidence the effectiveness and efficacy of the TM, lack of financial support to carry out relevant research, lack of monitoring systems to ensure safe practice, lack of health staff capacity building and education on TM, and the lack of policies and regulations (Qi, 2013). A study by Bligault and Kaur (2020), revealed that among the Pacific countries, only the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Tuvalu, had developed their national policies or had plans for TM, but they have not fully integrated these policies within their western health care services.

This section provides a literature review on selected relevant research studies that emphasised the implications of the integration of indigenous' or migrants' traditional health practices to the western health paradigm. The review also examines the underpinning traditional health beliefs and practices of indigenous people and migrants and how these contribute to providing holistic health approaches for indigenous people and migrants. The review also looked at the advantages, disadvantages, and opportunities of the integrative health system of traditional and western

health practices to improve health outcomes of indigenous people or migrants in their host countries.

Studies show that it is commonly seen nowadays that traditional healing is used alongside western health practices in mental health (Blignault & Kaur, 2020) and western counselling practices (Moodley, Sutherland and Oulanova, 2008). This is because there are important aspects of traditional health practices that are critical to the health and wellbeing of an individual that western medicine cannot offer. As structured in the bio-medical model, western medicine therefore has its own beliefs of definitions, causes, signs and symptoms, treatment options and interventions on health conditions that are based on science, and are scientifically proven (Longino et al., 2020). However, the bio-medical model could be too limited to deal with the cultural beliefs and values that might be perceived to be the causes of specific illnesses. For example, the Somalians' believed that illness is created by God (Assefa et al., 2021), for Ghanaians, faith plays a significant role in their perception of health and illness and use faith healers as their first option to cure and prevent diseases (Peprah et al., 2018). Many Pacific people believe that illnesses occur as a consequence of challenging the cultural *tapu* such as not obeying the god(s) (Finau et al., 2004) or are caused by supernatural powers. Challenging a cultural *tapu* practice is regarded as being disrespectful to the ancestors and therefore these can have consequences leading to illness (Finau et al., 2004). Thus traditional healing would be a suggestive treatment option involving connecting to the ancestors to ask for pardon and involving cleansing rituals (Barbara Burns, 2003; McGrath, 1999). Challenging or bridging the *tapu* can be detrimental to the mind, and therefore can cause a psychological imbalance that can affect the body and spirit. According to McGrath, (1999), traditional healers treat with holism whereas physicians treat illnesses according to the science and diagnosis of a specific disease. This notion was also supported by Moodley et al., (2008), emphasising that traditional healing offers a holistic approach to balance a mind and body, reset the unwell body to harmony and into a state of balance between the individual and the individual's environment. The

authors recommended the use of traditional healing to be integrated into western counselling “as a process of dual interventions for clients who engage traditional healing practices alongside psychotherapy” (Moodley et al., 2008, p. 153). This is important to meet the needs of the health consumers and to provide a holistic care approach to address the health consumer’s physical, mental and spiritual needs (Moodley et al., 2008). There is a strong connection between the mind, body and spirit (Moodley et al., 2008). An individual needs not only to be physically well, but to be mentally and spiritually well. However, to have a holistic wellness, the individual health beliefs and cultural values must be taken into account when it comes to treatment options.

Blignault and Kaur, (2020), in their study exploring the integration of traditional and Western health approaches in the Pacific Islands, also supported the integration of the two health paradigms to manage mental health conditions. The authors pointed out that ‘integrative medicine’ considers the blending of the traditional or complementary health approaches with Western medicine and should be used simultaneously or alongside each other to realise a holistic outcome (Blignault & Kaur, 2020). For example, the traditional healer would provide effective spiritual interventions that could alleviate symptoms of depression and anxiety. The authors further added that in Papua New Guinea, they commonly managed mental health clients with both the western and traditional healing practices, even for those clients who were not specifically given a cultural mental health diagnosis (Blignault & Kaur, 2020).

Studies show that indigenous people access both their indigenous traditional healing practices and Western medicine (Abdullahi, 2011; Macfarlane, 2009; Macfarlane, 2008; Mark et al., 2017), because the two health practices embrace a holistic care approach resulting in better health outcomes (Drost, 2019) than when WM only is utilised. For example, Abdullahi, (2011), highlighted the popularity of the use of both traditional medicine and western medicine among Africans across Africa, and suggested the need to regulate, rebrand and standardise traditional medicine, along with the establishment of mutual cooperation between the

traditional healers and doctors working in western medicine. This is in order to meet the health needs of those who depend on traditional medicine in Africa (Abdullahi, 2011). Aside from the benefit to indigenous people, Abdullahi (2011) also emphasised that integrating traditional health practices with western medicine would provide opportunities for doctors working in western medicine and the traditional healers to acknowledge and build on their strengths and weaknesses to address the needs of those Africans who depend on traditional healing practices. In addition, Abdullahi (2011), further highlighted that while TM connects with spiritual healing, the scientific phenomena must be included in order to provide physical treatment of an ailment (Abdullahi, 2011). Added to this was that while Abdullahi (2011) promoted the integration of western and traditional medicine, he also argued that "...the introduction of western medicine and culture gave rise to 'cultural-ideological clash' which had hitherto created an unequal power-relationship that practically undermined and stigmatised the traditional health care system in Africa..."(page 116).

Similarly, Macfarlane and Alpers (2009), in their study, found that Papua New Guineans (PNGs) also subscribe to both the WM and the TM approaches to manage their health and illnesses. However, while the WM assimilated cultural concepts and traditional health beliefs of the indigenous PNGs, the WM's interventions solely offered only the western interventions to treat health consumers' ailments (Macfarlane & Alpers, 2009). It is apparent that there is incongruence between what was theoretically laid out in the health policy and that implemented as interventions for health consumers. In order to provide a holistic health approach, health consumers must be well informed of both the WM and the TM when they access WM. Health professionals must not be biased to impose WM interventions but must have an open mind to understand the health practices of their health consumers when it comes to suggesting treatment options.

Equally, Durie, (2010) also supported the integration of WM and TM for indigenous Māori for mental health and believed that while WM has provided remarkable mental health treatments, WM does not essentially

have the answers to embrace health and wellbeing. Rongoa which is the Māori use of native medicinal plants, their extracts, and preparations, could be one aspect of intervention that the WM might need in terms of treatment options that are culturally appropriate for Māori (Durie, 2010). Marques, Freeman and Carter (2021) emphasised the use of Rongoa Māori that drew on the underpinning connection with Māori' cultural values and beliefs that are part and parcel of their health and wellbeing. These included “wairua (spirit), tinana (body), tikanga and whakaora (customs and healing), rakau (plants), whenua (landscape) and whanau (family)”, (Marques et al., 2022, p. 19). These concepts are important because they underpin a holistic model of care for Māori in Aotearoa New Zealand.

Another issue that was also revealed in the literature about the integration of the western and indigenous health systems, was that both the western and traditional health practices work in separate ways, disconnected from each other, and therefore result in unmet health needs of indigenous people who live in their home countries, (Drost, 2019; Hilgenkamp & Pescaia, 2003; Macfarlane & Alpers, 2009; Marques et al., 2022; Norris, Fa'alau, et al., 2009) or those indigenous people migrating to live in host countries (Andrews et al., 2013; Ransford et al., 2010).

The mentioned advantages, disadvantages and implication of an integrative health system have shed light on how I-Kiribati might navigate between health practices, and to integrate their traditional health practices.

2.5 BARRIERS TO ACCESS WESTERN HEALTH CARE SERVICES.

A large number of existing studies and reports in the broader literature review have reported barriers to western health care services for immigrants in their host countries (Asad & Clair, 2018; Choi, 2013; Clough et al., 2013; Fleischman et al., 2015; Lopalco, 2018; Ransford et al., 2010; Schmidt et al., 2018; Tyson et al., 2016), and Pacific people living in host countries (Fuimaono et al., 2019; Jameson et al., 1999; Nosa et al., 2018; Sligo et al., 1998; Southwick et al., 2012; Tanuvasa et al., 2013). These reported barriers ranged from the language barrier, poor health literacy, undocumented immigrants, lack of knowledge on western interventions,

perceived discrimination, financial difficulties to meet the costs of health and health insurance, different cultural health beliefs and practices, and experiences of being treated unfairly by health staff.

Language barriers and cultural differences were seen as the major determinants of health in Korean immigrants to Hawaii (Choi, 2013), and also Asian immigrants in the United States (Clough et al., 2013). Immigrants to Israel were reported to encounter barriers that were directly brought about by their illegal migration status, the language barrier, and discrimination, resulting in low-income jobs (Fleischman et al., 2015). Equally, Schmidt, Fagnoli, Epiney and Irion (2018) also reported barriers to access reproductive health services for immigrant women in Geneva included unaffordable costs, language barriers, perceived or real discrimination, inadequate information and embarrassment (Schmidt et al., 2018).

Fear of deportation, unclear or inconsistent migration regulations therefore put immigrants to Israel in a vulnerable position for accessing health care, (Fleischman et al., 2015).

Similarly, Lopalco, (2018) pointed out that most of the children of immigrants in most European countries were also reported having failed to access vaccination opportunities because of the language barriers, undocumented status, and the lack of education on vaccines. The author also emphasised that these unvaccinated children came from deprived families with low incomes (Lopalco, 2018).

Additionally, discrimination was also revealed as one of the barriers to access health care services for immigrants (Asad & Clair, 2018; Kapeli et al., 2020; Rodríguez-Álvarez et al., 2017). Migrants who reside in Israel perceived that they were being dealt with by health professionals as a *disease* rather than people with a disease (Fleischman et al., 2015). This mistreatment could be a result of “the structural and psychosocial pathways” leading to a variety of “legal and extralegal burdens that implicate” the health of immigrants (Asad & Clair, 2018, p. 22). The authors further emphasised that the racial status of immigrants’ is a determining factor of health that can disadvantage immigrants from accessing health

care services (Asad & Clair, 2018), which in turn results in poor health outcomes (Kapeli et al., 2020)

In addition to discrimination, the lack of health insurance among immigrants has been reported by several studies as another factor that has impeded immigrants from accessing health care services in their host country. Clough et al (2013), revealed that Asian immigrants in the United States were less likely to have health cover than White Americans. They were also faced with challenges such as the language barrier and the unavailability of interpreters as well as unfairness and inequality of healthcare. These experiences often resulted in immigrants receiving a lower quality of health care, patient satisfaction, and poor follow up care (Clough et al., 2013). In another study of Latino immigrants to Florida, it was revealed that there was a high prevalence of depression among this Latino immigrant population, most of whom were also reported to under-utilise mental health services in Florida (Tyson et al., 2016). Tyson et al (2016, page1294) further described that “immigration status was seen as a barrier particularly for those who were undocumented and did not access services for fear of deportation”.

Most studies on the health of immigrants showed that immigrants bring with them their cultural health beliefs and practices, that often influence their decisions to access their preferred health approach (Bartlett et al., 2012; Codjoe, Byrne, Lister, McGuire, & Valmaggia, 2013; Kong & Hsieh, 2012; Zeid et al., 2019). Health beliefs and practices of immigrants are embedded in their inherited culture. These health beliefs and practices inform their health seeking behaviour. For example, Martin, (2009) explored how Iranian immigrants in the United States conceptualised the meaning of their mental health-related issues. The study found that Iranian immigrants were hesitant to access western mental health services because of the differences in their cultural perceptions, the language and the use of unfamiliar illness definitions and medical terminologies (Martin, 2009). The study also revealed the lack of trust among Iranian immigrants with regard to the use of mental health treatments (Martin, 2009).

In addition, like any other immigrants moving to a host country, several studies revealed Pacific peoples coming to New Zealand also face similar barriers when accessing health care and challenges as migrants to New Zealand, as did those Pacific people who were born and raised in New Zealand. For example, a study by Anderson et al (2019) examining Pacific and Māori peoples' access to secondary prophylaxis treatment for rheumatic fever in New Zealand revealed incongruity in the health delivery model, relational approaches, and the care of the adolescent. The authors suggested accessible appropriate delivery of prophylaxis treatment regimens that were community-culturally appropriate, and adolescent centered (Anderson et al., 2019). Another recent study revealed poor access to palliative and hospice care services for Pacific people in New Zealand (Foliaki et al., 2020). The authors pointed out the following factors affecting Pacific people's access to the service included negative perceptions of palliative care, lack of correct information, constant change in family roles as caregivers, past experiences of hospices, community continuity care services and the need for effective communication (Foliaki et al., 2020).

Other studies on Pacific peoples' access to a variety of health care services include access to reproductive and maternal health (Jameson et al., 1999; Nosa et al., 2018; Sligo et al., 1998; Tanuvasa et al., 2013), access to primary health care services (Lockett et al., 2018; Pack, 2018; Southwick et al., 2012), access to oral health care (Smith et al., 2019), and access to renal services (Fuimaono et al., 2019). The findings of the study evidently revealed that Pacific people in New Zealand echoed the challenges and barriers to access health care services that other immigrants faced in their host countries. These common barriers included language barriers, health literacy, the high cost of health services, unaffordable health insurance or health cover, illegal status, undocumented migrants, and discrimination. However, the focus of the above studies was identifying barriers to access western health services rather than exploring barriers to access their traditional health practices of Pacific people.

Whilst the studies mentioned above evidently revealed barriers to access western health care services for Pacific people, other studies evidently provided links between poor access to western health care services and poor health outcomes for Pacific people. This was true in a recent study by Kapeli, Manuela and Sibbey (2020), exploring the relationship between the perceived personal discrimination and the health outcomes of Pacific adults in New Zealand. The study findings confirmed that perceived discrimination was persistently and extensively anticipated resulting in poor health outcomes (Kapeli et al., 2020). The authors further elaborated on the two categories of perceived discrimination: personal discrimination which was closely linked with poorer health outcomes and associated with higher mental distress and lower self-esteem. While on the other hand, group discrimination was connected to poorer wellbeing but stable health outcomes (Kapeli et al., 2020). However, a recent study by Armenta and Sarabia (2020) revealed that while undocumented Mexican immigrant women of Philadelphia were faced with significant challenges in accessing western health care services, they persistently accessed and sought medical help from the western health services. In addition, the authors suggested that the Mexican immigrant women's negative or positive experiences in accessing the western health approach could contribute to their decision to maintain a persistent use of the western health approach or a cutback in their usage of the western health approach (Armenta & Sarabia, 2020).

Aside from the barriers to access western health services, like many other immigrants around the world, Pacific people continuously face significant social-economical and health challenges, whether as Pacific first generation, second or third Pacific generation migrants of Aotearoa New Zealand (Statistics New Zealand and Ministry of Pacific Island Affairs, 2011). Most Pacific people who migrated under the Pacific Access Category, Samoan quota, or family category were generally well for the first three years after their New Zealand residence was approved, however, they were still being reported as facing challenges including finding appropriate employment, housing, access to education, establishing new social and

community networks, and at the same time trying to adapt to the multi-culture of New Zealand (Sin & Ormsby, 2019).

Reports show that the majority of Pacific peoples are being categorised as having a lower educational background than their European New Zealand counterparts (Statistics New Zealand, 2010). This educational status led to most Pacific peoples receiving low income wages resulting in poor health outcomes (Southwick et al., 2012; Statistics New Zealand, 2010). In addition, Pacific people have a higher rate of hospital admissions than non-Pacific peoples in New Zealand. For example, a recent study showed that Pacific people including Māori have higher hospital admission rates and mortality rates than Europeans in non-communicable chronic diseases including diabetes, cardio-vascular diseases, and cancer (Yu et al., 2020). Late presentation of Pacific people to the health care services for treatment was underscored by another study resulting in hospital admissions due to skin infections (Ete-Rasch & Nelson, 2013). In another study on *The perspectives of Samoan patients and health professionals about access to renal services in New Zealand* also described that poor access to renal services involved complex pathways for Pacific people before they eventually access renal services (Fuimaono et al., 2019, p. 11). The authors underlined that Samoan renal patients faced poor access to renal services due to patients' movements between New Zealand and their home country of Samoa, ineffective communication or miscommunication, patient's lack of understanding of the kidney condition, and their traditional beliefs and practices, all of which affected their pathways to the renal services. These complex pathways therefore resulted in late acute presentation of Pacific patients to the renal service.

Pacific people living in host countries were often marginalised and are faced by health determinants; unmet health needs, challenges and difficulties to access western health services, delayed presentation to primary or secondary health care services, and they have a lower health literacy than the general population of their host countries. These difficulties are also experienced by Pacific people living in New Zealand (Lilo et al., 2020; Sopoaga et al., 2012; Southwick et al., 2012; Statistics New Zealand,

2010). Research studies on Pacific peoples' health perceptions and health practices are encouraged to shed light into these determinants of health particularly and to see if there are relationships between the health worldviews and these determinants of health (Fuimaono et al., 2019; Norris, Churchward, et al., 2009; Norris, Fa'alau, et al., 2009; Sopoaga et al., 2012).

In addition, the traditional perceptions of the illness embedded in individual Pacific cultural beliefs and values can also be a barrier to access western health services. A study by Norris, Fa'alau, Va'ai, Churchward & Arrol (2009), found that Samoans actively used their cultural interpretation of illness to differentiate between a Samoan or western illness. Based on this interpretation, decisions were often made with a family regarding the best treatment option for the illness (Norris, Fa'alau, et al., 2009). Another study by Barnes, Moss-Morris and Kaufusi (2004) determined cultural variances between European and Tongan health consumers with type 2 diabetes on how they conceptualise their diabetic illness and treatment. The study found that the majority of the Tongan participants perceived their diabetic condition to be a consequence of external causes including a polluted environment, the will of God and poor past medical interventions, and that their diabetes was recurring and more acute in nature than the European patients (Barnes et al., 2004). This study underscored the need to understand Pacific people's illness perceptions as one avenue to improve self-management of diabetes (Barnes et al., 2004).

In the Southwick et al (2012) report, the need to understand the different health-illness worldviews of Pacific people among the sample groups of Pacific people from the Cook Islands, Fiji, Niue, Kiribati, Samoa, Tonga and Tuvalu was examined. These different Pacific health worldviews ranged from eating a healthy diet, to the need to do exercise, to having adequate sleep and rest, to the importance of practising good hygiene, living in good housing, and having good family support. All these were crucial features for a healthy lifestyle (Southwick et al., 2012). The authors also identified factors that affected their access to health care services, including the high costs of health care services, language barriers, and

exposure to unfamiliar western social, cultural and health systems (Southwick et al., 2012). In addition, the authors also underlined the importance of understanding health worldviews and social-cultural backgrounds of Pacific people by health professionals, as their unfamiliarity with their Pacific health consumers could lead to misinterpretation and misconception about their individual health perceptions and practices. Therefore, attention must be paid to fill in the knowledge gap in both directions and thereby decrease assumptions which might lead to generalizing, misinterpretation, and misconception.

Additionally, other studies to investigate equality and equity of health care services among Pacific people have been promulgated. For example an epidemiological study that was conducted between 2000 and 2018 to determine the rise in ethnic inequalities in acute rheumatic fever and rheumatic heart disease in New Zealand, underlined that Pacific people were markedly at high risk, particularly those within the age range of 10 to 14 years, who were living in social-economic deprivation (Bennett et al., 2021).

The challenges and the barriers to access health care services for immigrants and Pacific peoples underline why it would be useful to understand the ways in which I-Kiribati might have faced difficulties in accessing health care services and the challenges they might encounter as relatively new immigrants to New Zealand, and how they might have navigated between western health approaches and their Kiribati traditional health practices. While these studies resonate with some of the I-Kiribati cultural practices in New Zealand, each Pacific ethnic group has their own unique cultural health worldview. This current study provides a broader understanding of the specific perspectives of I-Kiribati on health and illness, and the barriers to accessing both western and Kiribati traditional health practices. This current study also provides a better understanding of how, when and why I-Kiribati navigate between their cultural health and illness practices and western medicine.

CHAPTER THREE: RESEARCH APPROACH

Every researcher speaks from within a distinct interpretive community, which configures, in its special way, the multicultural, gendered components of the research act (Denzin & Lincoln, 2017, p. 16)

3.1 METHODOLOGY

This research employed a qualitative research approach to understand meanings of reality as experienced, described and interpreted (Jackson & Borbasi, 2008; Whitehead, Dilworth & Higgins, 2014) by a sample group of I-Kiribati study participants living in New Zealand. The central focus of this research is to uncover the meaning of subjective experiences and draw upon holistic phenomena of human realities rather than concrete objective realities (Whitehead & Whitehead, 2014; Erlingsson & Brysiewicz, 2012). In an indigenous population, qualitative research must respect and elicit participants' indigenous epistemology (Kovach, 2018) and draw authentic meanings of participants' experiences in a natural setting (Whitehead & Whitehead, 2014). Kovach, (2018) pointed out the importance of understanding and incorporating indigenous epistemological knowledge that encompasses beliefs about knowledge, along with the theoretical principles about values, beliefs and behaviours that shape their individual-communal etiquette and protocols (Kovach, 2018).

I decided to use the same research framework that I used for the literature review; the Kiribati cultural metaphor of making *te kora*, the traditional Kiribati string as already described in Chapter 2. This is important to ensure that I expand the parameters of a traditional western qualitative research to understand I-Kiribati immigrants navigating between their traditional health practices and western medicine in New Zealand. This research methodology is not without precedent or influence from other Pacific research methodologies. Five research methodologies developed by Pacific research scholars have helped me to develop *te kora* conceptual framework: The *Samoanisi* methodology by Faasalele Tanuvasa (2000), the Fa'afaletui by Tamasese and Peteru (2002), the *Kakala* by Thaman,

(2003), the *Talanoa* by Vaiioleti, (2006), and the Tivaevae by Maua-Hodges (2016). In addition, I also examined the Kiribati concepts of the two existing Kiribati frameworks including *Boutokaan te mweraoi* (Ministry of Social Development, 2015) and the *neo-maneaba framework* (Namoori-Sinclair, 2020) as the concepts of these two frameworks are important general day to day cultural concepts that are embedded in the Kiribati culture, that also resonate with my Kiribati worldviews.

3.1.1 PACIFIC RESEARCH METHODOLOGIES

These Pacific research scholars pointed out that traditional western research methodologies are not suited for exploring and eliciting the authentic worldviews about Pacific peoples. For example, Faasalele Tanuvasa (2000) claimed that a western research approach “did not present the truth of Samoan thinking” (Tanuvasa, 2000, p 24), and therefore developed a *Samoanisi* research methodology that is philosophically based “from within the *fa’asamoa* – the Samoan way of life” (Tanuvasa, 2000. p.24). This *Samoanisi* methodology was designed to elicit “a unique knowledge embedded in *fa’asamoa*, nourished by language, land and culture” (Tanuvasa, 2000. p 25).

Similarly, the *Fa’afaletui* is another research methodology that was also metaphorically developed by Tamasese, (2002) using the meaningful Samoan nuance of *fale* which means house and *tui* which is weaving (Milner, 1966). The *Fa’afaletui* research methodology is applicable to focus groups from a selected family *fale* or house (Tamasese and Peteru, 2002). *Fa’afaletui* therefore captures how knowledge is gathered and validated within a Pacific household or a specific Pacific cultural group. The process of the *Fa’afaletui* involves members of the *fale* or group in weaving, threading and rethreading of the information until members of the *fale* reach consensus of the specific emerging knowledge that is authentic and demonstrates the common experiences of the group (Tamasese et al., 2005). While the authors claim that the *Fa’afaletui* is a rigorous research methodology given its strong nature of weaving the collective knowledge gained from the members of the Samoan *fale*, they also claim that the

Fa'afaletui research methodology can be used to research other Pacific ethnic groups (Tamasese et al., 2005).

Equally, Thaman (1997; 2003) developed the *Kakala* research methodology from her Tongan cultural perspective. She also claimed that exploring Pacific peoples' worldviews from the standard western research perspectives may not be suitable to elicit authentic, epistemological knowledge and meaning of lived experiences of Pacific peoples. *Kakala* is a Tongan cultural practice which involves the selection of specific fragrant flowers (*toli*), the arrangement and weaving of flowers (*tui*), hence the process of weaving the *Kakala* (a Tongan garland) by women and (*luva*), the gifting of the *kakala* to a special person at a special function (Thaman, 1997; Thaman, 2016). The application of the process of making the *Kakala* as a methodology in researching Pacific people's worldviews and practices brings strong connection to the Pacific culture and contextualises more meaningful relevance to Pacific peoples' needs (Thaman, 2016). Thaman (2016), emphasised that one of the most appropriate ways to address and understand challenges faced by Pacific people and their worldviews was to be creative in attuning the best of both the western and the Pacific values to better contextualise both research and education (Thaman, 2016). While the *kakala* originated from the Tongan culture, it has been used as a research framework with evidence that the research brought about meaningful voices for the Pacific people under study (Fua, 2014; Malungahu et al., 2017; Vatuvei, 2017).

In the same way, Vaioleti (2006) also claimed that western traditional research approaches "are unlikely to have values and lived realities that allow understanding of issues pertaining to knowledge and ways of being that originated from the *nga wairua* (spirits) and *whenua*" (p. 22). Vaioleti (2006) developed a *Talanoa* research methodology approach, from a Tongan perspective, meaning to converse, talk or tell stories, and elicit more *mo'oni* or authentic rich meaning of Pacific peoples' worldviews (Vaioleti, 2006). Through Pacific participants telling their unique stories in their preferred language, stories that are embedded in their cultural lens and lived experiences, this methodology complements and supports western

qualitative research in eliciting authentic Pacific cultural perspectives which at times may not be authentically drawn from Pacific participants using western research methodology. There was evidence in one study that the *Talanoa* research methodology was effective in eliciting rich descriptive and valuable data as well as capturing the cultural values of participants (Otunuku, 2011).

Likewise, the *Tivaevae* is another research methodology. This is a Cook Islands research model that was developed by Maua-Hodges in 2000 (Te Ava & Page, 2011). The *Tivaevae* is a Cook Islands traditional quilt or coverlet, designed by a group of women where each woman brings different needle work patterns to sew onto the quilt (Herda, 2011). The making of the *Tivaevae* is a collective activity of women who gather together and decide on the needle work patches they design to put on the *tivaevae*. The different designed needle work patches represent the epistemology and ontology of the Cook Islands worldviews, as they are arranged and patched on the quilt, these tell unique stories of the group of women who design the *Tivaevae* (Futter-Puati & Maua-Hodges, 2019). In research, the process of making the *Tivaevae* is used as a metaphor to guide the research process of collecting the data, data analysis, and interpretation of findings (Futter-Puati & Maua-Hodges, 2019). This was illuminated by Futter-Puati and Maua-Hodges (2019) study in which they asserted that the appropriateness and relevance of the *Tivaevae* as a culturally fitting research methodology involved “participation,... discipline,... patience,... humility,... obedience,...community involvement,...Cook Islands Māori language,... and physical and spiritual wellbeing” (Futter-Puati & Maua-Hodges, 2019, p. 6).

While these Pacific research methodologies resonated in my thinking of wanting to use a Pacific methodology to elicit authentic and meaningful results for the Pacific population I intended to study, I felt that using any of these five Pacific research methodologies that are grounded in the Samoan’s, Tongan’s or the Cook islands’ perspectives in my study would not elicit rich and meaningful information to understand the unique cultural identity, health perceptions and practices of I-Kiribati, a group of Pacific

people who are unique in their own identity, language and culture from other Pacific peoples in New Zealand. These Pacific scholars' works have also helped me to develop a specific conceptual framework that is centered in the specific worldview of the I-Kiribati population I wanted to study. I decided then to develop a conceptual framework of *Te kora*, a cultural practice of making the local string in Kiribati. The cultural practice of making *Te kora* is relevant and meaningful with the use of the Kiribati nuances and the use of the cultural metaphors that are fundamental to the Kiribati culture. The use of *Te kora* as a metaphor for this research is not only meaningful to myself as an I-Kiribati researcher but also to the indigenous I-Kiribati whose health experiences I intended to explore.

From an epistemological and ontological point of view, I strongly believe that there is a need as a starting point, to use the research framework that is familiar to I-Kiribati participants. The use of *Te kora* as a metaphor in this research process not only aided in eliciting authentic and profound meaning of the research process from the Kiribati perspective, but it also made it easier for the I-Kiribati participants to understand the research process. This was evidently noted by some of my participants, when I explained how I used the cultural practice of making *te kora* as a metaphor as they told their *karaki* about navigating health practices, viewing one *binoka* as their Kiribati traditional practice and the other *binoka* as the western health practices, and how I metaphorically used the concept of twisting these *binoka* to make *te kora*, as in managing their health and wellbeing. Participants of the study appreciated and valued the use of Kiribati cultural practice of making *te kora* as a research methodology. The ideology of valuing and incorporating indigenous cultural practices and language was supported by other researchers. For example, according to Keikelame and Swartz, (2019), they pointed out that the application of alternative research approaches specifically to a marginalised population was essential, firstly to elicit the essence of the phenomena through a culturally appropriate research approach, and secondly to improve the health outcomes of the target population (Keikelame & Swartz, 2019). Similarly, Nabobo-Baba, (2008) claimed that it was important to see the

growing interest among Pacific people who were keen to describe and express their beliefs and preferences around the process of gathering, processing and disseminating knowledge taking into account the language, philosophies, processes, procedures, and protocols that best suit indigenous study participants (Nabobo-Baba, 2008).

In addition, as mentioned in the introduction, I also reviewed two of the emerging Kiribati frameworks that emerged from the work of I-Kiribati in New Zealand. These frameworks include: “*Boutokaan te mweeraoi*” (Ministry of Social Development, 2015) and the “Neo-maneaba” framework (Namoori-Sinclair, 2020). *Boutokaan te mweeraoi* which translates as “the supporting beams or structures for uplifting or enhancing wellbeing in the home”, is a conceptual framework developed by a group of I-Kiribati for enhancing I-Kiribati wellbeing in an attempt to stop domestic violence within a Kiribati family (Ministry of Social Development, 2015, p. 8). The *Boutokaan te mweeraoi* framework has four elements that are embedded in the Kiribati culture, these include *te karinerine* (respect), *te katei* (culture), *te toronibwai* (survival skills of self-reliance) and *marin abara* (environmental and ecology resources) (Ministry of Social Development, 2015, p. 8). These elements are embedded in Kiribati cultural daily life and are part and parcel of their existence as I-Kiribati. As part of I-Kiribati existence, the elements of the framework make it easier for I-Kiribati to make sense of the framework and how they might utilise it to uplift and enhance their health and wellbeing in New Zealand.

Te mwaneaba, representing the Kiribati meeting house, has been documented in some of the literature about Kiribati customs and traditions (Autio, 2010; Cameron, 2014; Maude, 1989; Ministry of Social Development, 2015; Namoori-Sinclair, 2020; Teatao, 2015; Whincup, 2010). *Te mwaneaba* entails a set of hierarchical systems that encompasses the Kiribati values of honour, sacredness (tabu), respect and has stringent protocols that must be followed by those who use it. A recent study emphasised the application of the *maneaba* protocol system as a framework to better understand the cultural impediments affecting the health and wellbeing of I-Kiribati immigrants who attempted to gain New

Zealand residency under the Pacific Access Category (PAC) (Namoori-Sinclair, 2020). Namoori-Sinclair (2020) proposed the *Neo-maneaba* health and wellbeing model as an integration of the principles of the maneaba cultural protocols and the neoliberal governmentality to assist policy makers to meet the needs of I-Kiribati who migrate under the PAC policy.

3.1.2 TE KORA: THE EMERGING KIRIBATI RESEARCH FRAMEWORK

After a careful review of the Pacific research frameworks, and because the nature of my research was to understand the health practices of I-Kiribati in New Zealand, bearing in mind that I would explore their use of traditional health practices and the western health approach to manage their health, I therefore, chose to approach the phenomena of how I-Kiribati immigrants practice health in New Zealand by using a qualitative research that is metaphorically framed by the Kiribati cultural practice of making *te kora*. The process of making *te kora* includes a number of important symbols about the structure of Kiribati society and the cultural practices of I-Kiribati that reflect I-Kiribati health and wellbeing in general. These include family and gender responsibilities, passing of traditional knowledge and skills from one generation to the next generation, family communal efforts, and celebrations. Therefore, *te kora* model incorporates four important cultural values that align with the Pacific Health Research Guidelines when exploring human phenomena of Pacific peoples: communal relationships, respect, reciprocity, and holism (Pacific Health Research Guideline, 2014).

3.1.3 THE SIGNIFICANCE OF TE KORA AND ITS APPLICATION

One of the research objectives of this qualitative research study was to develop a culturally appropriate research methodology that could be used to elicit rich and meaningful data from the study participants to understand the health perception and practices of I-Kiribati immigrants in New Zealand. As detailed in the previous section of this chapter, the emergence of *te kora* research as a conceptual research framework was inspired by a number of Pacific scholars who believed that the integrity and trustworthiness of researching issues pertaining to indigenous Pacific peoples was central to

the use of the most culturally appropriate research framework (Helu-Thaman, 1992; Maua-Hodges, 2016; Nabobo-Baba, 2008; Tamasese et al., 2005; Tanuvasa et al., 2013; Tanuvasa Faasalele, 1999; Thaman, 2009; Vaiioleti, 2006, 2016). Integral to the most culturally appropriate framework for indigenous Pacific people under the study was the use of language and nuances familiar to the study participants so they could easily contextualise their own thoughts and worldviews rather than solely using a western research health model. This was supported by Nabobo-Baba, (2008), who argued that using integrity and obtaining trustworthy research results when researching indigenous Pacific peoples, could only be found by researching the indigenous people's language, their cultural values, protocols, and philosophies, and that their tribes' related issues must be acknowledged and taken into account (Nabobo-Baba, 2008). Therefore, the use of *te kora* research methodology to investigate how I-Kiribati immigrants navigate between health practices to manage their health and illness in New Zealand is imperative, not only to complement the western qualitative paradigms, but to ensure the voices of I-Kiribati immigrants are elicited in the most genuine and authentic manner.

Te kora research methodology is specifically designed to underpin the pure qualitative research approach to understand how I-Kiribati navigate between their Kiribati traditional health practices and the western health approaches. Similar to the values and contributions that the *Samoanisi*, *Kakala*, *Fafaletui*, *Talanoa* and *Tivaevae* research methodologies have made to the body of research knowledge in health, nursing, midwifery, and Pacific studies, and as well as decolonising Pacific research methodologies, *te kora* provides an excellent contribution to the wider national and international research knowledge by uncovering the I-Kiribati cultural traditions that reflect their health perceptions and practices in New Zealand.

Te kora research methodology therefore illuminates not only the traditional cultural practice of making *te kora* as a metaphor to understand how I-Kiribati navigate between their Kiribati traditional health practices and the western health practices, but it also contributes to understanding the research approach from an ontological and epistemological perspective and

to make meaning of the use of the indigenous Kiribati cultural practice of making *te kora*. Equally the benefits of using the Kiribati language and nuances captured the essence of the meaning of the research for both myself as an I-Kiribati researcher and the participants in the study. This made the research run smoothly as I-Kiribati participants used their own native language to express themselves and tell their *karaki* in the most authentic and meaningful way. The use of the indigenous Kiribati language, nuances, and the cultural practice of making *te kora* in the study also aided in uncovering trustworthy results of the study. Other significant Kiribati words were also included in the method such as *anoiko maroro* (the form of the recruitment strategy), the *maroro* as the method of collecting data, and the *karaki* (story) as the data.

The use of *te kora* research methodology is not limited to understanding I-Kiribati health practices only, but it can also be used as an option for researchers who want to investigate specific I-Kiribati social, health and cultural issues in future. In this vein, *te kora* research methodology can also be used as a research methodology to explore other Pacific ethnic groups' social, health and cultural issues as most Pacific ethnic population groups can relate to or have their own version of the practice of making of *te kora* from coconut husks.

Te kora framework was successful in producing evidence of the participants' understanding of health and illnesses, how, when, and why they navigated between their Kiribati traditional health practices, western medicine and other health practices, their health-seeking behaviours, and traditional health practices for specific illnesses. *Te kora* framework was carefully applied in a culturally appropriate manner to ensure a culturally appropriate recruitment process, elicit robust data collection and interpretation of data. This process will be further discussed in detail in the method section.

The benefits of employing *te kora* methodology and the methods of research were that these reflected Kiribati cultural practice and that the language used created a meaningful and more familiar context for the I-Kiribati participants being interviewed as most would be unfamiliar with an

academic research process. The benefits highlight how *te kora* research methodology associates with other similar Pacific research methodologies and methods.

It was critical that *te kora* framework underpinned both the principles of western research ethics, Pacific ethical principles, and the epistemological beliefs and values of I-Kiribati cultural etiquette. The next section discusses how *te kora* model supported the fulfilment of the above principals and beliefs and how these are interwoven to provide the most acceptable approach for exploring I-Kiribati participants' health worldviews and practices to manage their health in New Zealand.

3.2 RESEARCH METHOD: APPLICATION OF TE KORA FRAMEWORK

The preparation of *te kora* requires communal effort, calling upon family unity, connectedness, sharing of knowledge and skills, and specific gender responsibilities. As mentioned in chapter two, the process of making *te kora* was used as a framework in both the literature review and the methodology. The process of making *te kora* is applied in this research methodology in the following order:

Phase one is when a family first does surveillance to inspect their lands and their plantations (*tarakai*), which are mainly coconut trees, to find suitable green coconuts to be dropped from the trees for making *te kora*. This is when the initial conversation (*maroro*) starts within the family for organising specific gender responsibilities, sharing of workloads, and at the same time encouraging family connectedness, unity and the sharing of knowledge and skills. The *maroro* continues throughout the process of making *te kora*. The selection of the right type of green coconuts to be detached at the right time is crucial because the family do not want to drop unnecessary young coconuts that are not suitable for making *te kora* because this would be wasteful. After a successful *tarakai*, young men of the family are responsible for climbing the selected coconut trees and carefully select bundles of green coconuts to drop (*aneane*) that are nearly ripe (*amakai*); this is when their kernels are moderately hard, and its

coconut water is acidic. Aneane is quite a skill for young men to do as firstly, they need the skill necessary to climb coconut trees of about 4-6 metres high, and secondly to carefully tread the selected coconuts with their feet from the coconut spathe, and at the same time making sure that the young green coconuts (*nimoimoi* or *raa*) remain left untouched. When the corresponding *tarakai* and the *aneane* are applied to the research process, the researcher does a careful surveillance of the practical problem, the rationale for the investigation and the beneficiaries or those who will benefit from the results of the research. Selected relevant information such as knowledge, experiences, and other required materials are then gathered for the investigation of the phenomena in question.

Phase two is *koromrom*, this is when the green coconut husks are then separated from the coconut shell. The *koromrom* is normally done by men. The coconut shells are kept for the family members' food and drinks, while the husks are put in non-plastic bags, weighed down with big rocks and placed in holes dug in the lagoon (*taobenu*). When the *koromrom* concept is applied to the research process, the researcher scrutinises relevant information for the research, but at the same time, the researcher separates his / her pre-existing feelings, cultural knowledge and experiences from the topic under investigation. For example, the researcher considers whether to include self-observation within the research process to be able to acknowledge participants' stories that are intense and be able to deal with this data in a professional and culturally appropriate manner. The researcher also needs to know the community that is under study, and be mindful of issues, particularly those surrounding confidentiality when working with a small community. *Koromrom* also applies to the first stage of the initial recruitment of participants who meet the inclusion criteria of the research study. Phase two also involves the concept of *taobenu*. This is a lengthy process, where the coconut husks are soaked in the sea or lagoon for at least three months. When this concept is applied to research, the researcher negotiates and incorporates ethical considerations, Pacific research ethics, and Kiribati cultural etiquette to ensure reliable and

trustworthy results. These will be described further in the ethical-cultural consideration section.

Phase three includes the *tiribenu*, when women remove the soaked husks after at least three months soaking in the sea or pond, beat each one of these soaked husks with a wooden mallet on a piece of rock to soften them (*tawaan te benu*), and dry them under the sun (*taawaan te benu*). Phase three is a long process but this length of time is required in order to produce good quality benu. When applying *tiribenu* and *taawaan te benu* to the research process, these refer to the researcher having the right time and space to appropriately collect data, transcribe, translate, familiarise, and summarise the data. This is a critical phase where the researcher approaches the participants' karaki with an open mind, and explicitly capture in-depth meaning of the participants' karaki.

Phase four refers to *bobinoka*. This is when the dried coconut husks which are now called *te benu* are made into several binoka. Women manually pull out a couple of *te benu* fibres and roll these on their bare thighs (*bobinoka*) to make a single filament now known as *te binoka*. Several *binoka* are required for the making of *te kora*. The process of making several individual binoka refers to the coding of the data and organising the codes into main themes or a main *binoka*.

Phase five is the *kakano*. This is when two *binoka* are then initially tied together at the ends and are rolled to form a twisted single *kora* and subsequent *binoka* are added to make a skein of *te kora*. In the research process, the *kakano* refers to the analysis of the findings. The process of the *kakano* depicts participants' health seeking behaviours and how they manage their health and illness.

Phase six is the final product of *te kora* representing the participants' model of health in the New Zealand context. During the process of *te kakano*, the family members primarily engage in *maroro* where senior family members tell their stories ranging from gender roles in the making of *te kora*, passing of traditional knowledge, family history while teaching the younger generation the skills of making *te kora* in a practical manner.

Te kora has an important role for I-Kiribati families, given the many uses of the completed twine in building traditional houses, local kitchen tables, food storage and containers, canoes, fishing gear, and dancing attire. Historically *te kora* was used to fashion armour and weapons and today it is also used to produce toddy, a local I-Kiribati juice rich in vitamin C.

Below are the images of *te benu*, the two *binoka*, when they are rolled and twisted together and successive *binoka* are added to make a long skein of *te kora*.

Figure 3.2 (a) *Te benu*; (b) *Te binoka 1*; (c) *Te binoka (2)*; (d) *Te kora*

Te kora works as a metaphor to frame this research because of the important principle of interlacing separate threads, the family and communal efforts, the gender roles and the *maroro*.

The *binoka* can represent the different approaches to health, while *kakano* represents the rolling and the twisting of the western and Kiribati health approaches to understand how I-Kiribati immigrants might practice health in the New Zealand context. My questions will focus on the various *binoka*, which comprise an I-Kiribati immigrant's approach to health and illness in New Zealand, how they might roll, twist their Kiribati health approaches to western medicine, and if and how they might interweave,

negotiate, or integrate their different health approaches to manage their health or illness in New Zealand.

Even in Kiribati, new *materials* are occasionally used in the making of *te kora*. Raffia is one prominent example. It was originally a fibre made from the leaves of the raffia palm trees, which are found in Madagascar and tropical America (Sandy & Bacon 2001). However, today, raffia also refers to a commercially available plastic product, which is often used in the place of the tree-based product. In addition, importantly, in Kiribati raffia occasionally is used as a substitute for *te kora*. It is particularly common because of the increase in urbanization, which shifts some of the cultural practices among I-Kiribati. For example, some families who work full time as government and private business officials may not have the time to make *te kora*, and will instead purchase it from a local market, order it from the outer islands, or use raffia instead.

While the recruitment, data collection and analysis captured *te kora* model principles of gender responsibilities, passing down of heritage skills and knowledge to the next generation, family communal efforts and celebrations, what was critical to the research was the way this research was approached and conducted when recruiting I-Kiribati participants.

3.3. WEAVING WESTERN ETHICS IN RESEARCH WITH KIRIBATI CULTURAL ETIQUETTE

Western ethics, Pacific ethical principles and Kiribati cultural etiquette are sometimes at odds with one another, and this was important to consider in this indigenous study. Western ethics requires the core principles of ethics including anonymity, privacy, confidentiality, justice, beneficence, and respect for personal integrity and vulnerability (Schneider, Whitehead, LoBiondo-Wood & Haber, 2016). Pacific ethics expects researchers to incorporate common Pacific values including respect, reciprocity, family obligations and connectedness, be community centred, have communal responsibilities, honour and well-regard older people, humility, charity and love, fulfilling roles, and acknowledging faith (Bennett et al., 2013). Western core principles of ethics and Pacific research protocols are incorporated in

this study, alongside I-Kiribati cultural etiquette that upholds the principles of: *kaomataaki*, *bauarira* and *iokinibwai*; which will be described further below.

Three Kiribati key principles of cultural etiquette include firstly the principle of honour of being *kaomataaki*. *Kao* means 'to invite' and *aomata* means 'a person' or 'people' and adding *aki* to the end of *aomata* as in *aomataaki* means 'to confirm' or 'to make certain of that person'. Therefore, *kaomataaki* in this context means 'honouring and inviting a person with dignity to participate in the study'. It is important in this study context, because my responsibility as a researcher was to demonstrate a culturally appropriate tone of voice, spoken language, and processes of honouring and upholding the dignity of the research participants.

For this research, the principle of *kaomataaki* was done through appropriate consultations with the gatekeepers who are the presidents of a Kiribati church community. Presidents of church communities are not church ministers, priests or reverends who conduct the church service. The presidents' roles are to chair meetings, lead and manage related church community functions. Selecting the presidents as gatekeepers is important to prevent any power-relations between a church member and the minister, reverend, or the priest. The consultations were done initially by a direct phone conversation to the presidents of the church communities, and then followed by a follow-up email with the research flyers, research invitations and research information attached, and a request to distribute my research interest to the church communities. I initially contacted potential participants who showed their interest in taking part in the study rather than waiting for their phone call. This was to further strengthen the concept of *kaomataaki* and to show cultural courtesy to potential participants of the study. I then followed the phone call by way of face-to-face *maroro* with potential participants using the participants' first language. It was courteous to hold the *maroro* at a venue preferred by the participants and in line with the principles of *kaomataaki*. *Kaomataaki* in the Kiribati cultural context is important because it is about providing the cultural courtesy of inviting

people to be guests at a feast or *botaki* because without a proper invitation, invitees would not attend or partake in the *botaki*.

Secondly, the principle of *bauarira*, which means to tighten the bonds of unity, connectedness, and accountability between two or more people. “*Bau*” means a vow, or it can also be referred to as a wreath. “*Arira*” means to tighten. The principle of *bauarira* is about the researcher’s accountability and responsibility surrounding reciprocity. These range from updating the participants of the research progress, disseminating appropriate information to participants and the Kiribati community at large about the outcome of the research, and what has been done to benefit the Kiribati community at large or contributing to other Pacific communities in New Zealand. This would establish a mutual bond between the researcher and the study participants. The principle of *bauaria* builds on from the proper cultural approaches involved in the principles of *kaomataaki* i.e. the process surrounding recruitment of participants, through data collection, and through to dissemination of the knowledge back to the Kiribati community.

In the Kiribati culture, a person who hosts an event or one who organises a series of face-to-face *maroro* during which rapport is established, tightens the bonds of unity and connectedness between the host and the people who are invited to assist in hosting the *botaki*. For the purpose of this research, establishing a meaningful bond entailed an initial approach to the community leaders who on occasions act as gatekeepers to protect families from unwanted intrusion.

Thirdly, the principle of *iokinibwai*; the reciprocal gesture and actions to honour the kind contribution of the other party. “*loki*” refers to exchange of goods, food, or services, but it can also refer to ‘reconciliation’. “*Bwai*” means “thing[s]”. In the Kiribati culture, there are important cultural practices that must be considered in this *iokinibwai* process. Going through the proper channels of communication to clearly position the proposal to the other party, the proper words spoken, the tone of voice and how the resources will be utilised and shared are critical aspects of the *iokinibwai* principles. All of these processes must be done in a reciprocal manner to benefit both parties, for example the host of the *botaki* or a researcher, and

those who are being asked to contribute to make the *botaki* or a project a successful one, or participants of a research. The principles of *kaomataaki*, *bauarira* and *iokinibwai* are I-Kiribati cultural values that are also reflected in *te kora* framework that are crucial to fulfil and support the western research ethics and Pacific research protocols.

In New Zealand, it is important that researchers conduct their research in accordance with their proposal and in line with the Human Research Ethics Committee. Msoroka and Amundsen (2018) argued that one size cannot fit all (Msoroka & Amundsen, 2018). This means that the universal ethical guidelines can be inadequate when carrying specific research for indigenous people and are not culturally appropriate to the culture of the participants in the research particularly when it comes to researching the indigenous cultural worldviews and practices.

Other researchers have recognised the importance of applying the principles of western research ethics to respect the participants' right to be fully informed of the research project, in order to give informed consent; to ensure participants privacy by upholding their anonymity; to ensure confidentiality; for safeguarding participants' trustworthiness, beneficence, personal integrity, their diversity of culture and protecting their vulnerability (Woods & Lakeman, 2016).

To put these in context, while the concepts of *kaomataaki*, *bauarira* and *iokinibwai* are not applicable to western ethics, they may make sense to Pacific ethical principles. The weaving of the principles of western research ethics, the Pacific research values, and the Kiribati cultural etiquette to meet both the scholarly requirements of academic research and the standard cultural etiquette of Kiribati were an integral part of this research.

This research integrated and wove the universal principles of research ethics, the Pacific research ethics, and Kiribati cultural etiquette to ensure that I-Kiribati participants were protected in their own right, ensuring that I-Kiribati participants' cultural values were acknowledged throughout the research process, and at the same time met western ethical considerations. Therefore, in this study, western ethics, Pacific research principles and

Kiribati cultural etiquette were carefully examined and woven together in consultation with the Ethics Committee to ensure that the research processes all aligned. This should now result in a win-win approach which should benefit both the participants, the researcher, and the New Zealand health systems.

3.4 ETHICAL-CULTURAL CHALLENGES IN RECRUITMENT

One of the core principles of western ethics is the principle of justice (Schneider et al., 2016). Fairness is expected from researchers by initially providing their participants with relevant information about the study to ensure that the participants are well informed, and able to make decisions as to whether or not they want to partake in the study without any prejudice. Such information should include the researcher's credentials, roles and responsibilities, the research process, and benefits and risks of the study (Schneider et al., 2016). Therefore, introducing myself as a researcher, providing the research information, and describing my role and responsibilities to inform participants are important in this regard. However, while I had to comply with the western research ethics, I felt uncomfortable as this was not the usual way of introducing yourself to an I-Kiribati community. Culturally, when it comes to revealing the academic credentials of an I-Kiribati, it is proper that someone else reveals these on behalf of that individual.

As an I-Kiribati community member conducting a research within my community, there were cultural expectations that I needed to comply with and at the same time, there were also western ethical research requirements that I needed to fulfil and demonstrate as an academic researcher to uphold the western ethics principles. As the Kiribati cultural practices are significant cultural strands, they must also be threaded through the western ethics principles to uphold Kiribati cultural etiquette. This includes the honour of being invited with dignity (*kaomataaki*), tightening the bonds of unity and accountability (*bauarira*), and the right of gaining reciprocity (*iookinibwai*). These three Kiribati cultural concepts

must be used because they are not only meaningful, but respectful to the I-Kiribati senior members, the community at large and to individuals.

In the next section, I will show how I translated the *te kora* methodology and cultural etiquette, along with western ethics into a method of data collection and analysis.

3.5 RECRUITMENT PROCESS: PHASE ONE *TARAKAI* AND *ANEANE*

Tarakai and *Aneane* involve the initial preparation for recruitment, organizing paperwork for sampling and recruitment, and liaising with gatekeepers of potential participants.

I initially started the recruitment process with the concepts of *tarakai* and *aneane*. Through my Kiribati network, I gathered knowledge about the Kiribati communities across New Zealand and found out who would be the key people to contact so I could reach out to them as gatekeepers of their communities, and how to best contact them. I also identified the inclusion selection criteria for study participants. I then contacted the presidents of the Kiribati church communities as the gatekeepers, to assist me to extend my research invitation to the community members. During the recruitment phase, I engaged in *maroro* with the presidents prior to the *anoiko maroro* recruitment of participants, and the actual *maroro* process for the *purpose* of the collection of data. I then started phase two, the *koromrom*, during the actual *maroro*. I was mindful to recognise the participants' *karaki* that are intense and be able to deal with them in a culturally and professional manner.

Part of the *tarakai* and the *aneane* was to identify the study setting. Faith communities are important sites of congregation for new immigrants. While immigrants congregate in a church to worship and celebrate their common faith, they also find the purpose of these congregation worship places as spaces to negotiate their societal membership (Nagel & Ehrkamp, 2017). The Kiribati church communities' leaders of the lower North Island of New Zealand including Horowhenua, Kapiti, Porirua, and Greater Wellington, were approached as gatekeepers to recruit study participants. These church communities were the Wellington Kiribati Catholic

Community (WKCC), the Wellington Kiribati Uniting Church (WKUC), and the Wellington Kiribati Seventh Day Adventist Church (WKSDAC).

Initially the research proposal gained approval to recruit I-Kiribati participants from the lower North Island of New Zealand who met the criteria. I-Kiribati, who were in the South Island, heard about this study and showed their interest directly to myself or to their community leaders in the South Island. Therefore, interest from I-Kiribati community members in the South Island resulted in seeking an amendment to my Research Ethics proposal to extend the study's geographical boundaries to accommodate their interest rather than insult them. Excluding interested participants from the South Island would have been culturally inappropriate and was not in line with the principles of *kaomaataaki*, *iokinibwai*, and *bauaria*. To demonstrate the principles of *kaomaataaki*, *bauarira* and *iokinibwai*, as a researcher coming from the inside worldview of the I-Kiribati culture, it was appropriate to respond to I-Kiribati participants from the South Island of New Zealand who contacted me directly showing their interest in participating in the study by thanking them, acknowledging their interest, and indicating that I would be prompt and responsive. According to western research ethics, the initial approved ethics application outlining the research procedures should not be changed without the permission of the Ethics Committee (Schneider et al., 2016).

The geographical setting was expanded later to include the Kiribati communities in the South Island. The reasons for the expansion of the geographical setting were two-fold. Firstly, there were a few I-Kiribati within the South Island communities who heard about the study through family connections in the lower North Island and contacted the researcher directly expressing their interest in taking part in the study. In the Kiribati culture, when people want to be included in an event, it is culturally inappropriate to turn them down, and their interest should be nurtured appropriately. Secondly, recruitment was slow within the Kiribati communities in the lower North Island at the time.

The Ethics Committee was then consulted, and ethics approval was obtained (see Appendix 12a&b) to expand the study's geographical parameters to include the Kiribati communities in the South Island.

The recruitment of the participants, data collection and analysis were embedded within *te kora* Kiribati cultural research framework and in line with a qualitative research approach.

3.5.1 SAMPLING AND PARTICIPANTS' INCLUSION CRITERIA

A purposive sampling (Whitehead & Whitehead, 2016) was used to select 30 participants of first-generation I-Kiribati immigrants aged eighteen years and over, born and raised in Kiribati but now living in New Zealand, and they must have accessed the New Zealand health care system. This could have been for an acute event, an on-going or routine medical check-up with a General Practitioner (GP), or management of other illnesses. The reason for these two criteria were that participants must on the one hand, have had exposure to the Kiribati cultural health practices, by having been raised in Kiribati, but at the same time have used the New Zealand Health system.

This research also used a Kiribati community network referral sampling which I call *anoiko maroro* sampling. *Anoiko maroro* is similar to the western research term snowball sampling (Schneider et al., 2016) where study participants are asked to forward the researcher's contact details to their friends or relatives who they think might meet the inclusion criteria, and be interested in participating in the research (Green & Thorogood, 2018; Schneider et al., 2016). In this study, snowball initially started from the gatekeepers, presidents, or chairpersons of church communities whom I first contacted to assist me to reach their church community members. While this research acknowledged the use of traditional western recruitment styles of both purposive and snowball sampling (Borbasi & Jackson, 2015; Schneider et al., 2016), these two types of sampling were not culturally adequate to address the Kiribati cultural practices of inviting I-Kiribati to be involved in a study. For example, the invitation process within the snowball sampling paradigm involves a study participant inviting another person who may be a potential participant

in the study. This approach is not in line with Kiribati cultural etiquette and does not address the I-Kiribati cultural principles of 1) *kaomataaki*, to ensure that I-Kiribati are being given the honour of being invited with dignity; 2) *bauarira* the principle of enduring the power of tightening the bond, unity and trustworthiness; and 3) *iokinibwai*, the principle of I-Kiribatis' reciprocal rights. In the Kiribati culture, inviting an I-Kiribati to take part in a study entails the concept of *kaomataaki*. In this context *kaomataaki* means that the invitation to potential participants must embrace honouring their existence and dignity and this is usually done in a face-to-face *maroro*, and the invitation has to come from the person who is hosting or organising the research project.

The next paragraph will describe the process of *anoiko maroro*.

3.5.2 ANOIKO MARORO RECRUITMENT

I have chosen *anoiko maroro*, the Kiribati expression to describe sampling in a more Kiribati cultural-centered way for recruiting study participants. The word *anoiko* in Kiribati means to beckon with a hand as a gesture to welcome someone. However, it is more than a hand gesture, it conveys an in-depth meaning of welcoming someone who you may or may not know and making that person feel at home. *Maroro* means to converse or discuss. I acknowledged this concept when I initially contacted the community leaders, followed by a proposal to meet with community members who had showed their interest. I then contacted them individually to arrange the appropriate time and place to meet for the initial *maroro*. It was important that I directly contacted those potential participants who showed their interest to demonstrate *anoiko*. I also acknowledged the concept of *anoiko maroro* by contacting I-Kiribati seniors appropriately who had conveyed their interest. *Maroro* as stated earlier, means a two-way conversation between two or more people for the purpose of exchanging ideas, passing on or generating knowledge as well as negotiation, bargaining, clarification, settling a dispute, providing information, the exchange of goods or services, or planning events.

The concept of *anoiko maroro*, in my view, captured meaningful Kiribati nuances and reflected the ways in which the researcher politely

welcomed potential participants, explained the research project, and invited other potential I-Kiribati study participants, both individuals and groups, in the usual Kiribati cultural manner who showed interest in participating in the study.

As a female researcher recruiting I-Kiribati migrants of both male and female gender, I was mindful to acknowledge the cultural sensitivity of *maroro* between a male and a female. To address the cultural sensitivity that might be a barrier particularly with married male participants, in the research information sheet I included the fact that they could bring a support person to the *maroro* and I also provided a consent form for the support person to ensure confidentiality of the *maroro*.

The study therefore recruited twenty-three females and seven males. All of the thirty participants responded well to *anoiko maroro*. This was after consulting the gatekeepers and receiving information about potential participants. I rang the potential participants in response to their interest, not only to show courtesy as in the Kiribati concept of *kaomataaki*, but this initial contact was important because it gave me the chance to further explain the purpose of the research, and how it would benefit the Kiribati community at large in New Zealand. While there was more woman recruited in the study, this did not mean that females were more interested in the study than men. The invitation and recruitment were based on *anoiko maroro*, and who wanted to take part in the study to reflect the Kiribati cultural etiquette of *kaomataaki*, *bauariria* and *iokinibwai*.

Of the thirty participants, ten were between the ages of twenty to forty years old, sixteen were between the ages of forty-one to sixty, and four were sixty-one or above. Participants' employment status and roles within their respective families vary. Of the thirty participants, seventeen were employed, three had retired, seven were unemployed, one on maternity leave, one was a full-time student, and one was on a visitor's visa. All participants play a significant role in making sure their family members are well and healthy. The table below describes the participants' codes, distribution of age groups, gender, roles in their respective families and their length of stay in New Zealand.

Code	Age	Gender	Lives with	Role in family/Employment status	No. of Years living in NZ
PO1_F_M1_070618	50+	Female	Extended Family	Employed, wife, mother, grandmother	12 years
PO2_F_M1_290618	45+	Female	Extended Family	Employed wife, mother, grandmother	12 years
PO3_M_M1_060718	45+	Male	Extended Family	Unemployed, husband, father, grandfather	10years
P04_F_M1_250718	65+	Female	Nuclear Family	Retired, wife, mother	18years
P05_F_M1_260718	55+	Female	Extended Family	Employed, Widow, mother, grandmother	12 years
P06_M_M1_090818	50+	Male	Nuclear Family	Employed, Partner	13 years
PO7_F_M1_090818	40+	Female	Nuclear Family	Employed, Wife, mother	9 years
P08_M_M1_160818	65+	Male	Nuclear Family	Unemployed, Husband, father, grandfather	20+years
PO9_F_M1_300818	75+	Female	Extended Family	Retired, widow, mother, grandmother, great grandmother	6 years
P10_F_M1_310818	55	Female	Extended Family	Employed, Wife, mother, grandmother	19 years
P11_F_M1_060918	30+	Female	Extended Family	Unemployed, Wife, mother	1year
P12_F_M1_060918	25+	Female	Nuclear Family	Employed, Partner Visitor, widow, mother, grandmother	2 years
P13_F_M1_220918	60+	Female	Friends	Employed, Wife, mother, grandmother	1year
P14_F_M1_220918	48	Female	Extended Family	Employed, Wife, mother, grandmother	8years
P15_F_M1_230918	46	Female	Extended Family	Employed, Wife, mother, grandmother	6 years
P16_F_M1_111018	43	Female	Nuclear Family	Employed, Wife, mother	23 years
P17_F_M1_111-18	42	Female	Nuclear Family	Employed, Wife, mother	20+years
P18_F_M1_111018	25+	Female	Nuclear family	Unemployed, Wife, mother	10+years
P19_F_M1_111018	48	Female	Extended Family	Employed, Wife, mother, grandmother	10+years
P20_F_M1_111018	23	Female	Nuclear Family	Unemployed, Wife, mother	2 years
P21_F_M1_131018	36	Female	Nuclear Family	Student, Wife, mother	10 years
P22_M_M1_131018	20	Male	Nuclear Family	Employed, Husband, father	20 years
P23_F_M1_131018	35	Female	Nuclear Family	Unemployed, Wife, mother	20 years
P24_F_M1_131018	51	Female	Nuclear Family	Employed, Wife, mother	20+ years
P25_M_M1_141018	47	Male	Nuclear Family	Employed, Husband, father	10 years
P26_F_M1_141018	60	Female	Extended Family	Retired, Divorced, mother, grandmother	48 years
P27_M_M1_141018	27	Male	Nuclear Family	Employed, Husband, father	6 years
P28_F_M1_151018	34	Female	Extended Family	Unemployed, Wife, mother	25 years
P29_M_M1_151018	60	Male	Extended Family	Employed, Husband, father, grandfather	25 years
P30_F_M1_151018	44	Female	Extended Family	Maternity leave, Wife, mother	20+ years

3.5.3 ANOIKO MARORO PHASE ONE

Three Kiribati church community chairpersons of the WKCC, WKUC and the WKSDA of Horowhenua, Kapiti, Porirua and the Greater Wellington regions were initially contacted as gatekeepers to their church community members via emails, sent during the first week of April 2018 (see Appendix 1). In the email, I introduced myself, explained my research project and requested the chairpersons to convey my research interest. I supplied my contact details and asked potential participants to contact me if they wanted to participate in the study or if they wanted to hear more about the research. Attached to the email were electronic copies of the information sheet for the prospective participants and the flyer for the research project that were written in English and the Kiribati language.

3.5.4 ANOIKO MARORO PHASE TWO

The initial emails were well received by the three Kiribati church community leaders. While I-Kiribati were aware of my research project via their church leaders, response was slow from the wider community members. Within a week after I sent the initial email, I received only one I-Kiribati response to the invitation via email. I contacted this I-Kiribati and set an appropriate time to conduct the initial *maroro*. Through the *anoiko* referral system, this participant referred another potential participant who also agreed to take part in the research study. But then there was a long pause between April and June 2018 in recruiting more participants.

I reflected on my recruitment strategies and realised that there might be barriers for I-Kiribati to access the information. I could have been more supportive by posting hard copies of the research flyers to the chairpersons of the Kiribati communities so that they could disseminate these hard copies to their community members. Other barriers that might have delayed the recruitment process were issues related to poor access to internet or printers, the cost of printing, or no time to read the emails. I also reflected on the Kiribati cultural values and processes as to whether I had respected the Kiribati cultural principles of etiquette of *kaomataaki*, *bauarira* and *iokinibwai*. On reflection, after consulting the Kiribati community church

leaders as gatekeepers to help me disseminate my flyers to their community members, which I felt was the right channel to reach the community that is culturally and ethically appropriate, I then felt that this did not adequately meet the three principles of Kiribati etiquette. An arranged face to face *maroro* in the Kiribati culture is a genuine gesture that honours the peoples' dignity, it tightens the bonds of unity and trust, and brings about reciprocity. Therefore, face to face *maroro* should have taken place in the first instance.

In order to honour the Kiribati cultural etiquette and propagate further my research to the Kiribati community, I thought of other creative strategies that must fit the principles of Kiribati cultural etiquette that are also in line with the principles of the Pacific health research

Consequently, in June 2018, I sent another email to the chairpersons of the Kiribati communities, requesting them to kindly follow up on the initial email and at the same time I asked if I could come to their church congregations to speak to their church community members about my research project. I also extended the invitation to those I-Kiribati who might not be active in a Kiribati church community by sending the initial email to the president of the general Kiribati Community Club (WKC) whose members are all I-Kiribati living in the Horowhenua, Kapiti, and the Greater Wellington regions. To this email, I also attached the research flyer and participant's information sheet. I also obtained permission from the President of the WKC to talk to members of the WKC (who are also members of a Kiribati church) at their annual general meeting which was scheduled for July 2018, and I was able to disseminate the hard copies of my flyer to potential participants.

I-Kiribati in the South Island who had heard about my research through the Kiribati communities' networks, showed their interest in participating in the research. As stated earlier, to uphold the traditional approach of western research ethics, I had to extend my study geographical area and sought approval from the research ethics committee. The president of the Kiribati South Island Community (KSIC) was also contacted to assist in recruiting I-Kiribati participants from their community so that those who had previously shown their interest to participate in the study could now be

contacted through this channel. In the Kiribati culture, it would have been inappropriate and impolite to decline their offer to participate, so I responded appropriately by explaining that I would get back to them once I had sought approval. I initially sent the email to one of an active executive member of the KSIC along with the research flyer and the participant's information sheet. I asked if these flyers could be disseminated to their community members, and that I would post hard copies to her so she could take them to the KSIC members during their general meeting. I was fortunate that I did not have to post the hard copies of the research flyers because the KSIC executive member responded to my email within a week with the names of potential participants and their contact numbers. In this context, western research ethics process can discourage the cultural connection between the researcher and the participants because of the lengthy process in seeking research ethics committee approval rather than just recruiting interested participants who directly show their interest.

Another strategy that I used was approaching the executive committee of the Wellington Kiribati Catholic community (WKCC) to talk to the WKCC members during their annual general meeting. While I was a member of the WKCC, I was mindful of the Kiribati cultural principles of etiquette and made sure that I adhered to the *kaomataaki*. I therefore first approached the executive members of the WKC to get permission to slot in my *maroro* during one of the WKC's general meetings to discuss further my research project. This was one way of providing courtesy and respect by asking permission but also to demonstrate *bauarira*. I also asked the executive members of the WKC if they would like me to present a health topic of their interest during the maroro with members of the WKC. They suggested that I could give a *maroro* on diabetes, which I did as a way of demonstrating the *iokinibwai*. After the health talk, I then gave a maroro on my research topic, its rationale and the process around recruitment and invited those who wanted to take part in my research. The approach was well received by the community, and I was able to talk directly to those who were interested in taking part and able to obtain their contact details and the best time to contact them. I also contacted the president of the general

Wellington Kiribati Community (WKC) to follow up on my research flyers and asked if I could also provide a *maroro* on my research topic, its benefits to the Kiribati community and to disseminate my flyers to the WKC members. These two sets of *maroro* were conducted in the Kiribati language and in a culturally appropriate manner based on the Kiribati principles of etiquette. These strategies were effective and resulted in an increased number of I-Kiribati showing their interest in participating in the study. Thirty participants consented and took part in the study.

3.5.5 THE ACTUAL *MARORO* WITH POTENTIAL PARTICIPANTS - PHASE TWO: *KOROMROM*

This involved building rapport with gatekeepers and potential participants, a careful self-observation, and being mindful of power-relations with regard to myself as a nurse and coming from the insider Kiribati worldview and researching I-Kiribati. I noticed that those participants who are in their second relationship or second marriage, and who brought with them their current partners missed a timeline in their life when they were with their first partner. As these participants told their *karaki* starting from their birth in Kiribati, to childhood and adulthood on how they manage their health and illnesses, there were some points where they were reluctant or skipped some parts of their timeline, and these were during the time of their first marriage. I acknowledged their space and avoided prompting questions but concentrated on their *karaki* that involved their life experiences with their current partner.

I established a rapport with participants from the very moment I talked to them either by a phone conversation, email or a face-to-face *maroro*. I made the initial phone call to a potential participant after he or she had shown interest or had been referred to me. The initial personal contact was to remove any stress which may have been a barrier caused by contacting me. A suitable day, time and place for the potential participant was then arranged to do the actual face to face *maroro*.

During the face-to-face *maroro* with potential participants, I explained the participant information and consent forms for both the participant and the support person in the Kiribati language, and answered any questions

raised by potential participants. I obtained a written consent form prior to conducting phase two *maroro*, the actual *maroro*.

The actual *maroro* had two phases, firstly the introduction that primarily started with greeting a participant, and the participant's support person if any, and introducing myself, my research project, its purpose and benefits. I also informed the participants about my role as a researcher, the roles of the participants and the support person. Copies of the participant information sheets, and consent forms were provided in both written English and Kiribati. I went over the forms with participants in the Kiribati language and I also answered any questions they asked. Participants were also informed that their names and other information or characters that they might be known by would not be revealed. From the *maroro*, stories or *karaki* were generated from the participants and became the data. *Karaki* is part of the *kora* process, as there are many *karaki* told during the process of making *te kora*.

In relation to senior I-Kiribati immigrants who showed interest in taking part in the study, and in line with the Kiribati culture of respecting older people, I respectfully made arrangements by ringing potential elderly participants who showed their interest in participating in the study, acknowledged their interest, and arranged a suitable time to visit them at their homes. Visiting senior I-Kiribati at their homes is a respectful cultural approach that must be followed by the younger I-Kiribati population. This approach of visiting the elderly at their homes is also in line with the Kiribati cultural etiquette of *kaomataaki*, *bauariria* and *iokinibwai*.

3.5.6 CREATING A NATURAL *MARORO* SPACE FOR PARTICIPANTS

This study was conducted in a natural setting. According to Schneider et al, (2017), conducting research in a natural setting is important to elicit in-depth authentic information from participants taking into account factors that may influence the participants' responses or stories. I conducted the *maroro* in line with the three key aspects that are integral to ensuring that a study is conducted in a natural setting. These include the *maroro* for each individual participants taking place in the participants' preferred venue where they felt comfortable; the research being conducted in the

participants' first language throughout the entire process of recruitment, and the *maroro* being conducted in line with Kiribati cultural etiquette. Because the Kiribati language was used throughout the entire process, the participants were able to freely express their own opinions and tell their own personal *karaki* in their mother tongue. I could relate to the participants' when they were in deep moments of telling their *karaki*. This also captured my full interest in sharing their stories when they used gestures like raising their eyebrows and used their hands to express their feelings. I was also able to relate the participants' stories to my emic understanding of the I-Kiribati worldview.

Two venues for the *maroro* were offered for the participants to choose from and these included either an office space or the participant's home. Twenty-three participants wanted to have the *maroro* at their homes, while seven participants preferred an office space as this space was convenient to them and / or quiet with no distraction from their home duties and their family members.

3.5.7 DATA COLLECTION: PARTICIPANTS' KARAKI- PHASE THREE: TAO BENU, TIRI BENU, AO TAWAAN TE BENU

This was a long process which involved data collection, transcribing, and translating of data, and later familiarising myself with the data.

The second phase of the *maroro* occurred after gaining each participant's consent. In the Kiribati culture, it is customary that over the sharing of food and drinks, a general *maroro* is initiated, not only to build rapport and to make the participants feel at ease, comfortable and important but as stated earlier, these practices also contributed to creating a natural setting for participants, so they could share their *karaki* comfortably and naturally. In this case, the *maroro* would initially open with a generic conversation, for example, questions related to the participant's island, village, or ancestors. This was then followed by compliments of the participant's existence, their family of origin, village, or island. Other leading questions were also used, for example whether they had any children, their wellbeing or whether they had a trip back to Kiribati.

I listened carefully to their *karaki* and used prompts such as questions generated from the initial opening general *maroro* to encourage the participants to tell a more in-depth *karaki*, to allow clarification, elaboration and in an attempt to elicit rich authentic and meaningful information.

The participants' *karaki* were audio-recorded, transcribed, summarised and translated into English by myself. The audio-recorded *karaki*, transcripts and translations were kept in a password protected file on my computer and participants' recorded *karaki* were deleted after successful transcribing. Any written notes from the participants' *maroro* and printed versions were kept in my locked cabinet in my study space at Victoria University of Wellington campus which no one could access. The English version of the transcription and the summaries of each individual participant can only be accessed by my supervisors.

Participants were also informed of their right to withdraw from the study at any time but before the compilation of the final data analysis in May 2019. I also made sure that the participants demonstrated understanding of their role in the research and the research itself, and that they freely gave their consent by signing the consent form.

As participants told their *karaki*, their social-cultural-health and religious contexts that reflected their health, I continuously provided encouragement to develop further the connectedness, engagement and familiarity of the participant's characters and roles in the *karaki*. This encouragement ranged from nodding gestures, acknowledging phrases for example: "go on", "...that is very interesting", "...that is amazing", "...great work". But most importantly, this encouragement also made the participants feel important and that their *karaki* were being valued. Prompt questions related to the participant's *karaki* were used to ensure that the *karaki* was focused on the participant's health and illness beliefs and practices in New Zealand.

Each *maroro* was concluded with a word of thanks or 'ko bati n rabwa' to a participant, or 'kam bati n rabwa' to a participant and a support person, and a \$30 voucher was given to each participant as a token for their time and contribution to the research project.

Within the *maroro*, *karaki* were generated, in line with the collective process of making *te kora* and of I-Kiribati family life. While the participants told their *karaki* about their worldviews and health practices when they were in Kiribati and while in New Zealand, I also observed and took note of their facial expression, for example, 'looking sad, or teary, their tone of voice, for example their voice sounding shaky or nervous. I also made sure that each phase of the *maroro* was structured in a culturally appropriate manner throughout the *maroro*, such as responding by saying 'that must be tough...".

To ensure that I complied with the research ethics procedures and in line with safety matters, I informed my supervisors via email or phone text messages, the time and place where I was going to do the *maroro* with study participants.

While data collection went on, I transcribed the participants' *karaki*, translated into English, and coded them within two to three days after each *maroro*, and considered whether the study had reached data saturation. More data may not be necessary if most of the information is repeated in each individual story (Mason, 2010).

3.5.8 TRUSTWORTHINESS OF PARTICIPANTS' KARAKI

There are five quality criteria for safeguarding trustworthiness in qualitative research studies. These criteria emphasise how well the researchers demonstrate evidence of credible, transferable, dependable, confirmable and reflexive description and analysis of their research, and that the integrity of the study is achieved by presenting accurate authentic participants' worldviews and situations (Bloomberg, 2012; Korstjens & Moser, 2018; Lincoln & Guba, 1986).

Credibility and *reflexivity* were maintained throughout this research to certify the quality of this study. *Credibility* is about ensuring that the researcher accurately represents the participants' thinking, feeling and their practices as well as providing reliable viewpoints of the researcher and the reader whereas *reflexivity* refers to the ability of the researcher to critically self-reflect and rule out his or her own biases, prejudice and preferences (Bloomberg, 2012; Korstjens & Moser, 2018; Lincoln & Guba, 1986).

As a person of Kiribati descent, who was born and raised in Kiribati, and speaks the Kiribati language fluently, I was able to easily connect with the participants and identify patterns of meanings of their individual unique experiences. Since I collected the data and have pre-existing knowledge of the Kiribati social-cultural and health situations in Kiribati, I separated my pre-existing knowledge of my own personal and nursing experience and focused on the participants' voices and *karaki* to elicit their individual health worldviews. For example, knowing that my community is small, I was mindful that my pre-existing knowledge about some families was not interfering by asking questions or clarifying the participant's health and illness worldviews. As a nurse who trained and worked in Kiribati for sixteen years before I emigrated and worked as a registered nurse in New Zealand, it was also a privilege for me to listen to their unique voices, and identify the participants' characters in their *karaki* pertaining to how they manage their health and illness, and compare health practices in the Kiribati and New Zealand health systems.

Transferability is another quality criterion for trustworthiness that describes the level to which the findings of the qualitative research are able to be transferred for use in other contexts or settings. *Transferability* also relates to *thick description* that encompasses the participants' behaviour and experiences and their contexts and situations, and whether these behaviours and experiences are also meaningful to other outsiders' contexts and situations (Korstjens & Moser, 2018; Lincoln & Guba, 1986).

I maintained the *transferability* of this study by translating the content of the individual participants' *karaki* from the Kiribati language into the English version, but I made sure that I kept the Kiribati nuances that captured the in-depth meaning of the participants' *karaki* by using the participants' quotes in the Kiribati version and translating the Kiribati quotes into English. This was important because the participants' behaviours, practices and experiences were unique in their own ways when managing their health. I also consulted the Kiribati-English online dictionary to search for more Kiribati vocabulary words that fit the English translated meanings.

Dependability and *confirmability* are the other two quality criteria for trustworthiness in qualitative research. Both *dependability* and *confirmability* deal with the transparency of the research steps, how the data is well kept throughout the study, and how the data is confirmed by the participants and that the data is correctly interpreted (Korstjens & Moser, 2018; Lincoln, 1985). *Confirmability* focuses more on how the researchers accurately interpret the findings in a way that is not fabricated to assume imaginable assumption, but that the data is clearly derived from the dataset (Korstjens & Moser, 2018).

In this study, dependability and confirmability were maintained throughout by providing an accurate summary of participants' *karaki* by returning the summary of *karaki* to the study participants to review and to ensure that the summary accurately captured what was told during the *maroro*. During the *maroro*, I obtained study participants' consent to email them back the summary of their *karaki*. Twenty-seven of the participants have access to email and gave me their consent to email them the summary of their *karaki*. There were three senior participants, who were between their late sixties and seventies and did not have an email address and preferred to have their summary posted to their physical address.

Initially, ten participants responded to my initial email a month after I sent them the summary of their *karaki*. They confirmed that they were happy that the summary captured what was actually told in their *karaki*. One of the study participants requested that his age be corrected. The other twenty study participants did not respond to my email. To ensure a robust and reliable transcription of the participants' *karaki*, particularly those of the twenty participants who had not responded, I sent a follow-up email to confirm that they had received and read the summary of their *karaki* and asked whether they would like to comment or add anything else to the summary. Following this further follow-up email, I received a further thirteen responses confirming that the summary of their *karaki* were correct and had captured what was said in the *karaki* and two of the thirteen corrected their demographic information.

I then provided a courtesy phone-call to the remaining seven study participants who had not responded. The outcomes of these courtesy phone-calls were that four of the participants confirmed via the follow-up phone calls that they had received and read the summary of their *karaki* and stated that they agreed to the summary and that it captured what they told in their *karaki*. Two of the participants added further information to their *karaki*. Participant P10_F_M1_310818 added further information about her father's career and her passion for gardening to grow green vegetables near her home to ensure her family's access to green vegetables daily. She stated that growing green vegetables became her passion and that in every home she moves into, she makes sure she has a garden to feed her family. Participant P30_F_M1_151018 added information about the value of having a family support system during pregnancy, birth and after birth, and wished this would be encouraged by the New Zealand health care system. This participant also expressed her gratitude about the importance of conducting the study about I-Kiribati health practices in New Zealand.

Three study participants who were in their late sixties and seventies did not have access to email. I delivered the hard copy of their summary of *karaki* personally to two of these older participants and I also explained to them the summary of their *karaki*. I contacted the third older participant by phone who lives outside of Wellington to confirm her postal address and explained that the summary might arrive in the next three days. I later did a follow-up call a week after I posted the summary of the *karaki* for confirmation. These study participants also confirmed that the summary of their *karaki* captured what it was told in the *karaki* and did not need to add anything else to the summary of their *karaki*.

There were three other study participants who did not reply to my follow up email and could not be reached via the contact cell phone they provided in their consent form. However, as stated earlier, the initial email that was sent to each individual participant highlighted that if I did not hear from them after a month of the date of the letter, then I would take the 'no response' as their confirmation of the summary of their *karaki*.

The reasons why I wanted to do follow-up phone calls to the participants were three-fold. Firstly, to support those who might have communication barriers, for example, financial constraints to be able to pay for internet access or credit on their cellphones. Secondly, this was an opportunity for the participants to add or correct the summary of their *karaki* and thirdly, to provide further support to participants in translating and clarifying the summary of their *karaki* if needed.

3.6 DATA ANALYSIS – THERMATIC ANALYSIS AND KAKANO

Proper management, organisation, and interpretation of the data is an integral component of this analysis and is in preparation for the writing and presenting of authentic and reliable findings of this study. This research used participants' *karaki* and their behaviours and characteristics such as their tone of voice used to express their experiences, the words they spoke, their facial expression, their gestures, and body language as data, and were appropriately inserted in the fieldnotes during the time of the *karaki*. These were then included in the transcription of each participant, to make meaning of the individual's *karaki*. These data sets were carefully examined, organised, analysed and synthesised using Braun and Clarke's six phases of thematic analysis (Braun & Clarke, 2006; Braun & Clarke, 2014; Braun et al., 2019). These six phases include: 1) to get familiar with the data within the participants' *karaki*; 2) to generate initial codes; 3) to search for themes; 4) to review themes; 5) to define and name the emerging themes; and 6) to report the themes (Braun & Clarke, 2006; Braun et al., 2019). The next section describes how I immersed myself in the data to gain familiarity and in-depth understanding of participants' patterns of meanings within the data set (Braun & Clarke, 2006).

3.6.1 FAMILIARISING WITH PARTICIPANT'S KARAKI

According to Braun and Clarke (2006), immersion in data is critical and must be done by a researcher to actively listen to the recorded data, transcribe, and repeatedly read the transcript to search for patterns of meanings within the data set, and to find initial codes (Braun & Clarke,

2006). As stated earlier, the primary data used in this research was the participant's *karaki*. I also took into consideration the story lines to determine the high or low peaks of the participants' *karaki* expressing their worldviews, health practices, interests, concerns, and feelings. Braun and Clarke (2006) further explained, the researchers must immerse themselves in the data to a degree to which they are familiar with the depth and extensiveness of the content (Braun & Clarke, 2006).

After each *maroro* with participants, I repeatedly listened to their recorded *karaki*, to initially familiarise myself and at the same time I referred to the notes that I took during the *maroro*. After listening and making notes, I then transcribed the participants' *karaki*, and integrated my notes at the appropriate points in the transcriptions (Braun & Clarke, 2014; Braun et al., 2019; Whitehead & Whitehead, 2016). As I repeatedly read the participants' transcripts, I initially lumped the emerging concepts within the participants' *karaki* under the main theme and then identified sub-themes. I later summarised the participant's *karaki* into the English language. To ensure that I maintained the authenticity, and to avoid issues of transferability, I included the participants' Kiribati quotes to maintain the participant's original contexts. I then generated initial codes from the participants' *karaki*, and then came up with concepts in Kiribati. I then translated the concepts of the Kiribati versions into English.

As I am of Kiribati descent with knowledge about health systems both in Kiribati and New Zealand, I immersed myself in the participants' *karaki*, very easily, extracting important concepts into meaningful clusters.

The Kiribati nuances were also noted and how the participants used these nuances in their *karaki*, considering the participants' social-cultural and health contexts. The Kiribati nuances were critical for eliciting the authentic epistemological aspects of the participants' accounts of health and illness and their health practices when managing their illnesses as immigrants in New Zealand.

3.6.2 CODING OF PARTICIPANTS' KARAKI - BOBINOKA

Once I was confident that the participants were satisfied with the summary of their *karaki*, I proceeded to the next levels of data analysis

which were the coding and searching for themes and sub-themes (Braun & Clarke, 2006; Braun & Clarke, 2014; Braun et al., 2018). As stated earlier in the research methodology chapter, this research is fundamentally conceptualised by *te kora* conceptual framework. *The modes of thinking in dynamic relations* suggested by Freeman (2016:12) were also incorporated as a tool to determine the categorical within the narrative (Freeman, 2016). Freeman, (2016) pointed out that narrative thinking is about understanding the *human meaning-making as unique theories of action* (Freeman, 2016 page 11) with the emphasis on uncovering intrinsic tensions that relate to individuals and their societies, that are translated into dialogues with another person (Freeman, 2016). Freeman's approach of understanding the narrative stories was incorporated as I familiarised myself with the participants *karaki* considering the participant's position as an individual within an *utu* and a *kaainga*, identifying the tensions told in the *karaki*.

Having the three coding tools in mind suggested by Braun and Clarke (2006), Freeman's narrative thinking, and *te kora* conceptual framework, I initially examined each participant's *karaki* to determine binoka by a 'lumping and splitting' technique. This is the basis of classification, what Zerubavel (1996) describes as a "mental process of grouping "similar" things together in distinct clusters and separating "different" clusters from one another" (Zerubavel, 1996, p. 421). Zerubavel (1996) further defined lumping as an island of meaning, a cluster of things (acts, events, objects, traits) that are regarded as more similar to one another than to anything outside the cluster (Zerubavel, 1996, p. 422). Whereas splitting concerns the widening of the perceived gaps and reinforces mental separation (Zerubavel, 1996). Therefore "lumping and splitting are, in fact, complementary since they are both necessary for carving islands of meaning out of reality" (Zerubavel, 1996, p. 422).

There was a huge amount of data presented in each of the participants' *karaki* capturing participants' unique historical life experiences and aspects of profound meaning, defining the process that shaped their existence and describing their health practices in New Zealand. It was evident that within the data sets of the participants' *karaki*, participants

pointed out several sub *binoka*. In order to actively immerse myself into the participants' transcripts of *karaki*, I chose to manually collate the participants' *karaki*, to allow myself to easily visualise each concept as I lumped and split the content of the participants' *karaki* into appropriate sub-*binoka*.

After the lumping and splitting exercise, it was evident that all of the participants highlighted strong links between their Kiribati cultural values, practices, lifestyle and upbringing and their health both in the Kiribati islands and in New Zealand. The participants' *karaki* also captured their health seeking behaviours in managing their health and illness. These health seeking behaviours included reasons for accessing their Kiribati health practices and western health practices.

The analysis also determined how I-Kiribati might have integrated, complemented, negotiated their traditional health practices with the western health system in New Zealand.

3.6.3 SEARCHING FOR MAIN BINOKA

The participants' *karaki* were closely analysed to find elements of their experiences in managing their health and illness. Their *karaki* went right back to when they were born, their upbringing, existence, where they were raised, the people who were dear to them, the community around them and their practices in managing their livelihoods, wellbeing and health in Kiribati. They later shared their experiences around managing their health and wellbeing when they migrated and settled in New Zealand. I compared both their cultural health practices in Kiribati and New Zealand and compared them by using the process of *te kakano*, the spinning and twisting of the two *binoka*, each being added to the end of each *binoka* sequentially to make a long skein of *te kora*.

Each study participant shared their unique interesting *karaki* that demonstrated, a variety of complex individual responsibilities, family expectations, a range of cultural knowledge and survival skills that reflected their individual health and wellbeing in both the Kiribati and New Zealand social-cultural and health contexts. To gain a better understanding of the complexities underpinning I-Kiribati health practices when managing their

health in New Zealand, as each main binoka and sub-binoka emerged from the participant's *karaki* they were also compared against the participant's age, and gender roles within their family and their length of stay in New Zealand.

Each participant's *karaki* was examined closely, in particular the language they used, and these were used to determine the most appropriate category of main themes and associated sub-themes. Freeman's (2016) narrative thinking was also used to identify the most appropriate group according to the defined attributes and characteristics as described by the participants in their *karaki*. These groups were then sorted into the most suitable thematic categories which I refer to as main binoka and sub-binoka.

The next chapter describes the main binoka and sub-binoka which emerged from the participants' *karaki*.

CHAPTER FOUR: THE FINDINGS, THE EMERGING BINOKA

"Sometimes a homeland becomes a tale. We love the story because it is about our homeland and we love our homeland even more because of the story"

(Alareer, R. n.d. in Quote Master).

4.1 INTRODUCTION

Uriam (2017 page 35) emphasised that Kiribati oral traditions are told in a *karaki*, which has three categories, "1) *Karaki aika iango* (fiction), 2) *Karaki aika rabakau* (knowledge), or 3) *Karaki aika rongorongo* (history)". The author further described that these classifications of oral traditions were then further categorised into two types, "the 'fixed form' which entailed sacred *tabu* or spiritual information, and the 'free form' meaning stories which involved earthly day to day life experiences or nonspiritual information" (Uriam, 2017, p. 35). This study acknowledged the participants' worldviews as evidenced by their *karaki* relating to their

indigenous mythologies, knowledge, and ancestral history. Some related to privileged sacred *tabu* and some were stories of everyday life showing how the participants managed their health and illness in the western society of New Zealand. The *karaki* that the thirty participants told started from their birth in their homeland of Kiribati, followed by their progress to childhood and adulthood, before migrating and settling in their host country of New Zealand. This chapter presents the findings that emerged from the sample of these thirty I-Kiribati immigrants who took part.

The participants described a variety of health worldviews that patently influenced their health practices and decision making. This chapter presents six main *binoka* that emerged from the participants' *karaki*. These *binoka* include: 1) health and illness perceptions; 2) the value of traditional practices; 3) traditional health practices; 4) healthy food and its production; 5) beauty and physical wellness beliefs and practices; and 6) the use of the western health approach. *Binoka* are made up of a range of *koran*, single coconut fibers which when twisted together form the *binoka*, which in turn forms *te kora* (the final string).

4.2. HEALTH AND ILLNESS PERCEPTIONS

Participants gave a range of accounts of how they perceive health and illness. Several *koran* that form this *binoka* emerged from the participants' *karaka*. These were: how they view *marurung*, *mauri* and *aoraki*, cleanliness and personal hygiene, and ancestral *tabu* and obedience. Most participants commonly referred to 'health' as '*marurung*' and illness as '*aoraki*'. *Marurung* is a word which means being alert, brisk, active, lively and in good physical condition (Trussel and Grove, 1978). It is not just about physical health, but it also describes when a person has healthiness of the body, mind, and spirit.

Aoraki is when a person is physically or mentally unwell. Some participants described the term '*marurung*' as an absence of '*aoraki*' while others expressed '*marurung*' as the absence of stress, and happiness within themselves.

A woman aged 49 years old gave an account of health and how she perceived 'marurung' very confidently, she stated:

...like when you are free from any illness [...kanga te aekaki are bon akea te aoraki iroum],... and it's like you are always happy,... [are kanga ko a bon ku-kukurei naba n taai nako], like you don't have any problem, [kanga akea am kanganga], and you always have a peaceful mind,...are kanga bon akea tabetaben am iango],... (P02_F_M1_290618).

For this woman, a peaceful mind, happiness and free from illness were key important aspects of how she perceived health and illness.

A male participant in his sixties, emphasised that as a young child in Kiribati, he was never troubled about his health, as he always thought he was always in a state of good health because he was physically fit to play sports (P08_M_M1_160818). Even though he developed a boil on his arm, he still played soccer with his friends and the boil became dangerously infected. He explained why he did not seek help in the early stages, explaining in a bilingual mix of English and Kiribati expressions:

... ai bon aorakira ngaira I-Kiribati, ...it's our attitude..., we can't be bothered, and also as parents, we often say 'aah, it will be fine, ...kanga bon akea ara atatai n taai akekei, [we had limited knowledge in those days], kanga bon akea te awareness iaon te aoraki [there was no awareness of illnesses],... we didn't know better...(P08_M_M1_160818).

As he explained, his sense of humour was noticed, and he laughed as he reflected on how his survival must have been a miracle. After migrating to New Zealand, he was more aware of the risk of worsening infections: He explained with confidence:

Health is more meaningful now that I am in New Zealand, like, I received more information about health.... I know much more about infection,... and I am more mindful about my health than when I was in Kiribati (P08_M_M1_160818).

Consequently, he is now more cautious when he develops any skin infection and he seeks medical help earlier to avoid any worsening skin

infection and he has gained more knowledge about skin infections. However, he described illness as:

...te aoraki irou are ngkana ko a bon aki kona maki, are ko a bon rang aoraki are tao ko aki kona n nakonako... bwa tao ko a bon rang n bono n ike... (P08_M_M1_160818).

English translation:

...illness to me is when you are very sick, when you are unable to walk..., because you are having much shortness of breath (P08_M_M1_160818).

What was significant about this participant was his definition of illness and when he should access his doctor. He emphasised that he did not need to see the doctor unless he was in a stage when he could not walk, or he was having severe shortness of breath. He also believed that attending regular GP appointments for a medical check-up was not necessary unless he was too unwell to walk or having severe difficulty in breathing.

4.2.1 CLEAN ENVIRONMENT AND PERSONAL HYGIENE

While most participants believed that living in an appropriate and clean environment was important to maintain health and minimise the occurrence of illnesses, participants came up with different definitions and perspectives of a 'clean environment'.

One mother whose son suffered from on-going asthma attacks in Kiribati believed that the cause of her son's persistent asthma was because the environment outside her home in Kiribati was not clean; she mentioned that *it [outside their home] was very dusty and unclean* (P11_F_M1_060918). She also stated that while she believed that unclean environments caused illnesses like asthma, cleaning her neighbourhood was out of her control. She described:

Our next door neighbour ran a kava bar business, and every day, people came to drink kava.... it was overcrowded as the houses were too close,... people did not practice hygiene... as they walked around and spat on the pathways next to our home, it's so dirty, it is not clean [e rang barekareka, e rang aki itiaki] (P11_F_M1_060918).

This woman perceived the unclean environment in the urban area contributed to the exacerbation of her son's asthma, while in the rural outer island it was clean, and therefore that environment contributed to making her son well (P11_F_M1_060918). This woman explained that while her son lived with her parents in the outer rural area, he never suffered from asthma compared with when her son was with them in the urban capital island, her son was frequently admitted to the hospital for asthma attacks. She further explained:

...just before we left Tarawa [for New Zealand], my parents in law came from the outer island to drop off our son, and then he started to have trouble breathing,...yes, before we left Tarawa... but to me it was because the houses in Tarawa were too close... (P11_F_M1_060918).

While this participant anticipated that her son's asthma would be exacerbated with the cold weather in New Zealand, she was surprised that her son's asthma was not as frequent as when they lived on the urban island of Kiribati. This woman stayed with her family members on a farm and she believed that this was because New Zealand is clean and has cool fresh air compared to the warm and dusty weather of the urban island of Kiribati (P11_F_M1_060918). Thus she maintained that a clean environment was important to them to maintain health and wellbeing.

Knowledge surrounding cleanliness in the preparation and application of medicinal plants, were emphasised by another male participant. He mentioned:

...and the traditional healer, she was so smart, she picked the medicinal plants' leaves...I was not sure what they were... she pounded them and squeezed the juice and applied it to my daughter's throat,...and I said to myself, [ao ngai I a bon taku,.. a bon itiaki nako ana bwai n aoraki te aine aio?... e bon teboki nako baina ke kanga ngke e karaoa te bwai n aoraki, ...kanga ko a manga bon raraoma, e mena ao e a worse riki natiu] are those clean? ... did she washed her hand? Like you are so worried, that

my daughter's condition might get worse...(P03_M_M1_060718).

4.2.2 ILLNESS CAUSED BY BREAKING ANCESTRAL TABU

Other participants clearly communicated in their *karaki* a range of perspectives about the causes and management of health and illness. The causes of illnesses varied from supernatural power, to not adhering to healing protocols, and not respecting senior family members. Other participants believed that health and illness could be managed by engaging with their own supernatural power, adhering to the protocols of their traditional practices, enchanting their gods, the use of shamanism, abandoning their conjurations for the Christian faith, or changing their unhealthy lifestyle and bargaining with God for the healing and cure of a disease.

A woman in her late forties, was trained by her uncle to be a traditional healer while she was in Kiribati. She explained that she had to adhere to certain protocols when massaging a patient. She further described that the protocol included the unravelling or unknotting [*kabwaraa birotona*] of a possible spell that causes the patient's abdomen pain prior to commencing the actual massage treatment (P07_F_M1_090818). She explained:

He [the uncle-a traditional healer] unravelled [kabwaraa birotona] first before massaging the abdomen, it was funny as I observed, he swore out loud to the evil spirits that caused the illness...so that he [the healer] would not be affected by the illness when he massaged... (P07_F_M1_090818).

This participant further described that there was one time when she was sent by her uncle to attend to one of his patients and to perform the abdominal healing massage. This participant assumed that she did not need to unravel this patient's abdomen [*kabwaraa birotona*] before she started the second massage treatment as she knew that her traditional healing trainer had performed this during the first massage treatment. She described that during the massage, she became physically affected. She stated:

...and then when I massaged this patient's abdomen, I could feel my hand [dominant hand used to massage] was numb, ... and then when I came back to massage her the next day, the numbness started again in my hand but it extended to my upper arm, ... and on the third day of the massage, the numbness extended from my hand to all of my arm and up to my head (P07_F_M1_090818).

She added, I reported to the healer the next day, and he told me off for not complying with the rules of the massage and that I needed to adhere to these for my own safety (P07_F_M1_090818). This participant explained that the numbness that she felt on her arm was a sign that this unwell person's illness was caused by a supernatural power.

Another participant, a woman in her late forties perceived that her mother's four miscarriages were caused by evil spirits (P14_F_M1_220918). She explained:

...this is the story that I was told...he [my father] was told by his ancestors [via a dream] not to lie on the left side of my mother because it was bad, if he wanted a child, he would listen to what he was told (P14_F_M1_220918).

This participant went on:

I was lucky to be born alive. My mother had three miscarriages before I was born...then my father's ancestors [tibuna] instructed my father that if he wanted to have a child born alive, then he needed to lie at his wife's right side, not the left side because it was bad... (P14_F_M1_220918).

This woman also perceived that while there were benefits of practicing the conjuration of ancestral spirits to reveal future influencing courses of events or identify the causes and management of illnesses, she also believed that disrespecting their ancestors' cultural *tabu* was weighted with negative health consequences. She explained this with a sad tone of voice:

My father's sister died at a young age because of these [supernatural powers] ... it seemed like she was killed from those things (P14_F_M1_220918).

When this participant told her *karaki*, I noticed at some point, she spoke in a heartfelt tone but demonstrated eagerness and excitement to reveal her *karaki*, but at the same time she emphasised the secretness and sacredness of her *karaki*. She stated:

*...Iaa, ko ataia, kanga e bon aki kakarakinaki ma tao e a bon boo
moa taina ngkai n karakinaki...*

English translation:

*...you know, this story has never been told, but maybe it is time
now to reveal and tell the story...*

She further told her *karaki* that the loss of her father's sister prompted her grandfather to abandon his traditional supernatural evil shamans, asked both the nuns and priest to pray for God's protection from the evil spirits, and became active in the Christian Catholic faith. This participant added that he believed this was the only way that his family would be protected. She further added that in return for the prayers of protection, the grandfather donated one of his plots of land to the Catholic mission as a security for the lives of his family. This woman highlighted important aspects of cultural *tabu* practices, obeying the ancestor's protocols, converting to Christian faith and reciprocity were all part and parcel her health and illness perception.

A father of six children mentioned that he prayed to God to give strength to one of his daughters who battled with cancer and bargained with God that in return he would change his lifestyle and quit smoking. He explained:

*While my daughter underwent the surgical procedure, I spent all
that time in a chapel praying to God and asked him for his mercy
to heal my daughter, and in return I would quit smoking
(P03_M_M1_060718).*

He further added:

*The procedure went well, and I was so happy. I kept my promise
to God to quit smoking, and I believe that God has spared the life
of my daughter,... she has been keeping well and her cancer has
been well controlled (P03_M_M1_060718).*

A woman in her late forties believed that engaging with her Mormon church 'words of wisdom' was significant for maintaining health (P15_F_M1_230918). She emphasised that consuming 'clean' food and drink was one way of living the 'words of wisdom'. She described:

We are taught not to eat foods that are mouldy, not to consume foods and drinks that are classified as a 'drug' or that have caffeine in them because these will affect not only our health but our beauty too (P15_F_M1_230918).

This participant also perceived that wearing clean clothes to look neat and tidy was also another way of maintaining health. While she pointed out that people should wear clean clothes in order to look well, she also underlined a negative perspective of I-Kiribati on how they might have looked at people, particularly women in the way they dressed. She stated:

People [I-Kiribati] gossiped about women when they saw them dressed up well you know... (P15_F_M1_230918).

She further added:

We [people of Kiribati] need to change the way we think about how we dress. We need to look at the positive side and appreciate women dressing nicely, not because you [women] want to look pretty, but it is all about cleaning your body and being healthy, therefore we need to stop this kind of attitude (P15_F_M1_230918).

However, this participant also argued that women of all ages:

...must wear clean clothes that decently cover their body, not those clothes that reveal their body, for example, skirts with a long slit at the back, transparent clothes or singlets with big arm holes are classified as not decent clothes, ...clothes that do not reveal our body are decent... (P15_F_M1_230918).

4.3 THE VALUE OF TRADITIONAL PRACTICES

The previous binoka was connected to cultural values and beliefs. Regardless of what cultural values and beliefs on how to manage I-Kiribati health, individual participants emphasised that health practices were

framed according to the participants' distinctive contexts, situations, and upbringing. The section describes the value of the Kiribati traditional practices related to the importance of: ancestral and spiritual engagement and obedience to tabu practices, respecting elders, traditional family roles, and strong family and community ties.

4.3.1 ANCESTRAL OR SPIRITUAL ENGAGEMENT AND OBEDIENCE

Most participants clearly emphasised the importance of engaging and adhering to their ancestors' cultural *tabu* practices to maintain their health, find out the causes of their illnesses, or seek healing methods for their illnesses. *Tabu* is the general Kiribati term that can be referred to as 'prohibited sacred places with visitation protocols, and ancestral practices that involve traditional etiquette'. Participants described a range of *tabu* values, beliefs, and practices within their own family jurisdictions, why they needed to adhere to their ancestors' *tabu*, and what might happen when they did not comply. Most participants admitted that they engaged with their ancestors and later adhered to their ancestors' instructions, wishes and *tabu* practices. Participants frequently spoke about two common methods of engaging with their ancestors, firstly, when their ancestors visit and communicate with them via dreams, and secondly, keeping their ancestors' shrines in their homes or a special sacred place (*bangota*), where they literally converse with them to maintain their own health. The first method was practiced by most participants in New Zealand, while the second method was not practiced by participants in New Zealand, but they had seen it practiced in Kiribati by their parents or senior members of their families.

As mentioned earlier, the 48-year-old female who believed that had not her father obeyed his ancestors' instructions, she would not have been born alive, further told a story about her late father in Kiribati who was often visited by his ancestors' spirits in the form of dreams. She explained:

It was funny and a bit creepy that when my father was alive, his ancestors often visited him [a roroko tibuna irouna] in the form of dreams, to give a warning about something bad that was about

to happen,... and gave him instructions to follow
(P14_F_M1_220918).

This participant further described those instructions given by the ancestors must be fulfilled to ensure that the family members are protected from any illness. She further explained:

My husband is like my late father, his ancestors often visit him through dreams (a roroko irouna naba tibuna)..., even here in New Zealand..., when one of our daughters was crossing the boundaries by not respecting her father ... they [the ancestors] came via a dream and told my husband to talk to his daughter before something happened to her.... (P14_F_M1_220918).

This participant further elaborated (with a bright animated voice), *and that was why I thought when our daughter (the one that she believed did not show any respect) developed a rare illness...he [participant's husband] was sad because he knew this was the consequence of his daughter not respecting him* (P14_F_M1_220918).

Another participant, a woman now 49 years old, disclosed that as a child in Kiribati, she had to keep to her late father's *tabu* by respecting his shrines that were placed in a special hut where he used to practice his supernatural healing practices. She explained:

I remember my father had a small local hut with a raised floor [te bwiaa] where he kept all his shrines... and no one was allowed to enter the hut because it was sacred [tabu]... that was where he practiced his chanting and healing (P19_F_M1_121018).

Participants did not mention keeping ancestors' shrines here in New Zealand, but they mentioned being visited by their ancestors via dreams.

Not only did the participants feel a need to respect their ancestors, they also described respecting the elderly people and senior members' instructions and advice. Most participants stated that respecting their ancestors brought about health and peace within their minds and body while others described that appreciating and adhering to instructions and advice

from elderly people and senior members of the community would keep them safe during their life journey.

4.3.2 RESPECTING AND OBEYING ELDERS' WORDS OF WISDOM

A 49-year-old married woman spoke about how her father provided ongoing teaching of how she would behave and demonstrate Kiribati cultural values. P19_F_M1_121018 stated that she was grateful that her father constantly taught her the importance of being respectful to others, tolerant, loving and always apologetic and willing to make peace to resolve any disagreements she might encounter in her life. She stated:

I was thankful that I had the opportunity to learn my Kiribati cultural values from my father. He constantly taught me that I must be respectful, tolerant, loving, apologetic and be ready to reconcile and make peace in times of disagreement (P19_F_M1_121018).

She believed that living her father's words of wisdom and demonstrating these values, gave her peace of mind, made her feel safe, live peacefully, get along well with her family, the community, and the people around her. As a wife, a mother, and a grandmother, she often told the story of her father's words of wisdom to her children and grandchildren and made sure that her children and grandchildren also always demonstrated these values.

Disobeying senior family members' instructions, breaking rules, or disrespecting their ancestors' cultural *tabu* was attributed to negative health consequences. A 40-year-old female, married with two children, recalled when she was about 10 years old, she broke her parents' instructions by going with her family members on holiday during Christmas break to their rural outer island, despite having been told not to. She remembered:

I regretted I went against my parents' instructions who initially did not want me to go to the outer island on the Kiribati local big canoe [waa-uoa],... I tried not to vomit on the canoe,... but then it got worse when we got to Abaiang [outer island],... they [Uncle & Aunt] were going to talk to my parents to arrange for my return

to them [to the capital island], like you were not allowed by your parents but I still went... (P17_F_M1_111018).

A number of the participants discussed their struggles they faced when they went against Kiribati cultural values causing disappointments to their parents. Four of the participants became pregnant before they went through the Kiribati formal engagement rituals and marriage ceremonies. A female participant in her late 20s, explained how hard it was for her to reveal to her parents that she was pregnant with her first son at the age of 18 years old because she did not want to bring shame to her parents (P18_F_M1_111018). While she was unwell with morning sickness, she made sure that her parents were not aware of her symptoms of pregnancy:

I hid myself when I wanted to vomit or if I became sick. In the morning I would wake up like every other girl in the house and I put on make-up to hide my face, I used the Mayfair cream because I knew that I looked different due to pregnancy, as I didn't want my parents to be suspicious, and I did not attend any social functions, I usually stayed at home (P18_F_M1_111018).

In reference to the Kiribati traditional practice of caring for a pregnant woman, where the parents and close family members must be informed and be responsible for the health and wellbeing of the pregnant woman, this participant had missed out on the family nurturing, for example the close family members must make sure that she was rested well, not doing any house chores and provided with her food preferences. On the other hand, while she stayed at home concealing her pregnancy, she unconsciously kept the rules of pregnant women not allowed to walk about at night for fear of the evil spirits causing harm to the mother and baby.

While she did not want to disappoint her parents, she was unconsciously thinking about the consequences of her health and the health of her baby. She said that while she knew she was baulking the engagement and marriage rituals, she believed that concealing her pregnancy was the only way not to upset her parents. She did not access a health service for a check-up over the last eight months as she feared the community might know she was pregnant. She tried to compensate for her

baby's health by eating well. Key concepts that emerged from this woman's *karaki* were the importance of understanding the impacts of social-cultural contexts on the health well-being of unplanned teenage pregnancy, and the level of family support.

The 49-year-old married, employed mother and a grandmother, recalled her experience when she also got pregnant at the age of sixteen without a proper cultural marriage protocol (P19_F_M1_111018). She explained that her behaviour broke her parents' hearts because she did not go through the engagement process and the marriage ceremony. She stated that whilst she knew she had been disrespectful to the cultural protocols of engagement and marriage, she believed that she showed respect by confessing to her parents. She stated:

All I had to do was to apologise [I a bon kakabwara naba au bure] for letting my parents down (P19_F_M1_121018).

She further stated:

I was lucky my father constantly taught me that when I made mistakes, to always be respectful by apologising and always being ready to make peace (P19_F_M1_121018).

This woman claimed that showing respect by being honest to her parents was the reason why she has always been in a state of *mauri*, had not experienced any complications during her first delivery, and has always been blessed with good health and wellbeing.

All the identified *koran* discussed under the first *binoka* clearly reflected the participants' health and wellbeing and influenced their decisions to manage their health. The perception of health and illness *binoka* was connected to cultural values and beliefs. Regardless of what cultural values and beliefs on how to manage individual participants health and illness emphasised that their health perceptions were framed according to their distinctive contexts, situations, and cultural upbringing.

4.3.3 STRONG FAMILY TIES, EXTENDED FAMILY COLLECTIVE ROLES, AND SUPPORT SYSTEMS

Understanding the social-cultural contexts of I-Kiribati and their roles and responsibilities as individuals within a family system are important for I-

Kiribati' health and wellbeing. This was evidently revealed in a sixty-year-old female participant's *karaki*, where she stressed how the New Zealand social-health systems failed to understand her Kiribati cultural values, in relation to the parenting system (P26_F_M1_141018). She further described that the New Zealand social health system ordered to remove her grandson from her daughter who suffered from mental and medical health conditions, and placed him in foster parents' care. She stated:

I am so annoyed and frustrated with the social system here, it's not in line with our Kiribati cultural values, it is so wrong, who does that... to have your grandchild raised by foreigners? ... I was not involved in the decision..... you as a grandmother,...(P26_F_M1_141018).

She felt annoyed that as a grandmother, she could not build a bond with her own grandson, and that she had to go through the trouble of picking up her grandson from the foster parents' house and dropping him at the day-care school, and then be supervised at the foster parents' place, while building rapport with her grandson. She exclaimed:

We are caring people... the building of the bond between myself and my grandson was not necessary, he is my bloodline. It is a grandmother-grandson bond and the system to take my own grandson to be raised by strangers was not right, this is not our culture. We don't build rapport with our own immediate family; it is already there. It is our responsibility as grandparents to step in to support our children by helping to look after their children (P26_F_M1_141018).

She continued:

I love my grandchildren and I would do anything to help them out, it is my responsibility to look after my grandchildren and my children trusted me as a grandmother to look after their children (P26_F_M1_141018).

This grandmother felt helpless that she could not fulfil her family responsibilities as she must comply with the New Zealand social and health system. She believed that she did not need to go through the process of

building rapport with her own grandson, as she was related to her grandson by blood. She also described that the foster mother was touched by her love and care for her grandson and expressed that she had never come across anyone who provided so much care and support for her grandson and daughter, pitied her that she had to go through such processes in order to have her grandson back from foster care. This participant also added that she needed to regain custody of her grandson otherwise she would not have a peaceful and healthy mind, become sad and mentally affected (P26_F_M1_141018).

This emphasis on family ties were seen as important by all the participants. Connectedness was identified as a fundamental element of health and wellbeing of an individual within a family.

Of the thirty participants, seventeen, or over half of the study participants, live with their extended families while the other thirteen or almost half live with their nuclear family. All maintained a physical connection with their extended family which included the participant's partner, children, children's partner[s], grandchildren and grandparent[s]. Participants regularly mentioned their own roles and responsibilities within the family that demonstrated the value of family connectedness and great family support. All participants emphasised the value of an extended family and the significance it has on their health and wellbeing.

A 44-year-old married female who is a mother of four children-the youngest only one week old clearly appreciated the support she received from her mother throughout her pregnancies, during, and after four deliveries (P30_F_M1_151018). This participant believed that her mother's support added value to her health and the health of her infant. She explained:

It is important that during pregnancy, at birth and after birth, that the mother of the pregnant woman helps, especially after birth, while the nursing mother concentrates on her recovery, regains her strength, and gets adequate sleep and rest (P30_F_M1_151018).

However, at some stage, a pregnant woman invites her mother to stay with her during the course of her pregnancy to help with domestic chores or minds the older children. To reflect on the Kiribati culture, it is a common practice that a pregnant woman moves in to stay with her parents as they provide support during her pregnancy.

Most participants clearly underlined the extended family collective responsibilities to keep their children healthy. This 44-year-old mother remembered as a young child in Kiribati:

It was like a family routine, ..., they (aunties, uncles and parents) normally gathered together like once a month, to prepare the medicine,... the local medicine that would cleanse our gut system,... they grated the coconut,... squeezed the coconut milk and prepared the oral oily remedy. About ten of us children took the prepared remedy, they supervised us drinking this..., and you know, the coconut water we drank it in between taking the oil remedy (P30_F_M1_151018).

In the same fashion, other participants also explained how they were raised by their grandparents when they were young while their parents were engaged with other family commitments. A 28-year-old female described the support she received from her paternal grandparents:

I remembered we [her sister, two cousins and herself] were sent back to our grandparents in Tabiteuea [rural island] to live with our grandparents because our parents were busy working in government offices. There were four of us, and we were aged between 2 to 4 years old. Our grandparents did their best to raise us... at the age of 6 years old, I was sent back to my parents with another cousin who turned 6 as well... we were sent back to our parents in the capital island to start primary school (P28_F_M1_151018).

A participant now in her late 60s, told her karaki about how she was put in-charge of her siblings' wellness by her parents when she was a teenager, while they were busy working on their land on a daily basis. This participant stated that as the eldest of her family, she was put in-charge of

her younger siblings, given the responsibility of cooking her siblings' meals, entertained them by playing with other kids, and bathing them as if they were her own children, while her parents worked on their land, cultivating their crops for the family living. She attributed the health and wellness of her siblings to her family duties (P12_F_M1_220918).

It looked like I was the parent to my younger siblings, and I was only a young child too, I was 12 years old; not just minding my siblings but I bathed them, cooked for them, even I took them to play with my peers while our parents were busy working on their lands... But I loved looking after my siblings (P12_F_M1_220918).

Collective family support was also emphasised by some participants. A 49-year-old male expressed the support he received from his different family members when he was six years old (P06_M1_090818). This participant explained that he came to the capital island at the age of four years old. His mother was referred to the main hospital in the main island for treatment, so she had to take him with her while his father stayed with his other siblings in the outer island. His mother suddenly passed away while waiting for treatment on the main island. He recalled he was moved around to stay with different family members before his father could come to take him back to their rural island. As this male participant told his *karaki*, he looked sad and a bit teary, as he stated:

I was staying with some relatives, I think he was a policeman, I stayed with this family for a while... I was about ten years old when my father took me back to our home island (P06_M1_090818).

A peer support protection system within the family was also revealed in this study. The participant who got pregnant at the age of 18 years old also described the support that she received from her family members of the same age as herself. (P18_F_M1_111018). She was supported by her female cousins who protected her secret from her parents, as she was pregnant by her boyfriend without proper cultural engagement and marriage rituals. The cousins covered for her when she felt nauseous, they would let

her take a rest while they completed her chores; for example, hand-washing the entire family's dirty clothes, fetching and carrying water buckets from the well for the family use, cooking for the family and cleaning inside and outside the house. She was secretive about her pregnancy and managed to conceal it from her parents. She said:

I was lucky that my cousins were very supportive and were very helpful by doing my chores... they made sure that my parents were not getting any suspicions about my pregnancy
(P18_F_M1_111018).

4.4 KIRIBATI TRADITIONAL HEALTH PRACTICES AND HEALTH-SEEKING BEHAVIOUR

This section is divided into six main sections, these include: 1) traditional gifting of inherited health knowledge and skills; 2) traditional pain healing methods; 3) self-diagnosing and health-seeking behaviours; 4) healthy food and its production; 5) Beauty, physical support and wellness; and 6) the use of western health services.

4.4.1 TRADITIONAL GIFTING OF INHERITED HEALTH KNOWLEDGE AND SKILLS

Participants were committed to sacred traditional health practices and saw this as one of the strengths of their community to preserve their cultural upbringing and identity. Many discussed attending parties or community gatherings, which they referred to as *botaki*, where they maroro or conversed with each other sharing their *karaki*, and other information about their families, work, church, social functions, and how they were doing in general. *Botaki* can be hosted by a family and often the whole community is invited to attend, or it can be a community feasting where I-Kiribati community members bring their dishes and drinks to share with everyone, or a host provides for the whole community.

Most participants pointed out that they gained knowledge from the *botaki* when a member of the host family shared their sacred family healing remedies as a reciprocal gesture to thank the people who came to their

botaki. Or vice versa, when an invited guest made a speech and shared a traditional healing method to thank the family hosting the *botaki*. Most participants mentioned that sharing sacred knowledge in the *botaki* is often referred to as *te uee* which translates to ‘the flower’. The traditional concepts of *te uee* is one reason for a family member to reveal their secret traditional knowledge publicly. Kiribati tradition is normally for family members to keep their sacred inherited knowledge, passed down from their ancestors to their generation, thus keeping it, within the family circle (Uriam, 2017). However, some participants stated that there were appropriate times when I-Kiribati share their inherited traditional practices as *te uee*, during a *botaki*.

A widow in her mid-50’s stated:

You know, this anai maraki [absorbing of the pain through oral healing words] skill is not mine, [tiaki rabakau],. It is ‘the flower’ [te uee] shared at the funeral of one of our work colleagues (P05_F_M1_260718).

This participant described that during a feast following the funeral of one of her work colleagues in Kiribati, the father of her deceased workmate shared this *anai maraki* technique to everyone who attended his son’s funeral. The father made a formal speech and at the end of his speech, he shared this *anai maraki* in honour of his deceased son. This participant further described that, revealing a family healing practice was not commonly done in public, however, the father of their deceased colleague willingly revealed his *anai maraki* technique as ‘*te uee*’ in honour of his lost son. This participant further described:

...he never revealed his family secret healing remedy... but now he would share it and dedicate this to his son who had just passed away... I immediately took a pen and a piece of paper to write this down [laugh]... (P05_F_M1_260718).

This participant was giggling as she told her *karaki*, indicating that she was a bit cheeky, knowing that sharing traditional healing methods was rarely done to people outside the family circle, and that she took the liberty to take notes of the traditional pain healing method. This participant has been using this traditional pain relief technique at times when any of her

children or grandchildren have been in pain, e.g. headache, sore legs, arms, abdomen.

In some instances, I-Kiribati would voluntarily share their family remedies with the public during a *botaki* to demonstrate their happiness. A 42-year-old mother also took the liberty to learn from a person who shared a traditional healing method for internal fever (*ringan te kabuebuen*). She explained:

And people are kind of funny, during a botaki, they would stand and make a speech and say, yes, I would give 'a flower' [ngaia n na uee], like how to massage to reduce fever [ringan te kabuebue], and so I listened and learned, and then later on when my child had a fever, I kind of remembered the remedy and I tried..[laugh]... and then the fever was gone, it worked, and then I said to myself, wow I know, I have the skill` [ngaia I a bwaati bwa e a mwakuri...] (P17_F_M1_111018).

While this participant told her *karaki*, she demonstrated a disbelieving tone of voice, but her child became ill with *te kabuebuen* [fever] she performed *te uee* on her child, and it was effective, her child's fever abated.

Traditional gifting of inherited healing methods was also seen by some healers. A participant told her *karaki* that she was taught by a Kiribati traditional healer how to treat her daughter's asthma. After the first session of traditional massage (*riring*), the healer offered to teach this woman how to massage her daughter when her asthma symptoms exacerbated. The healer told her:

...come, you need to learn how to massage your daughter,...so you can massage right away if you see your daughter is having trouble breathing again... is important for you to learn how to massage your daughter,... (P23_F_M1_130118).

This participant stated that the healer felt for her having to travel so far to seek traditional treatment and thus, offered to teach her the skills. This participant gained these skills and believed that this massage was very effective because her daughter's asthma symptoms were relieved following this massage, her daughter had not suffered from frequent asthma attacks

following the massage, and she had later grown out of it (P23_F_M1_130118).

A traditional healer, a woman in her late sixties, who was also a participant, while she told her *karaki* of treating I-Kiribati, she did not shy away from helping those who approached her for her *riring*. She even offered to teach those she massaged and their support person while performing the *riring* to treat the ‘*teke*’ (chest pain when breathing) or the ‘*kai*’ (stiff neck),_so that these patients and their support person could perform the *riring* by themselves when their symptoms exacerbated (P16_F_M1_111018).

Passing traditional healing knowledge and skills within a family is the usual practice among I-Kiribati, however, the healer must decide on who the knowledge and skills needs to be passed on to. A 33-year-old participant, while at a young age in her teens, was trained to be a traditional healer. It was unusual for her age to be taught, as she was still in secondary school, but this participant mentioned that her uncle insisted that she learn how to *riring* for abdominal pain (P07_F_M1_090818). She described that she accompanied her uncle when he was called out by those who needed his traditional healing. In the same vein, a woman in her fifties revealed how she learned the pain absorption (*ukaki*) method from her parents, and since then she has constantly used it to alleviate any type of pain that her family members might complain of (P01_F_M1_060718). She described:

...I was fortunate I had the time to learn from my parents the anai maraki (absorption of pain), ... just as well I learned, ...you know, and now I can manage any pain that my grandchildren complain of,... (P01_F_M1_060718).

Some participants regretted that they did not learn their family inherited traditional healing practices from their parents. This was either because they felt they were too young to learn at the time, or they did not think that learning the knowledge and skills was important at the time. A male participant whose late mother was well-known by her village people for treating asthma, regretted that he did not consider learning this traditional healing method from his late mother (P08_M_M1_160818). He

was disappointed this traditional healing method has not been passed down to his generation.

In amongst the traditional health practices that were discussed, participants focused mainly on health practices to manage pain, to manage specific illnesses, to support pregnancy and mothers, and to support child health and wellbeing. Participants described different types of pain including abdominal pain, leg pain, headache, body ache, toothache, sore throat, painful stiffness of the neck which participants referred to as the *kai*, and a pleuritic type of pain known as the *teke*. The next paragraphs will describe the four main types of traditional pain healing techniques that participants used. These include, 1) *kotokoto*, 2) *anai maraki*, 3) *ukaki*, and 4) *riring*.

4.4.2 THE KOTOKOTO TRADITIONAL PAIN HEALING

The first type of traditional pain healing method was the application of a light sudden touch of an ember made of heated wick known as the *kotokoto*. The word the *kotokoto* literally means to keep pointing at. The wick was made of two long pieces of cloth about one centimeter wide and ten centimeters long, rolled together like the 'kora' to form a wick. The wick ember was then applied to the painful parts of the skin quickly for one to two seconds without burning the skin.

A married woman in her early fifties mentioned that she learned the traditional *kotokoto* to relieve the *kai* type of pain from her parents who were well-known by the village people in Kiribati (P01_F_M1_060718). She explained:

And this [kotokoto technique] was given to my grandparents through a dream [te kanoa ni mi], and it has been passed down from our family from generation to generation...I was lucky I was given the chance to learn this skill by my parents... I was able to retain this skill in my mind... (P01_F_M1_060718).

This woman further told her *karaki* that while in New Zealand, she has performed the *kotokoto* first when she was approached by an I-Kiribati male relative who knew about this woman's parents who were well known by the village people as having the skill of the *kotokoto* technique to relieve pain

(P01_F_M1_060718). The relative was unable to work due to severe joint pain in both legs and asked this woman if she had learned her parents' *kotokoto*, and if she did, could she apply it to relieve his leg joint pains. She explained:

...I told him I haven't practiced this since I was taught, ... but then I applied the kotokoto [a long pointed ember], to the areas that were painful in his legs, ... a gentle but sudden point to his legs with the beam of wick ember, and he was suddenly able to walk again following this kotokoto (P01_F_M1_060718).

On another occasion, this participant was also approached by those who had heard about her *kotokoto* skills to treat the *kai*, to treat a woman who had a severe, stiff painful shoulder. This participant shared her experience that she was terrified when she saw this unwell woman who could not move her frozen shoulder due to severe pain. She added that she felt sorry for this unwell woman and felt obliged to treat her. She stated:

I was so terrified when I saw this woman with a severe, stiff painful shoulder, you know, she was bathed and dressed by her husband, and I learned that she was going to sit an exam soon, ...but she was lucky, at the completion of having three days of my 'kotokoto' treatment, you know, we always have three days for everything, and the third day of the 'kotokoto', she was well and up and about, ... she was able to sit her exam (P01_F_M1_060718).

4.4.3 ANAI MARAKI TRADITIONAL PAIN HEALING

The second type of traditional pain relief method that most participants used was the absorption of pain which translates to the '*anai maraki*'. There were two types of *anai maraki* that participants used: a gentle massage that combined with muttering of specific words' referred to as the *riring ma taetaena*, and a gentle blow *ukaki* from the mouth to a painful area.

An I-Kiribati woman in her early fifties described how she helped a work colleague in Kiribati who complained of a sudden onset of abdominal pain (P05_F_M1_260718). She stated that before the ambulance arrived to take her workmate to the hospital, she approached her colleague and

silently applied the *anai maraki* using a gentle touch to her colleague's abdomen with muttered healing words to absorb the abdominal pain; the *riring ma taetaena* (P05_F_M1_260718). She stated:

...and what I did was just to apply the anai maraki...my colleague did not know that I was going to absorb her pain,... I asked my work colleague to lead my hand to the area in her abdomen that was painful, so I applied a gentle touch on her painful abdomen ... I took a deep breath and muttered to myself the healing words, (P05_F_M1_260718).

This woman stated that she continued to do the *anai maraki* until the ambulance arrived and she noted that her workmate was not complaining of pain and appeared comfortable after completing the *anai maraki* sessions (P05_F_M1_260718).

In New Zealand, this participant continued to practice the *riring ma taetaena* on her children whenever they complained of any pain, but she stated that she could not share publicly or treat other people outside her family with the *anai maraki*, because it was not the skill she inherited from her family. She said she would shy away from letting the community members know she has the skill as this was not actually her own or acquired from her family heritage. She mentioned:

...e kamama ae ko nang bon bwainnaoraki n te bwai ae tiaki rabakaum, [it is embarrassing to use the treatment publicly that does not belong to you] (P05_F_M1_260718).

Another participant, a woman in her late forties, revealed that her husband was known by some of the Kiribati community members here in New Zealand, for his *anai maraki* skills in the form of the *riring ma taetaena*. She said that her husband has helped some of the Kiribati community members who were complaining of dental pain by applying this type of *anai maraki, riring ma taetaena* (P14_F_M1_220918). A gentle light massage is applied to the swollen area of the jaw and at the same time the healer muttered ritual healing phrases. This participant stated that this had not only helped the community members to relieve their toothaches, but it also

saved them some money by not regularly visiting their dentist as their dental pain was managed. She said:

Many I-Kiribati knew that my husband could absorb the pain, you know, it is expensive to see a dentist, so they asked my husband to help... and in the end they did not go to the dentist because their toothache stopped (P14_F_M1_220918).

The second type of the *anai maraki* that emerged from participants' *karaki* was the *ukaki*. *Ukaki* means blow, this method of pain relieve is done by the traditional healer gently blows onto a painful area. The cool soft air blown to the painful area soothes the pain. A participant in her late fifties explained:

I constantly do this [blow to absorb pain] to my grandchildren all the time, any pain that they feel, for example when kids play around and cry because they hurt themselves or just anything, they knew I could absorb the pain, they just ran to me and asked me to absorb their pain,... I just blew to absorb the pain and the pain stopped, and then they would be running around again (P01_F_M1_060718).

4.4.4 THE RIRING TRADITIONAL PAIN HEALING

Another traditional pain healing method that participants used to treat different types of pains was '*riring*'. *Riring* is the Kiribati word for massage. Participants described a range of *riring* that they used to treat illnesses for example, abdominal pain, headache, stiff neck (*te kai*), and chest pain when breathing (*te teke*). These illness and types of *riring* will be discussed in this section. Other types of *riring* that also emerged in participants' *karaki* were for, stroke (*te boo*), internal fever (*kabuebuen te nano*), *riring* to ensure a normal and healthy pregnancy, delivery and post-delivery, and including the *riring* to correct uterus displacement. These will be discussed under different appropriate subheadings in the paragraphs below.

A 46-year-old woman also recounted how she experienced on and off abdominal pain in Kiribati and lately here in New Zealand. She explained that she usually managed her abdominal pain with the *riring* (P15_F_M1_230918). She explained:

When I got abdominal pain, I always liked someone to put pressure on my upper abdomen and gently massage it, and the pain would start to fade away (P15_F_M1_230918).

A participant in her late sixties, who was known to be a healer to some I-Kiribati, shared her story about practicing the *riring* to treat a friend of her daughter who suddenly suffered from a severe sharp pain of the upper mid-abdomen that radiated to her ribs causing difficulty in breathing (P16_F_M1_111018). This participant referred this pain as the '*teke*'. She described:

I was in the room playing cards when my daughter rushed to me and asked me to quickly come to do the 'riring' to treat her friend,...When I saw Mrs. X [her daughter's friend], she could not breath properly. She barely breathed,... I noticed her having trouble breathing,...I noted she had a sharp pain in her back that radiated to her side,...[e teke nakon nukana], she could not move or take her clothes off due to pain so we had to cut her clothes off to free her arms so I could perform the 'riring' (P16_F_M1_111018).

She further added:

I completed the set of of riring (e tarao raoi ringana) and the ambulance arrived..., but I quickly went to my room when the ambulance arrived,...[laugh]... I was scared of the 'doctors' [meaning paramedics] who came to the house,... and I said to myself, and what if Mrs X symptoms worsened, and I would be blamed because I massaged her, but her [Mrs X] pain had stopped and she could breathe normally, I knew my 'riring' worked,... (P16_F_M1_111018).

In contrast, one participant, a woman in her forties was clear about how she managed her abdominal pain while in New Zealand (P07_F_M1_090818). She said:

When I have abdominal pain, I used to apply my mother's healing method, she [mother] did not like us to have our abdomen massaged, we just applied something warm to the abdomen [te

aabue], like a warm towel onto my abdomen, because she did not like our abdomen to be massaged, and I really believe in it, it was really helpful (P07_F_M1_090818).

This participant revealed that she has kept her remedies and the health practices that were passed down from her mother, and that she was clear in her mind that she uses her mother's remedy as the first line of treatment for abdominal pain.

4.4.5 SELF-DIAGNOSIS, ILLNESSES, TRADITIONAL REMEDIES, AND REMEDIES SUBSTITUTION

There were many other remedies proposed by participants to manage headaches and 'internal fever'. Participants translated 'internal fever' as *kabuebuen te nano* illness which means fever that originates within the body. Participants shared common ways of self-diagnosing or recognising a person who might have a *kabuebuen te nano* illness and as well as the common traditional remedies to treat this illness. These common signs and symptoms of the *kabuebuen te nano* illness include a pattern of personal behaviours for example, a person not completing the household chores, looking idle, inactive, sleepy and tired all the time. Participants also said that those who are always late to wake up in the morning are considered as being unwell with *kabuebuen te nano* and must be treated with a traditional *kabueben te nano* remedy.

One participant, a woman now in her mid-fifties, described that as a young child, her parents were clear about recognising the signs and symptoms of *kabuebuen te nano* illness and the right time they needed to treat their children with the appropriate remedies. She explained:

...And our father just then looked at us, then said: "it's time for you to take the oily remedy [ko nang ria n mooi n te bwaa] to induce your bowel motions to cleanse your system [bwa ko na kabekanakoaki], because you look unwell, you are sleepy all the time and you look sluggishly inactive and lazy" [ko rang n taninganinga] (P10_F_M1_310818).

The participant recalled that this traditional remedy was very effective on herself and her siblings.

I felt nauseous after the remedy (n nawawaki),... I went to the toilet often,...I felt so weak,... but then when they said that when we go to the toilet often, like diarrhoea (bekanako), that the remedy worked well, ...and if we have the bekanako, they(parents) were so smart... the coconut water was made ready for that... (e tauraoi naba te moimoito ibukin anne)... but that was good, because it was supposed to be like that,... to cleanse your internal system, to get rid of the internal fever (kabuebuen te nano),... and its funny, the next day after the treatment, I felt so well (I rang namakina te marurung n te bong are imwina) (P10_F_M1_310818).

Medicinal plant extracts in combination with the *riring* and the medicinal bath of water with the soaked bark of plants were also mentioned by most participants to treat the *kabuebuen te nano* illness. A mother in her fifties who has six children stressed that *kabuebuen te nano* was manifested by symptoms of headache and fever. She described how she managed *kabuebuen te nano*:

Like for headache and fever, I used the roots of the pandanus tree extracted juice [te mamma ni waka n kaina] ... you drink the juice and then the dry extracted pandanus barks [betina] were soaked in a basin, you could also be massaged with the remaining extracted pandanus roots... the extracted pieces of bark were soaked in water and used to massage the head,... the water could be used to rinse the body to treat kabuebuen te nano (P05_F_M1_26_07_18).

This woman further stated that because the pandanus tree is not available in New Zealand, she was not able to use the bark of the pandanus tree to massage the head nor prepare the bath, but she could only do the *riring* with water (P05_F_M1_26_07_18). She further added:

Here in New Zealand, I massaged my children's heads when they complained of headache, with oil and water, and they felt better after the massage, but kabuebuen te nano might not (P05_F_M1_260718).

This was not the usual complete remedies she usually used in Kiribati, but she stated, that the headache was gone already, so might be that the *riring* alone worked.

Another participant, a woman with a relatively young family in her late twenties recalled how her stepmother used to prepare extracted juice from the pandanus roots, squeezed into a cup to drink once a week to treat *kabuebuen te nano* as well as to maintain her wellness (P18_F_M1_111018). She explained:

I remember my stepmother used to make use of the local medicine to drink every Saturday. She was very keen to make these traditional oral remedies from the pandanus roots. She squeezed out the juice into a cup and we drank it. Her belief was that it would keep us well and prevent us from getting kabuebuen te nano (P18_F_M1_111018).

This participant emphasised that as a child, she witnessed the effectiveness of this routine oral remedy as her skin was smooth and shiny, and she had never suffered from any skin diseases (P18_F_M1_111018).

There were many other remedies revealed by participants for a range of symptoms and illnesses including asthma, burns, chickenpox [*te bwatata*], conjunctivitis and smallpox [*te baok*]. Participants enumerated a range of traditional health practices that they used to manage these illnesses.

A male participant in his sixties explained that in Kiribati, his mother used the *kotokoto* technique to relieve symptoms of asthma including troubled breathing and the asthma cough which he referred to as the '*bekobeko ni bua ni ike*' in young children (P08_M_M1_160818). He explained:

Mothers often brought their unwell children with trouble breathing to be treated by my mother with the 'kotokoto',...she twisted the two pieces of cloth like making 'te kora' as if you are making a wick out of the two thin long pieces of cloth... she lit the wick and gently applied the heated wick to specific points that she had felt after massaging the baby's chest and back, it was a quick

gentle kotokoto [kotokoto n te mwakaro], the child would cry and had a sudden jerk, but their troubled breathing would eventually be relieved (P08_M_M1_160818).

Participants also described how they substitute their Kiribati traditional ingredients with ingredients that are similar. Some participants described a range of remedies they used to manage toothache. A woman in her thirties explained that in Kiribati, her mother used the extracted juice of a few ripe scaevola sericea [*te mao*] fruits as a topical application to relieve her toothache (P07_F-M1_090818). She explained that her mother squeezed the juice into a tablespoon, heated both the spoon and the juice of the scaevola sericea, and applied it to the affected tooth (P07_F-M1_090818). But as the scaevola sericea tree is not available in New Zealand, this participant thought that lemon juice would be a possible substitute. She explained:

I was in so much pain [toothache] and I remembered my mother's toothache remedy. And then I thought there were lots of lemons in our kitchen, and I thought the lemon might taste like it [scaevola sericea], so I squeezed the lemon into a cup, and then I thought, my mother actually heated the juice of the scaevola sericea ripe fruit [uaan te mao], and so I heated the juice of the lemon in the microwave, cooled it down a bit, ...and it smelled like it [scaevola sericea juice],...and applied it...,and I said to myself, woah! what if this new remedy would make my toothache even worse? But I had to apply this as I knew Panadol did not work to relieve the pain. And I gargled it... it tasted so bitter like the scaevola sericea... I left it for a while in my mouth and then spat it out (P07_F-M1_090818).

This participant described that to her surprise, she could not feel any pain after applying her invented toothache remedy. She also emphasised that apart from pain, the high cost of the dental health service in New Zealand was also the driving force for her to use the invented remedy as the substitute for her original Kiribati toothache pain relief remedy (P07_F_M1_090818).

One participant in her fifties stated that as a family in Kiribati where sea water is easily accessed, they used sea water as a mouthwash for the purpose of cleaning their teeth and as well as preventing any tooth decay (P01_F_M1_070618). This participant further added that in New Zealand, as sea water is not easily accessible, she reinvented the sea water mouthwash by mixing water with iodised salt and used it as the family mouthwash in place of the sea water. She further stated:

I always made a bottle of salted water available in the bathroom, and my grandchildren knew the routine of rinsing their teeth with this salted water (P01_F_M1_070618).

As mentioned earlier, the participant whose son suffered from asthma as a baby, explained that her son did not have any asthma attacks when he stayed with the grandparents in the rural outer island because he was given traditional remedies of the pandanus roots (*te mamma ni waka*), juice, and the juice of the morinda citrifolia on a regular basis to prevent any asthma attack and to keep him generally well. The participant could not find the morinda citrifolia plant in New Zealand and therefore used ginger roots. She soaked a few pieces of diced ginger root in warm water for her son to drink as a substitute to the morinda citrifolia (P11_F_M1_060918). She explained:

...then when my son attended daycare, I noticed he coughed when I picked him up from the daycare. I was so nervous about him with his asthma, ... I was concerned about the cold weather here [in New Zealand], and I just didn't know what to do with him, but then my relative told me, make him some ginger remedy, ... I was so happy that this remedy is like the root of the pandanus we usually used at home [Kiribati] P11_F_M1_060918).

This woman further explained that she had no idea of the use of the ginger when she was in Kiribati, but she was happy she found the ginger remedy useful and a substitute for the traditional remedies she used in Kiribati (P11_F_M1_060918).

Some Kiribati traditional healers are available within the Kiribati community here in NZ. One participant, a mother with a young family,

sought help from a traditional healer to treat her daughter's asthma. She described that the healer used her thumbs to gently and repeatedly massage [*torobia*], her daughter's neck with oil, and where she felt lumps, the healer would gently press the lumps to alleviate the asthma symptoms (P23_F_M1_130118). *Torobia* means to gentle massage or a gentle *riring*. This participant believed that this gentle *riring* was soothing and was very effective because her daughter's asthma symptoms were relieved following this *torotorobi* (P23_F_M1_130118).

A participant recalled as a child, she had recurrent earaches which she referred to as the *wai-taninga* and was often taken to a traditional healer by her grandparents to treat her *wai-taninga*. She stated:

We were taken to the expert traditional healer to treat the earaches [wai-taninga] I couldn't remember how the healer relieved my earache, ... but it worked...and sometimes we were taken to see the nurse aid in the village, and we were given tablets to take to help with the pain, (P28_F_M1_151018).

This participant recalled that her grandmother and her mother were keen to take her and her other siblings to a well-known traditional healer who was the expert in treating children's' illnesses such as earaches and sore throats. This participant recalled that the traditional healer's method of alleviating the pain was quicker than taking Panadol. This patient also recalled:

And sometimes when I complained of a sore throat, my mother would take me to the traditional healer who was an expert at massaging the inner back of the throat... the healer put her finger inside the mouth, pressed and massaged the swollen inner sides of the back of my throat to remove the phlegm...I vomited but it was not food, the vomit was full of phlegm,... the healer believed that the phlegm had blocked my food passage, ... and then I was able to eat (P28_F_M1_151018).

She further explained:

... we normally didn't seek medical help from the doctor for a sore throat [te bwaka ni buua], we sought treatment from the

Kiribati traditional healer...the traditional massage treated te bwaka ni buua instantly (P28_F_M1_151018).

Another participant who was raised by her grandparents in one of the rural islands in Kiribati, explained that she was generally well as a child, but when she developed a poor appetite or sore throat, her grandmother often prepared a traditional medicine made from local plants (P11_F_M1_060918). She described the local medicine:

... when I had a poor appetite, she [grandmother] squeezed the juices of the ripe white and the unripe green fruits of the scaevola sericea (te mao), the youngest fruits of the morinda citrifolia (te matu n non), she placed the juices in a spoon and warmed it up and then she gave it to me to gulp, and I felt well afterwards (P11_F_M1_060918).

Stroke which is known as *te boo* was another specific illness that was frequently referred to as being treated by traditional therapies. One participant explained that her father suffered from three episodes of stroke. She realised that her father recovered well following these stroke attacks because of persistent use of Kiribati health massage practices, eating local Kiribati healthy foods, as well as using western medicine (P10_F_M1_310918). She further gave a full explanation of the cause of her father's stroke and stressed the importance of making sure that her father did not eat fatty foods, that he exercised and took aspirin to thin his blood. She clearly explained that

when I fully understood these, [effects of the medications] I made sure that I carried out these instructions accordingly (P10_F_M1_310918).

She further explained:

And my father passed away at 86 years, and he did not pass because of a stroke. He passed away due to prostate cancer which it was detected late. When the prostate cancer was detected, it had already spread throughout his body... (P10_F_M1_310918).

She also stated:

One of the practices that really helped the recovery after my father's strokes, was that he was keen to have a general massage, ...he liked to save the pocket money we always gave him but he would spend it on a gift for a traditional massager,... (P10_F_M1_310918).

Another participant, a male in his sixties told his *karaki* about his wife who suffered from stroke twice, once in Kiribati and another recent attack in New Zealand (P29_M_M1_151018). He described his wife having a long history of high blood pressure since she was in Kiribati which got worse during her pregnancies. He said that when his wife developed symptoms of *te boo* including headache, dizziness, feeling faint, and body weaknesses, he initially accessed the Kiribati traditional healer as the first line of treatment; accessing the traditional stroke massager who had supernatural power skills to heal his wife. He explained:

...and then her [wife] stroke symptoms got worse, and I called for a traditional healer who was the expert in stroke massage and supernatural skills to heal my wife... I was with him [the healer] during treatments ... (P29_M_M1_151018).

Despite a series of stroke massages, his wife's stroke symptoms were not improved. He stated:

...the healer said to me 'I have given all my might, all the powers of my sharmanism healing, you know my supernatural healing powers were always effective on all of the unwell people that were sorcery illness related, ... but not her...' (P29_M_M1_151018).

When things did not improve, this participant did access western therapy, but he did not abandon his Kiribati traditional health practices while his wife utilised western medicine. He stated:

Our local traditional healer still massaged my wife while she was in the hospital, ... to heal her stroke and to relocate her jaw...because she [wife]... wow you could not recognise her, you know, when it [the stroke attack] came to its worst peak, aaah! the effect of the illness completely deformed her face and dislocated her jaw to the point that you could not recognise her...

so he[the healer] started first by massaging her face ... it was great that the traditional healer regularly massaged her... otherwise she could have not recovered from the stroke (P29_M_M1_151018).

4.4.6 SOUGHT TRADITIONAL HEALTH PRACTICE AFTER WESTERN MEDICINE FAILED

A young mother recounted how she managed her six months old daughter when she suffered from what she believed was asthma in Kiribati (P07_F_M1_090818). After what she felt was an unsatisfactory hospital experience, she sought help from the Kiribati traditional healer. She explained:

When I heard of this particular traditional healer, I did not waste any time, I told my husband that we were taking our daughter to this traditional healer to treat our daughter's asthma... We came to the house where the traditional healer stayed, and I was told by the relatives, 'go and present yourself and ask the healer to massage your daughter' (P07_F_M1_090818).

This woman described that the healer only performed the general gentle rub massage [*torobia*] but advised her that once her daughter developed severe signs of asthma that she should immediately bring her to him so he could perform the traditional asthma massage treatment. She explained that she presented her daughter to the healer when she developed trouble breathing and stated:

even though I was doubting myself as to whether I was doing the right thing to take my daughter to the traditional healer, ... I waited impatiently as the healer massaged gently, ... and I said to myself, this not gonna work...(P07_F_M1_090818).

However, after series of massages within that whole day by the healer, this participant noticed that her daughter's troubled breathing was relieved. She further added:

It was amazing, my daughter could talk, she asked for a drink and I could see that her breathing was normal,... so that was a complete relief for us (P07_F_M1_090818).

In the light of this traditional oral remedy for the *wii boi*, another participant discussed her second child who suffered from a painful mouth condition (P17_F_M1_111018). She explained that her child's mouth and tongue were full of white patches and that the illness was worse in that her child was not able to take in breastmilk or drink. Some of the Kiribati community members visited this participant at her place, and saw her struggling to give her child western antibiotics, so they advised her to try a traditional approach:

...aaah, we know the local treatment for that.” Then they told me the name of the grass, which was clover. They explained ... “the grasses look like flowers with three petals ... and I don’t know but the clover grasses grew in the place that we rented, so they picked the clover grasses and mashed them in a bowl, squeezed the juice onto a teaspoon, one whole teaspoon... and I gave my child that. But it was funny, to my surprise my child was instantly able to drink. I don’t know... (P17_F_M1_111018).

Another participant, a woman now in her twenties, related a different approach to managing recurring headaches and fever when she was a baby (P20_F_M1_121018). She mentioned that her parents sought help from the medical doctor and was only given Panadol with no effect. This participant described that her parents sought help from a well-known traditional healer because they believed that the headache and fever were symptoms of *kabuebuen te nano* and that this illness could only be treated by Kiribati traditional remedies (P20_F_M1_121018). This participant explained after that she never suffered from that illness as a child but she explained that as a teenager, she suffered again from the same symptoms. The illness included headaches and fever and her parents took her again to the traditional healer for treatment. She stated:

The healer prepared the traditional medicine made from the juice of the pandanus roots, mixed with the young coconut water [moimoto] for me to drink, and the dry roots of the already extracted pandanus juice were sprinkled in a bucket of water for my bath [tebotebo]. I had to complete the course of this treatment

for three consecutive days, and from then on, my headache and fever never came back again (P20_F_M1_121018).

4.4.7 COMBINED ‘OTHER’ PACIFIC TRADITIONAL REMEDIES

Participants also described that they had extended the use of other health approaches apart from western medicine and the Kiribati traditional health approach. One participant, a 49-year-old woman described how she also utilised traditional remedies from another Pacific Island culture to manage her abdominal pain in New Zealand. She initially went to see her GP because her abdominal pain was worsening with associated nausea and vomiting (P02_F_M1_290618). She said that she underwent diagnostic tests including blood tests, an abdominal scan and later the computerized tomography scan. She was told by her doctor that her liver was enlarged and later they confirmed she had developed gall stones (P02_F_M1_290618). While this participant awaited her surgical procedure to remove the gall stones, she turned to a remedy that she was given to her by a friend of hers who is Tuvaluan who also has had gall stones. This participant was told by her friend that the remedy helped her not only to reduce the abdominal pain, but it also melted the gall stones. This was later confirmed in her scan, and her surgical procedure for removing gall stones was cancelled. This participant stated:

She [friend] gave me the recipe for this [gall stones] ... I tried this remedy, and it was because I wanted to find other ways to relieve the pain and get well, ... I tried this, and I felt less pain, ... I could feel my abdominal pain was reduced and I didn't feel sick anymore (P02_F_M1_290618).

She described the remedy:

...it was lime and it was mixed with olive oil...and then before you drink this, you need to first drink sea water... if not you could mix water and salt, ... so you can always fetch sea water if you can,... so we fetched sea water when we went out fishing,... you need to drink sea water to cleanse your abdomen. and then at night, I made the remedy of lime and olive oil, I drank it before

bed... my abdominal pain reduced, and I felt better...(P02_F_M1_290618).

A fifty-nine-year-old mother and a grandmother explained how she utilized her connection within other Pacific communities to manage oral thrush which she referred to as '*te wii boi*' or '*te wii ra*' in young children (P26_F_M1_141018). She described that when her son suffered from *te wii boi* he could not eat and drink because his mouth was red, swollen and sore. She used a traditional therapy which was not strictly Kiribati, as it came from another Pacific tradition:

My ex-husband's late mother-in-law who was Niuean, prepared a traditional medicine, it was actually the grass... I don't know the name of this grass but you can find it here in New Zealand..., this type of grass is also found in Niue (P26_F_M1_141018).

She explained the feature of the grass and the process of this traditional medicine for oral illness.

...the grass has three big leaves joined together. You pick lots of them, mash them up and squeeze a few drops of the juice into the child's mouth (P26_F_M1_141018).

4.4.8 COMBINED TRADITIONAL AND WESTERN HEALTH PRACTICES – PREGNANCY, BIRTH AND AFTER BIRTH

Most participants discussed the importance of Kiribati traditional health pregnancy practices to maintain a healthy pregnancy. But they individually have their different opinions and ways of how they utilised either both the western midwifery health services and the Kiribati pregnancy health practices, while others navigated between both health practices, or abandoned one practice for the other. A 44-year-old mother of four children, who started her family here in New Zealand, discussed the importance of accessing the midwifery health care services as well as her own Kiribati traditional health practices to maintain a healthy pregnancy (P30_M1_F_151018). She maintained that it was important for her to attend her appointments with her midwife to undergo a series of routine tests such as blood tests to maintain a healthy pregnancy and as well as ruling out any complications. But she also valued and utilised her Kiribati

health practices for maintaining a healthy pregnancy (P30_M1_F_151018). For example, she utilised her mother's traditional health pregnancy practices. She said:

There were times when my baby in my tummy was located in one side of my tummy. I had backpain, and I couldn't lift my leg. My mother then massaged my tummy [katiaoa] to gently help the baby move to its correct position, as when a baby is positioned on one side, it could cause backpain and the backpain could radiate to my leg (P30_F_M1_151018).

This woman stated that the pregnancy massage [katiaoa] had an instant effect (P30_F_M1_151018). Prior to the massage, she could feel that her foetus was awkwardly located on one side of her lower pelvic area which made her uncomfortable. But after the *katiaoa* [pregnancy massage], the pain was relieved, she felt comfortable, and she could move her leg (P30_F_M1_151018). When she sought help from the midwife for back pain and a stiff painful leg, the midwife only advised her to swim so the foetus can move and reposition itself while swimming. She felt that swimming would not reposition her foetus, and she decided to use the *katiaoa* as it was very effective for her (P30_F_M1_151018).

The mother of three children in her late twenties, who had her first baby in Kiribati and subsequent deliveries in New Zealand, told of a different experience. She mentioned that with her first pregnancy, she regularly used the Kiribati traditional pregnancy massage during her late stage of pregnancy (P18_F_M1_111018). She said:

...my mother made sure that every morning she massaged [katiaoa] my tummy and then I showered [tebotebo] just to ensure a healthy pregnancy... (P18_F_M1_111018).

She also mentioned that she preferred to be delivered by the *tia tobi* (traditional birth attendant) because she feared that the nurses at the hospital might perform an episiotomy on her. She explained:

I told my mother that I did not want to give birth at the hospital because I heard that the nurses in hospital, when the labour was prolonged and difficult [e bae bungim], now they just cut your

perineum without your consent [kimoaiko]
(P18_F_M1_111018).

This participant used the word *kimoaiko*, *kimoa* means 'steal' or 'rob'. *Kimoaiko* literally translates to 'steal you' or 'rob you'. In this context, *kimoaiko* means performing the episiotomy on this participant without her consent. This participant made her decision not to have her first baby in the hospital when she learned from one of her cousins that the nurses carried out the episiotomy procedure without consent. She expressed her fears:

...that practice [episiotomy] stayed in my head and that was why
I did not want to give birth in the hospital (P18_F_M1_111018).

She then decided to have the *tia tobi* to deliver her baby. She also expressed her preference to call upon the *tia tobi* who was recognised by the Health Department and who could undertake safe practices, for example the *tia tobi* used the sterile delivery set from the hospital. She was clear about being very selective in choosing her traditional birth attendant. She asked her mother:

Look, we need to book a traditional birth attendant (te tia tobi),
and you [mother] will help with the delivery, because I trust that
you [mother] have the skills to deliver the baby, but we need to
find the traditional birth attendant who is recognised by the
Health Department - one who works alongside the hospital to get
the delivery instruments (P18_F_M1_111018).

This woman further explained that despite the fact that her partner wanted her to give birth at the local hospital, she mentioned, she made up her mind to be delivered by the *tia tobi* and assisted by her mother, who was a nurse aid who had assisted registered nurses during delivery of babies. She further added that she trusted her mother and the chosen *tia tobi* whose practice was recognised by the Health Department, and who was able to order a sterile set of delivery instruments, and other sterile materials from the hospital to safely deliver her baby. She further explained that while her labour was prolonged, she was happy as she said:

...I did not even have any tears after birth, I was so comfortable... (P18_F_M1_111018).

She said that she could feel the *tia tobi* pouring lots of the freshly made natural coconut oil to lubricate and soften the birth canal to make it easier for the baby to come out. She felt that the natural coconut oil was very soothing and felt very comfortable when the *tia tobi* had supported her perineum so well, and these had helped her to safely deliver her baby without any perineal lacerations. This woman also mentioned that had she not had the delivery by the *tia tobi*, her son would not live as according to the *tia tobi*, the woman had a 'tight male perineum' [*ngake ni mwane*]. She was also told that her baby had his cord around his neck, so that these two together had made her delivery prolonged and difficult. Furthermore, while this woman's baby was born and did not initially show signs of life for about five minutes after birth, she said she was fortunate to have the *tia tobi* who applied the traditional technique to make the baby breathe. She explained:

When my baby came out, he did not cry,...he did not make any noise, ... we waited silently,... and so she [traditional birth attendant] turned my baby face down, then she held the baby's legs and tapped him,...she [traditional birth attendant] did not cut the cord but then asked me to push again to get my placenta out,... when my placenta was out, she then took the placenta and put it in a bowl of water, and she[traditional birth attendant] told me the placenta looked unhealthy [konaaki]_because the child came out not crying,... and then my baby cried,... (P18_F_M1_111018).

One young mother had her baby for the first time while in New Zealand was told that she would have to have a caesarean because the baby was in a transverse position (P21_F_M1_121018). She sought help from a Kiribati traditional healer when she was on leave from the hospital ahead of the surgical intervention. Over the weekend, she went with her husband to see a well-known I-Kiribati traditional healer for a massage and to reposition the foetus. This participant stated that as soon as the traditional healer massaged her abdomen, she felt a feeling of 'relief', not

feeling bloated as if she was always full [*tibutaua*], but she felt comfortable. She also noticed that her tummy changed its shape to an oval and felt that her foetus had occupied most of the space below her diaphragm which had made it uncomfortable to breath. She further described that the traditional healer saying '*eaka, e a bon rang kan ringaki teuaei*', meaning '*goodness, he [foetus] has been longing for a good massage*'. This participant explained that for the first one or two minutes of the massage, she felt like it was a magical gentle massage, repositioning her baby from the transverse position to the normal birthing position (P21_F_M1_121018).

Later the traditional healer stated, *he [foetus] is fine now, he is ready to come out* (P21_F_M1_121018). This participant was astounded as the traditional healer already knew she was having a boy, felt so relieved, a sense of being comfortable, and with no pain. These good feelings made her want more massage. She explained:

I felt so relieved, I smiled and felt very happy...we went back to the hospital on the very first morning on the Monday after that weekend, around 8am, when I got to the hospital, my midwife, and other doctors, rushed me to the theatre as I was booked for a caesarean section at 0800hrs, ...I couldn't stop smiling, and my midwife said, you look so happy, did you regularly do your exercises? (P21_F_M1_121018).

But this participant said that she did not admit that she had not done the exercises she was told to do over the weekend by her midwife, and kept it silent. The participant mentioned she would like to talk to her midwife at some stage to tell her the truth about her experience with the Kiribati traditional pregnancy massage. She was scanned again prior to the caesarean section and to the health professionals' surprise, the scan confirmed that the foetus had changed position to the optimal position [a cephalic presentation] (P21_F_M1_121018).

Post-delivery health practices were also highlighted in the participants' *karaki*. As mentioned earlier, the 42-year-old mother who emphasised the important roles of mothers supporting their daughters during the times of pregnancy and delivery, underlined the importance of mothers complying

with the Kiribati traditional post-delivery practices to speed up the recovery after birth and to ensure that adequate breastmilk was produced for the baby (P30_F_M1_151018). She explained:

... and she [her mother] often reminded me to make sure that I did not stand close to the heat, ... otherwise the production of my breastmilk would decrease, ... I must not lift heavy things because I had just given birth and was undergoing the healing process in my womb. If I lifted heavy things, I would get abdominal pain and backpain (P30_F_M1_151018).

As for the mother who had the traditional healer repositioned her baby and who did not go through a caesarean section, further told in her *karaki* that while she had a normal delivery, she was not able to walk after birth due to severe back pain radiating down her left leg (P21_F_M1_121018). She mentioned that Panadol did not relieve her pain, and so she turned to the same traditional healer who massaged her to reposition her baby, for a traditional massage to relieve her pain. (P21_F_M1_121018). This woman mentioned that the traditional healer believed that the pain in her back and leg was caused by the displacement of her uterus outside its cavity [*e bwakee ana kai*], and that this pain could only be relieved by massaging the abdomen, back and external anal area to reposition the uterus (P21_F_M1_121018). She further described that the traditional healer first massaged her abdomen, then her back for three consecutive days. On the third day the healer did what she referred to as the '*kateboaki*', [a sitz bath massage]. This participant explained that she sat in a big bowl of warm water and oil, and the healer massaged her external anal area in the bath. She explained the process of the '*kateboaki*':

I was squatting in a big bowl of warm water facing the healer, she put lots of oil in her right hand, ... and then massaged around my anal area and then lastly she pushed the anal area upwards with her knuckles while I was squatting in the bowl (P21_F_M1_121018).

She further described that she felt that all the organs in her body were put back in place and she felt relieved, and she could feel less pain as she

was able to sit up and walk, whereas before the *kateboaki*, she could not sit or walk due to the pain (P21_F_M1_121018).

Another traditional health practice that emerged from participants' *karaki* regarding post-delivery healing was the '*tubatu*' which refers to the application of warm compression using medicinal plants wrapped in a piece of cloth. A participant described her experience when she could not walk after her delivery of her first child in Kiribati (P05_F_M1_260718). She felt that her back was *heavy and dragging [e tine]*, and further added:

...like I could not get up ...it felt like I had a prolapse [te ruonako] (P05_F_M1_260718).

This participant also mentioned that her mother treated her with traditional medicine comprised of local medicinal plants' young green leaves [*taberanikai*], which she pounded, enclosed the pounded *taberanikai* in a piece of cloth, and tied it to form a sponge. Her mother then later applied compressed pressure on the sponge with her foot to her perineum; this technique was referred to as the *touaki* (P05_F_M1_260718). This participant also emphasised that the techniques of *tubatu* [sponging] and '*toaki*' [application of pressure] were very effective and she stated she was able to walk again after this traditional therapy (P05_F_M1_260718).

However, it was clear in this participant's *karaki* that since her first delivery, she developed a constant back pain for which she persistently saw the doctor, but with no improvement. She believed that the only health practice that could heal her on-and-off back pain was the medicinal young leaves sponge application [*tubatu*] and the application of warm compression by foot [*touaki*]. While in New Zealand, this woman mentioned that she still experienced persistent back pain and missed her mother and her traditional healing skills. At one time, one of her church community senior members saw that she appeared sore when she walked. They told her that she could do the '*tubatu*' and the '*touaki*'. Once she heard that, she was astonished to know that someone could perform this therapy that she had longed to be treated with, and said "*yes, that is exactly what I need*" (P05_F_M1_260718). She said that when she had the '*tubatu*' and '*touaki*', her back pain was relieved instantly. This woman mentioned she was glad

that she could access a Kiribati traditional healer who could perform the types of healing methods to treat her pain that were similar with her mother's traditional healing skills (P05_F_M1_260718).

Participants also talked about the lack of their breastmilk. As mentioned earlier, the mother who was delivered by the traditional birth attendant in Kiribati described that she also had difficulty in getting her breastmilk (P18_F_M1_111018). She explained that while her newborn baby was fed with natural fresh coconut water [*te moimoto*], another traditional healer was called in to massage her breast to produce her breastmilk. She described her experience:

she [the traditional healer] massaged from the root of my breasts to the tips of the nipples (P18_F_M1_111018).

She mentioned that along with her meals at breakfast, lunch and dinner, she had to drink a big cup [about 500mls] of the *karewe*; the sweet juice from the coconut sap known as toddy, which is rich in vitamins, eat freshly grated coconut [*mamin te ben*], and had her breasts massaged regularly (P18_F_M1_111018). She added:

my breasts were so huge and swelled up and full of milk following this Kiribati local medicine (P18_F_M1_111018).

Maintaining the health and wellness of a child using a variety of the Kiribati traditional health practices also emerged from participants' *karaki*. Most mothers expressed a common traditional health concept that infants must remain in the house as they are too young to face the outside environment. The mother of four children who started her family in New Zealand explained that:

Young babies must not be taken out of the house, and so when I was very desperate to get something that I really needed, I left my baby with my mother, and I would just go and quickly come back and I had to take my phone with me, just in case my baby cried... (P30_F_M1_131018).

Similarly, the mother who had her first-born child in Kiribati shared the same concept, she said:

Yes, in Kiribati you don't go out with your little one, like you don't travel by bus, ... you can attend a function, but you don't need to stay long (P17_F_M1_111018).

This mother further added that she restricted attending social functions and going out to public places with her newborn baby, particularly from the age of zero to six months because she was cautious of the dusty environment and the illnesses that her child might contract (P17_F_M1_111018). However, while she restricted taking her little baby to social functions, she also thought that her baby needed some form of interaction with the people around, and therefore she had to balance these to ensure her baby's wellness (P17_F_M1_111018). She further emphasised that balancing these health practices, including boiling all her baby's feeding utensils were her main ways of keeping her babies well and healthy (P17_F_M1_111018).

The participant who had a newborn baby at the time of the interview, emphasised that to ensure the wellness of the newborn, she boiled all the newborn's feeding utensils in a separate pot. She also washed the newborn's baby clothes separately from the older children's clothes, so her newborn did not contract any illnesses (P30_F_M1_151018).

As discussed previously, the 36-year-old mother who had a normal birth after she had the massage by the traditional healer, also communicated in her *karaki* the way in which she bathed her children to keep them well (P21_F_M1_131018). She described:

When you bathe a child, never stand the child inside a tub or pool of water. You must first wet the child's hands, face, body, and then later stand them in the tub or pool of water (P21_F_M1_131018).

This participant stated that her mother taught her this practice, describing her belief that *kabuebuen te nano could come in the body through the feet* (P21_F_M1_131018). She further emphasised that she made sure that she kept to this practice, and she noticed that her children never suffered from *kabuebuen te nano* (P21_F_M1_131018).

The family had an important role in supporting mothers gain their physical and psychological health after birth. The mother with three older children and a newborn baby attributed the low rates of postnatal depression among I-Kiribati women to this support (P30_F_M1_151018). She also believed that family support also contributed to preventing a 'cot-death'. She explained:

In our culture [Kiribati] it is very important that a nursing mother has someone to support her with her housework for her family during the healing process after birth. We see that I-Kiribati nursing mothers do not suffer from postnatal stress or depression, because their [the mother's] time was focused on the health of their newborn baby as well as having adequate rest and sleep (P30_F_M1_151018).

All the above mentioned *koran* are part and parcel of the ways in which I-Kiribati engage with their cultural values, heritage, and traditional practices to maintain their health and wellness both in the Kiribati and New Zealand contexts. The next section will describe the third main *binoka*, *that of* healthy food and its production.

4.5 HEALTHY FOOD AND ITS PRODUCTION

Food and its production play an important part in many of the participants' descriptions of health. Foods are essential and influential primarily for a human body's survival and well-being, but at the same time the human body can be traumatised by the food being consumed. The choices of food and its preparation underpins ethnic cultural beliefs and values, and often shape that ethnic group's existence, and at the same time it reflects health and wellbeing. Western food is defined as food that originates in Europe or from other western countries. Traditional Kiribati food in this context is mainly sea food, crops and fruit which is grown in Kiribati. The participants of this current study revealed a variety of their worldviews and practices pertaining to food and its production.

Most participants claimed that western foods were not healthy, one participant said:

Our Kiribati local food such as fish, bwabwai, coconut, breadfruit are healthy food, because the fish is always fresh, while imported western foods make us sick, for example, rice, meat,...(P02_F_M1)290618).

One participant, a woman in her early fifties believed that:

Health comes from the hard work you put into your land to produce food for your family' (P10_F_M1_310818).

She told her *karaki* that as coming from a large family, her parents worked hard on their lands to cultivate food crops such as giant taro [*bwabwai*], breadfruit and pandanus, cut toddy, and as well they went out fishing regularly to make sure that there was enough food available for the family daily. This participant further added that her father was also keen to preserve food in the form of dried fish and other sea food, dried pandanus pastes and the boiled toddy syrups [*kamaimai*] to consume in times of stormy weather when her father could not go out fishing or harvest crops (P10_F_M1_310818). The woman further explained

... our local foods are the healthiest food because they are not greasy (P10_F_M1_310818).

Another woman in her twenties said that her grandparents' main food was the Kiribati local dishes of fish and coconuts. She stated:

My grandparents had good sets of teeth, had no tooth decay and were able to see properly with good vision, and this was because their main diet was Kiribati local food (P15_F_M1_230918).

Most participants believed that local foods that were boiled or cooked plainly on an open fire which participants referred to as the 'tintin', were healthy cooking styles because there was no need for oil to be included in this type of cooking. Foods that could be plainly boiled including breadfruit, '*bwabwai*', or pandanus, were the best dishes to keep them well and healthy.

Another woman aged 49 years old, who has both Kiribati and Tuvalu lineage, defined 'healthy foods' as local fish, coconut, and taro leaves that were cooked in a healthy style (P19_F_M1_121018). She explained:

My mother used to cook fish that she rolled in coconut leaves and placed on heated rocks until they were cooked. She was also very good at making raw fish with coconut milk. At times she cooked fish in the underground [umum], made 'te pooi'; coconut flesh mixed with coconut water and placed in a bucket or a big container [kumete] with a lid which was then placed in the fridge [te pooi was eaten as a snack, but very filling]. (P19_F_M1_121018).

She considered that unhealthy cooking styles were fried food in unhealthy oil (P19_F_M1_121018).

However, another participant in her early fifties said that after being exposed to a western diet, she changed her perception and believed that the Kiribati traditional food is healthy. She was then keen to include Kiribati local foods such as fish, coconut, *bwabwai* [giant taro], local toddy juice, green leaves/salads and no sugary drinks. She mentioned that she adopted this 'healthy diet' concept after attending a course on nutrition and gardening in Kiribati where they were taught the values of the local food (P10_F_M1_310818). She further explained:

I really wanted them [my family] to eat vegetables, because there were hardly any vegetables available in Kiribati, when I first came to Kiribati, ...like in Fiji, you can buy these from the market, ... so I had to grow my own vegetables, but just before my vegetables were ready, I used the non [morinda citrifolia] leaves as green salads (P10_F_M1_310818).

This woman also emphasised:

Just about everywhere I live, I am always keen to make a vegetable garden, to grow my own greens and vegetables (P10_F_M1_310818).

She also described her family as being generally well, and none of her immediate family members have ever been unwell or admitted to hospital for acute infection or illnesses, including herself. This participant demonstrated a concept of self-sufficiency that reflected and supported her health and well-being of her family.

Strict food choices were also another concept that emerged from participants' *karaki* particularly to maintain health and to manage illnesses. The same participant who was self-sufficient and keen to grow her own vegetables, explained that in Kiribati, she did not allow her children to have sweet candies and she asked her babysitter [a senior I-Kiribati woman] to make sure that she mixed the young non [*morinda citrifolia*] leaves with her baby's mashed food in place of green salads, (P10_F_M1_310818). She emphasised:

I applied all that I learned, so I started a garden. I grew pawpaw, beans, pumpkins, and when I cooked my son's food, I mixed these with rice, beans and pumpkins, and no sugar, ...[laugh] I thought I was so strict,.. and my mother said, 'has his drink no sweetener at all?' and I replied, 'water is very good' (P10_F_M1_310818).

She added:

and it was true, my son was very healthy ... you know, none of his baby teeth were decayed (P10_F_M1_310818).

Similarly, as mentioned earlier, the mother with a two-year-old asthmatic son, mentioned that while her two-year-old son stayed with her parents-in-law in the outer island, he was generally well, was eating well and had never suffered from asthma (P11_F_M1_060918). This participant explained that her parents-in-law regularly prepared the traditional oil remedy for her son to cleanse his system and maintain his health and wellness as well as making sure that her son regularly had the young leaves of the *morinda citrifolia* [*taberan te non*] in his meals, and the juice of the pandanus roots remedy [*te mamma ni waka ni kaina*]. She described:

All the grandchildren who stayed with our parents-in-law were treated with an oil based local remedy [a kakamoaki n te bwa] and also the juice from the roots of the pandanus.... [te mamma ni waka ni kaina], and regularly had the young leaves of the morinda citrifolia (taberan te non) in their meals (P11_F_M1_060918).

Participants also emphasised their concerns about what family members should eat and how their food should be prepared to ensure that

all family members were in a state of health and wellness. Two of the participants were diagnosed with gall stones and had been admitted to the hospital and were wait listed for gall stones removal. Both of them emphasised their concerns about the diet of their children and grandchildren. The first participant (P02_F_M1_290618), described that while she tried to eat well, and to eat more fruit, vegetables, green leaves and less meat, she also made sure that her children and grandchildren eat a balance diet, that is lots of green vegetables and less sugary and starchy foods. She did not want her children and grandchildren to go through what she had gone through in the hospital, for example having a lot of blood tests, scans and a number of hospital admissions to find out what was wrong and why she was in severe abdominal pain. But most importantly, she did not want her children and grandchildren to go through the fear she had when being admitted to hospital. She made sure that her children and grandchildren eat a balanced diet and avoid fatty foods to stay healthy. She gave orders to her children:

You need to be careful about what you eat, because I don't want you to go through what I had. It is important that we all eat a balanced diet with green leaves... (P02_F_M1_290618).

The second participant mentioned that having been exposed to western food in the hospital, she realised that while she and her family were not used to western foods, she felt the need to accustom herself to eating the western balanced diet like she had during her stay in the hospital to keep her well. She described:

...my children, they don't like eating green salads and fruit, and so, having the experience of eating a balanced diet in the hospital, first I need to get used to eating these types of foods, ...and then I can encourage my children to eat green salads so they don't get sick (P15_F_M1_230918).

Following her hospital experience, this participant adapted herself to eating freshly made foods that were balanced with green salads, making sure that she ate less meat, less carbohydrate and lots of green vegetables.

This same participant also highlighted a different concept regarding eating leftover food. She described:

One of our behaviours was that, back home [Kiribati] was that we don't like to waste left-over food, you know, we eat them up, we warmed them up and ate them. We tend to say 'don't throw the left-over food away, even if we warm them up or not... I found that this was not healthy, this made me unwell (P15_F_M1_230918).

However, on the one hand, while this woman felt sorry about the left-over food and felt she was doing the right thing by not wasting food, she regretted the negative impact on her health. She further explained:

... and then I thought to myself, 'this is why I get abdominal pain and ended up with gall stones because I always eat the leftover food (P15_F_M1_230918).

This participant has adjusted to the habit of throwing away the left-over food, eating freshly cooked food, and trained her children and grandchildren to adjust themselves to these new eating habits (P15_F_M1_230918). This participant claimed that healthy foods were those that were grilled, steamed or boiled, and maintained that fish and coconut were the best healthy foods.

Maintaining a strict diet to manage specific illnesses was also an important factor in participants' *karaki*. The participant (P10_F_M1_310818) mentioned in her *karaki* that while her father suffered from three stroke attacks, she believed that he recovered well following these three strong attacks because he ate local Kiribati foods, e.g. bwabwai [giant taro], coconut, fish, that was either boiled or cooked over an open fire [*tintin*], coconuts, and drank fresh toddy. The participant added that her father was regularly massaged by a traditional healer, ate traditional food and drinks, and that these health practices made him recover well from his three episodes of stroke (P10_F_M1_310818).

Participants also believed that freshly cooked healthy foods must be available for the family at all times to maintain the health of the family. A 79-year-old said that her parents made sure that there was fresh food ready

for the kids all the time e.g. fresh fish, rice, breadfruit and *bwabwai* [giant taro] (P09_F_M1_300918). She also said that her four children were generally well and that was because she believed she cooked fresh food all the time in a healthy cooking style: e.g. boiling of fish, chicken, meat and lots of green leaves added to the cooking or boiled separately; raw fish with coconut cream. (P09_F_M1_300918).

4.6 BEAUTY AND WELLNESS BELIEFS AND PRACTICES

Most participants made a clear link between wellness and beauty. They frequently referred to the word '*kamarurung*' which refers to wellness health practices. However, participants had their own perspectives on how these *kamarurung* could promote their wellness and beauty. One of the most important *kamarurung* practices shared by many participants was the 'early morning shower' or *te kauti* with an early morning stream of fresh, clean water from the well.

4.6.1 TE KAUTI N TEBOTEBO; EARLY MORNING SHOWER

A participant, a widow in her fifties emphasised the relationship between an early morning shower with the early morning fetching of water from the well (*te kauti n tebotebo*), and wellness (P05_F_M1_260718). She described that *te kauti n tebotebo* was one of the traditional practices that has been carried out within her older family members to keep them well and healthy. She explained how *te kauti n tebotebo* was done in Kiribati:

... you have to wake up early in the morning to be the first person to fetch water from the well (te moan ran), and wash your body with (tebotebo n te karangaina)...this practice will make you healthy (marurung) as well as attractive (eke)
(P05_F_M1_260718).

This participant recalled that sometimes she would be asked by senior members of her family to fetch well water in a bucket by midnight, keep it covered for her senior family members to wash themselves with the next morning (P05_F_M1_260718). She still believes and values this practice in New Zealand, in that an early morning shower *te kauti n tebotebo* would

make her fresh and well. It was interesting that this participant, while she has migrated to a westernised country with a different water system in place, still practices the ways in which she used the *kauti n tebotebo* here in New Zealand, but she has adjusted the practice to the New Zealand environment. For example, she still wakes up early in the morning, but now uses the shower instead of fetching her bath from the well.

In contrast, a 49-year-old male added some aspects of *tabu* values to *te kauti n tebotebo* belief to maintain his wellness (P06_M_M1_090818). While this 49-year-old male also believed in the value of engaging with the *kauti n tebotebo*, he believed that he must fetch the tap water using a clean bucket that has not been used for laundry purposes (P06_M_M1_090818). He explained,

*... and so I didn't fetch water for a shower in a laundry bucket,
... because of my wellness, and this was because I believed that
if you shower from the laundry bucket that has been used to wash
underpants and other things... you are breaking the 'tabu',...and
therefore, you would not feel comfortable,... you would not feel
well [marurung], and so that was why I used the clean bucket that
was not a laundry bucket to fetch water for my bath (tebotebo)
(P06_M_M1_090818).*

4.6.2 CLEANLINESS

Cleanliness also emerged as a *koran* under the main *binoka* of beauty and wellness beliefs and practices. A male participant who practiced the *kauti n tebotebo* since he was a teenager living on a rural island, also believed that a bucket or a basin, used for the *kauti n tebotebo* must be clean and had not been used for laundry purposes. Equipment that is used for laundry are considered 'dirty' and therefore are perceived to be ineffective to use for the *kauti n tebotebo*. *Te kauti n tebotebo* is the Kiribati concept that enhances beauty, makes the person feel fresh and well (P06_M_M1_090818). He further explained:

*You have to make sure that the bucket is not used for other
purposes, It must be clean, ...as te kauti n tebotebo involves*

rituals and therefore the bucket becomes tapu
(P06_M_M1_090818).

This participant also added that part of *te kauti n tebotebo* rituals was to add special medicinal fresh, green, young leaves (*taberanikai*), these add value to '*te kauti n tebotebo*' practice (P06_M_M1_090818). The *taberanikai* that were secretly picked from the bush in early morning hours were pounded, and were spread in the water inside the bucket. He stated that the rules around picking these young leaves was that nobody should see him when he picked these young leaves. He stated:

... in the early hours of the day around 5am I then went to pick specific leaves, the 'taberanikai' that my father had told me secretly, ... you know, I must not meet anyone on my way to pick these special young leaves, if I did, then I had to go back and would have to find another time to pick these leaves
(P06_M_M1_090818).

He further added that the juice extracted from the young leaves were used for oral consumption which he would take in the afternoon, and then the squashed pounded dry leaves were then thrown into the bucket of water, mixed with a bit of coconut oil and the bucket was then kept undisturbed, covered and left until dawn the next day. When dawn came the next day around 5am, he then washed his body (*tebotebo*) with the water in the bucket with the leaves. He believed that this practice made him very energetic, healthy, and popular (*eke*) (P06_M_M1_090818). He also stated that part of this *te kauti n tebotebo* was to swim in the ocean when there was a good swell which had to flow over his upper abdomen (*manawa*) to uplift his spirit, strengthen his health and wellness and enhance his attractiveness (P06_M_M1_090818). After swimming in the sea, he would rinse himself with the water that had been prepared. This 49-year-old male accentuated the effects of these cultural beliefs and practices:

To me, I felt my health and spirit were most uplifted, and my state of health was increased (e raka marurungiu). I truly believe in it, you see, now that I am almost fifty years old, and I still feel

healthy, given that I have diabetes, but I am still active (P06_M_M1_090818).

This same male also explained that he was hardly ever sick in his life. *I did not contract any illnesses. This was because I maintained the 'kauti n tebotebo' practice... that my father had taught me. My father said that 'if you maintain those things you will not contract any illnesses (P06_M_M1_090818).*

4.6.3 TE MOOI TABERANIKAI

Participants also said that they used the '*mooi taberani kai*' as one of their common wellness [*kamarurung*] health practices in Kiribati. *Mooi* is the Kiribati word for drink or it can also be used as a verb 'to drink'. '*Taberani kai*' is the collection of selected young green leaves. The '*mooi taberani kai*' refers to the oral remedy made up of pounded young green leaves in a piece of cloth. Then the juice is squeezed out into a cup of 10-30mls of water. This remedy is to be taken orally. Participants had their own unique recipes for *te taberani kai*, however they all shared one common perception, and that was to bring beauty, *eke* or to be well-known, well-liked by people, and as well as to maintain health and wellness.

A woman in her fifties recalled the days of her youth in one of the rural islands, when her mother used to make her the '*taberani kai*' oral remedy in the belief that this remedy would not only make her daughter healthy and industrious [completing the chores well], but it would also remove any armpit smells [*te bumaniman*] and replace *te bumaniman* with the fragrant smell of the green leaves (P24_F_M1_131018).

4.7 THE USE OF WESTERN HEALTH PRACTICES

Participants explained their views and experiences on the use of the western health approach both in Kiribati and in New Zealand. The woman who had episodes of abdominal pain that were well managed by the '*riring*' in Kiribati described that she could not access a traditional healer in New Zealand to manage her abdominal pain (P15_F_M1_2309180). She mentioned that when her abdominal pain was worsening and associated

with nausea and vomiting, she had no choice but to see her general practitioner (P15_F_M1_2309180). She explained:

... the pain was located in my upper abdomen [manawau], and it [the pain] caused nausea. I felt like I wanted to vomit, it was a kind of funny feeling. I felt cold as if I was going to faint. I thought I was going to faint and that was why I said that I needed to go to the hospital (P15_F_M1_230918).

This participant admitted she waited until her condition got worse with severe abdominal pain, the fainting attack prompted her to see the doctor. She also stated that while she was in hospital, she felt she was well informed of the surgical procedure by the nurses and doctors and was satisfied with the care she received at the hospital. She stated:

The nurses were so kind, they explained well to me exactly what they were going to do, and I felt safe and reassured (P15_F_M1_230918).

She also emphasised that not only was she satisfied with the care that was provided by nurses and doctors, but she also learned how to maintain her health by eating well. She explained:

Even if we are not used to this kind of western food, as we always eat rice and hardly eat any green vegetables and salads, it's about time we need to adjust to this kind of lifestyle. And from that time, I have tried to introduce this type of western lifestyle to my children (P15_F_M1_230918).

Undergoing diagnostic tests and receiving the test results were detrimental to some participants. As mentioned earlier, the 49-year-old woman with a diagnosis of gall stones, described how she underwent a physical examination and several blood tests first with her general practitioner (GP), and later in the hospital when she was admitted to the hospital for severe abdominal pain. When she first saw her GP, to find out why she had the abdominal pain, nausea and vomiting (P02_F_M1_290618). She explained:

The doctor explained that my liver was enlarged, but they were not sure what made it enlarged, and informed me that I had to do

more tests like an abdominal scan, and later a computerised tomography scan (P02_F_M1_290618).

While this woman was quite anxious about her results, she stated that her level of anxiety decreased when the doctor clearly explained to her that she had gall stones and that she would be put on a waiting list for their removal.

While this patient was in hospital, she described that there were several other tests that she had to do which made her feel overwhelmed. One of her blood tests came back, she explained:

...and they told me I had diabetes, I was told it was a high reading, so they began with controlling my diabetes first, I was so distressed,...(P02_F_M1_290618).

She was overwhelmed and anxious when she was told she had diabetes because this was not picked up by her GP, and as she told her story, her story line increased.

This participant also emphasised that she was lucky this abdominal pain occurred here in New Zealand as she could imagine how difficult it would be for her to find out her diagnosis if she was in Kiribati with limited health technology and resources (P02_F_M1_290618). This woman was also appreciative of the fact that her abdominal pain was well controlled by the injections (P02_F_M1_290618).

Taking oral western medicine was not common in most participants when it came to treating pain. A woman in her late sixties explained:

We [myself and my siblings] don't know how to take Panadol tablets, and my children too don't know how to swallow tablets, because we are not used to it. We only use our own traditional family medicine. We don't take western medicine (P13_F_M1_220918).

While this woman and her children did not take Panadol to treat any type of pain, for example headaches, she believed that they were generally well because of regularly taking their family traditional remedies to prevent them from getting what they believed were the symptoms of '*kabuebuen te nano*' (P13_F_M1_220918).

Similarly, another woman was who used the *riring* as her first line of treatment for headache also mentioned that:

We don't generally take Panadol when we get sick for example, like headache (P05_F_M1_260718).

One participant, a wife and a mother of two children was adamant that Panadol was the last treatment option she would consider treating herself or one of her family members for pain or fever as she was concerned that taking tablets like Panadol might have side effects. She explained:

...taking tablets is the last treatment option... I am fearful of taking tablets... I know it can stop the pain and fever, but then I don't know if the tablets can destroy other parts of the body (P21_F_M1_131018).

In contrast, one participant mentioned that in New Zealand, she turned to Panadol tablets when she suffered from headaches, and this was because Panadol was the only tablet she ever knew when she was in Kiribati that could treat a headache (P16_F_M1_111018). Participants have different preferences to treat their ailments such as headaches, however, their choices depend on the level of knowledge they have for the medication and the experiences they had encountered in the past regarding the use of medication.

Western medicine seemed unhygienic to at least one participant, a mother who described delivering asthma treatment via a nebulizer as exposing her six months old daughter to unclean equipment. She explained:

... and I did not like it [the mask and was put on her daughter], because you know, I have seen very unwell patients using the mask...(P07_F_090818).

This woman further described her concern that while the nurses were trying to help to alleviate her daughter's trouble breathing, she was not convinced until the nurse explained to her that the equipment was clean and had been all sanitized (P07_F_090818). This mother was further relieved when the nurse described what she was going to do with the nebulizer:

...and I was told by the nurse, that she was going to make her[daughter] smoke the medicine [kamokoaki]so that she could breathe normally (P07_F_M1_090818).

On a contrary note, one participant, a mother with a large family, explained that one of her daughters had to be on a long-term treatment regime (P14_F_M1_220918). This woman recalled one time when her daughter suddenly felt unwell and she had to take her to see a doctor in one of the accident and medical clinics. This participant assumed that her daughter was not complying with her treatment and that was why her symptoms flared up and she became really unwell (P14_F_M1_220918). But at the same time, she was adamant that the medication that was given to her daughter made her sick. She explained:

She [daughter] has been loaded with lots of tablets, which I think make her more sick (P14_F_M1_220918).

On another occasion, this participant also described that another daughter suffered from episodes of seizures [*katikitiki*] as a child. One time when her daughter got back from school, she had a fit when she had a shower. This participant explained:

She is lucky, we called the ambulance, and she was taken for further assessments, and now her fits have never come back again,... she completed her medication, but she continues to attend her monthly appointments,... and you know when we accompanied her to her appointment, there were leads that were connected to her brain,... not sure what those are... (P14_F_M1_220918).

4.8 SUMMARY OF FINDINGS

There were six main *binoka* that emerged from the participants' *karaki* that embraced various fundamental health beliefs, and health practices that I-Kiribati used to manage their health and illness in New Zealand. Under these six *binoka* were various *koran* that together comprise these main *binoka*. These included 1) Health and illness perception and listed under these were perceptions of a clean environment and personal hygiene;

illness caused by breaking ancestral *tabu*; 2) The value of traditional practices; and listed under this were ancestral or spiritual engagement and obedience, respecting and obeying elders' words of wisdom, strong family ties, extended family collective roles, and support systems; 3) Kiribati traditional health practices, and listed under this *binoka* were traditional gifting of inherited health knowledge and skills, traditional pain relief, *kotokoto*, *anai maraki*, *te riring*, self-diagnosing, illnesses, traditional remedies and substitution of Kiribati medicinal ingredients, seeking traditional health practices after western health practice failed, combining other Pacific traditional practices, combining traditional and western health practices – pregnancy, birth and after birth; 4) Healthy foods and its production; 5) Beauty and wellness beliefs and practices and listed under this were, *te kauti n tebotebo*, cleanliness, and *te mooi taberanikai*; 6) The use of western health practices.

Table identifying *te koran*, main *binoka* and the health practices of I-Kiribati in New Zealand.

<i>Koran</i> (Individual coconut fibres) forming the <i>binoka</i>	<i>Binoka</i> (Main Themes)	Participants navigating between four different health practices:
<ul style="list-style-type: none"> • Perceptions of clean environment and personal hygiene • Illness caused by breaking ancestral <i>tapu</i>. • Ancestral or spiritual engagement and obedience • Respecting and obeying elders' words of wisdom • Strong family ties, extended family collective roles, and support systems • Healthy food and its production • <i>Te kauti n tebotebo</i> • Cleanliness • <i>Te mooi taberanikai</i> • The use of Western health practices 	<ol style="list-style-type: none"> 1. Health-Illness perceptions 2. The value of traditional practices 3. Kiribati traditional health practices 4. Healthy food and its productions 5. Beauty and wellness beliefs and practices 6. The use of western medicine. 	<ol style="list-style-type: none"> 1. The Kiribati traditional health practices 2. Western health practices 3. 'Other' Pacific health practices 4. Māori health practices

There are two key concepts used to explain the health beliefs and practices of I-Kiribati immigrants in New Zealand. First the list of *koran* that emerged from the findings embracing various fundamental health beliefs and health practices that I-Kiribati use to manage their health and illness in New Zealand. These are important in constructing a definition of *te mauri* perceived by I-Kiribati in New Zealand. Secondly, the emergence of the six main *binoka* and the health-seeking behaviours and health navigation patterns essential to construct a specific health model for I-Kiribati immigrants in New Zealand. The commonalities identified by the participants provide in-depth information about the way I-Kiribati perceive and practice health in Aotearoa New Zealand. From the information, I propose a model of health that I suggest encapsulates the important cornerstones of I-Kiribati health beliefs and practices in their host country. It preserves many forms of knowledge from Kiribati but integrates the western context. This model is called *Te Kuan Model of Te Mauri* and is the subject of the final chapter.

CHAPTER FIVE: DISCUSSION - *TE KUAN MODEL OF TE MAURI*

‘...I bargain, I negotiate, I integrate, I reconstruct, I interweave fashionably, the amazement of the multi-cultural society, the advanced health systems, the incredible, te mauri, the western, te mauri ora, the ‘other’ Pacific...’
(Poem (Kario) by Schutz, T.C. 2022).

5.1 INTRODUCTION

This study explored the health beliefs and practices of I-Kiribati immigrants in New Zealand. The aim of the study was to understand how I-Kiribati immigrants practise health in their host country of New Zealand: determining how they navigated between their traditional health practices and the western health system, if and how they integrated their traditional

health practices, identifying factors that influenced their decision-making in New Zealand, and ultimately, from this information, I aimed to develop a preliminary model of health for this population. This is a crucial subject because of the fast-growing population of I-Kiribati immigrants, but most importantly, the prospect of total migration due to the impact of climate change affecting the Kiribati Islands making these islands uninhabitable in the foreseeable future.

The study also provides important documentation of I-Kiribati immigrants' culture, health perceptions and practices, and starts to fill this gap as it shines a light on the cultural beliefs of this particular Pacific Island group in relation to their health beliefs and practices. It will also contribute to the body of knowledge and provide better understanding of how Pacific peoples more generally practice health in New Zealand. This, in turn, ultimately should provide a vision of what services may be needed to ensure optimal health for this group of Pacific immigrants and may also provide answers to the persistent poor health outcomes of Pacific peoples in New Zealand. Seeing each population as different with different traditional health beliefs and practices allows a first step towards better health outcomes.

This chapter starts with a reflection on the analysis and the interpretation of the quoted *karaki* using *te kora* research framework to determine the definition of *te mauri*. A definition of *te mauri* emerged from the participants' *karaki*. This definition is important because it shapes participants' worldviews on what it means to be well and healthy and informs their decision making about their health practices in New Zealand.

Secondly, there is a further in-depth discussion to illumine *Te Kuan Model of Te Mauri*, a model that I developed from this study that captured the ways in which I-Kiribati perceive *te mauri*, and how they navigate between health practices. I see this discussion as a final twisting of the *binoka* which emerged from the findings and the emergence of *te kuan* (the net) made from *te kora* to understand what is health to I-Kiribati, and how they navigate health systems to manage their health in New Zealand. I refer to the model I have developed in order to provide a conclusion to this thesis

as *Te Kuan Model of Te Mauri*. I will therefore conclude this thesis with a reflection on how the information obtained in this study suggests a model of health suitable for the I-Kiribati based in New Zealand.

5.2. DEFINITION OF *TE MAURI*.

Mauri is a Kiribati word that has two meanings: firstly, it means *hello* and is the common word used to greet one of a group of people. When a person is greeted with *mauri*, this means that the person greeting that individual is also conveying a message of *saluting health* or *being in good health* (Trussel & Groves, 1978). Secondly, *mauri* can also be used as a noun describing a person's *good or sound health* (Trussel & Groves, 1978) or having a quality of decent health and wellbeing. It is also the term that can be used to describe the state of an individual's or family's good fortune.

When the article *te* ("the") is put in front of *mauri*, the two words together (*te mauri*) translates to 'health' and becomes a more powerful cultural blessing than *mauri*. *Te mauri* is a Kiribati concept that provides in-depth connection to the Kiribati culture that reflects the individual's health and wellbeing. As an indigenous I-Kiribati nurse migrant to New Zealand, I view *te mauri* as a powerful fundamental concept that underpins the health perceptions and health practices that encompasses concepts of the cultural, mental, physical, social, spiritual, and environmental needs of the I-Kiribati in New Zealand. While there is a dearth of literature to support the relationship of the concepts of *te mauri* and how these concepts might have enhanced I-Kiribati health and wellbeing, it should be pointed out that based on the Kiribati empirical knowledge of traditional health practices that have been used in the past from generation to generation as epistemological knowledge, these have been observed and proven to influence and improve I-Kiribati individuals' health and wellbeing (Schütz et al., 2019).

In this sense, *te mauri*, is a symbolic and meaningful gesture of bestowing upon another person a traditional Kiribati blessing for health. This study showed that participants conceptualised health and illness primarily on the Kiribati cultural concepts of *te mauri*. Participants perceived *te mauri* as more than just 'good health'. *Te mauri* encompasses a

comprehensive and holistic health-belief system that incorporates elements of cultural, mental, physical, social, spiritual, and environmental aspects of health. This holistic health-belief system was echoed by studies of indigenous people in their native and host countries. These studies reported that indigenous cultural beliefs and practices were reported to be integral components of health and wellbeing and shape the indigenous peoples' existence (Ahuriri-Driscoll et al., 2008; Koczberski & Curry, 1999; Macfarlane & Alpers, 2009; Macpherson & Macpherson, 1990; Mark et al., 2017; McMullin, 2005; Prior et al., 2000; Riki Tuakiritetangata & Ibarra-Lemay, 2021).

The definition of *te mauri* that emerged is categorised into six main concepts: 1) cultural concepts of *te mauri*; 2) mental concepts; 3) physical concepts; 4) spiritual concepts; 5) social concepts; 6) environmental concepts. These concepts are interwoven to establish a balance of I-Kiribati health and wellbeing and boost their state of *te mauri*. These will be described in the next paragraphs.

5.2.1 CULTURAL CONCEPTS OF *TE MAURI*

A range of cultural concepts was depicted in this current study, including complying with ancestral *tabu* practices, respecting elders' words of wisdom, and practicing cultural rituals. Most participants consistently connected to their cultural ancestral *tabu* practices. A female participant spoke about how her father was engaged with his ancestors and the *tabu* practices that consequently resulted in *te mauri*. The ancestors visited her father in a dream and instructed him that if he really wanted his wife to conceive, he should follow their instruction, which was to lie on his wife's right side. The participant's father followed his ancestors' advice which then resulted in his wife having a safe pregnancy and safe delivery. This belief was consistent with indigenous studies exploring traditional health beliefs and practices, for example the Māori health beliefs which encompassed *tapu* traditions of respecting their land and plants and as well as connecting to their *wairua* or spirits to maintain their health and wellbeing (Mark et al., 2017), indigenous people of Papua New Guinea (Macfarlane, 2009), Hawaiian natives (Hilgenkamp & Pescaia, 2003), and the indigenous

Hawaiians perception of holistic health encapsulating the physical, spiritual and cultural identity as Hawaiians, acknowledging their land, their ancestors, and their cultural lifestyles (McMullin, 2005). Traditional Chinese Medicine encompasses a philosophy of health where they incorporate cultural values of *tao* (nature) and *qi* (energy) to establish a balance of health and wellbeing between nature and energy sources, allowing the body to maintain its physiological functions (Cohen, 2010).

5.2.2 MENTAL HEALTH CONCEPTS OF *TE MAURI*

This study showed that the cultural concepts of *te mauri* strongly influenced the participants' mental health. One of the cultural practices was the power of *te mauri* being declared and bestowed upon an I-Kiribati by an elder or a senior member of a family or a community. Bestowing the word *te mauri*, is treated as traditional words of wisdom that must be earned and treasured. Those receiving the words of wisdom are privileged with the prospect of living in harmony, peace, and security, and that they would always be free from illnesses, mysteries causing injuries or misfortunes, or any harmful supernatural powers.

In relation to this cultural practice, *te mauri* is one of the three Kiribati ancient expressions of blessings which are customarily spoken by the eldest or senior male I-Kiribati (*unimwane*) during a function or *te botaki* to conclude his formal speech. These Kiribati ancient blessings are expressed accordingly in this order: *te mauri, te raoi ao te tabomoa*; which translates as 'health, peace, and prosperity'. There are two reasons for these blessings, firstly the I-Kiribati speaker connects with the Kiribati ancestral spirits to acknowledge the guests and to intercede with the ancestors to bestow upon the guests the Kiribati blessings of *te mauri, te raoi ao te tabomoa*. This is an important cultural ritual to the guests, to be ritually introduced to the ancestors of the land, receive the ancestral protection from all kinds of harmful incidences, near misses or actual injuries that may be caused by supernatural powers or other physical, mental or social causes of illness. Secondly, the guests are always in good health, and embrace a peaceful life with the people, the land and the resources surrounding them. The study findings evidenced that participants comply with their ancestral

tabu practices to earn their ancestral protection, and that they ensure freedom from any mental or physical illnesses.

On the contrary, women expressed their fear that if they did not comply with their ancestor's *tabu* practices, they would be regarded as disrespecting their ancestors' traditional practices, and therefore this would consequently result in misfortune such as miscarriages or contracting or having irrecoverable illnesses. A similar health-illness belief was echoed by indigenous Māori (Ahuriri-Driscoll et al., 2008; Ahuriri-Driscoll & Boulton, 2019; Mark et al., 2017), Tongans (Finau et al., 2004; Ihara & Vakalahi, 2011; Vaka et al., 2009), Samoans (Macpherson & Macpherson, 1990), and Papua New Guineans (Macfarlane, 2008).

Some participants evinced practical evidence for these cultural rituals. One participant explained she felt goosebumps upon her skin and felt the presence of evil spirits that she thought caused the abdominal pain suffered by the woman on whom she was performing *te riring*, because the woman had not complied with ritual protocols. While this belief could be perceived as 'superstitious' belief to others, it is important to acknowledge that this I-Kiribati belief is one of the important elements of *te mauri*.

Understanding ritual practices related to health and wellbeing for an I-Kiribati is critical, firstly for I-Kiribati having their cultural rituals, identity and health-worldviews acknowledged and considered, and secondly for health professionals to provide a space for *maroro* with the unwell person and the person's *kaainga*, and to come into agreement to plan for the most appropriate and culturally safe interventions. These current study findings were consistent with other indigenous studies, for example, the cultural rituals surrounding newborn in Zambia (Buser et al., 2020), the repercussion on a child's poor development due to not complying with the cultural rituals by indigenous people of Papua New Guinea (Koczberski & Curry, 1999).

Another cultural practice that strongly influences I-Kiribati health and wellbeing was respecting the elders. Respecting in this sense is reflected in obedience. Most participants perceived that *te mauri* must be earned, not only by receiving the traditional words of wisdom by elders, but through

obeying and respecting the elders. One participant regretted that despite her parents persuading her not to go on the boat to the outer island with her aunty, she believed that her disobedience consequently resulted in her being unwell. Complying with the cultural expectations influences an array of beliefs and thoughts that allow the participants' minds to be free of anything that might cause physical or mental illness, injuries, misfortunes, or death.

While most of the participants valued and respected their elders and senior members of their communities and believed that they were blessed to earn the power of *te mauri*, two of the participants who were in their teens at the time, did not comply with the Kiribati ritual customs of engagement and marriage and got pregnant during their teens. This study revealed that while this behaviour was perceived by the participants as disobedience to their parents it created a cultural tension of embarrassment (*te mama*), for the participants. There were three important issues that emerged from the *karaki* of the two participants that must be considered when caring for I-Kiribati teenagers. First, the occurrence of unwanted teenage pregnancy, and second the management of cultural tensions should teenage pregnancy occur. Interventions that could be drawn from the study were that revealing teenage pregnancy and reconciling with the parents were the initial steps to establish the state of *te mauri* for both the participants and the parents. These can take time, and therefore, a health professional could start to initiate the *maroro* space taking into account the cultural tensions of ritual engagement and marriage in the Kiribati custom. From the *Samoanisi* perspective, "Healing the talk is a long process which involves long discussions until the whole family is in unity and in harmony" (Tanuvasa Faasalele, 1999, p. 423).

The third issue that emerged from the study was the cultural tension leading to participants being silent about their situation, for example a teenage girl who decided to reveal to her parents that she was eight months pregnant. This showed that *te mauri* can be overlooked and delayed because of cultural tension. Respecting and obeying parents and elders of the family and communities are meaningful driving forces that shape the

ways in which participants conceptualised their health and illness and influence their decision making and health seeking behaviours to ensure that they successfully acquire *te mauri*. However, this was not always the case in the contexts of cultural tension for example being embarrassed because one is not complying with traditional expectations.

5.2.3 PHYSICAL CONCEPTS OF *TE MAURI*

This study affirmed that the physical concepts of *te mauri* are inter-related and interwoven between the cultural, mental, social, spiritual and environmental aspects of health and wellbeing. The study affirmed that cleanliness and personal hygiene were essential elements of *te mauri*. Half of the participants claimed that the practice of bathing in the early hours of the morning with clean first stream flow from the well or tap and what they referred to as *te kauti n tebotebo* was a common practice of the participants in Kiribati. *Te kauti n tebotebo* is a ritual practice to call upon their ancestors to cleanse their body and to be in a state of *te mauri* to maintain their health and wellbeing. This practise acknowledges their traditional practices or “*te katei*, customary practices exclusive to I-Kiribati” (Ministry of Social Development, 2015, p. 8) but at the same time demonstrates respect for their cultural *tabu* rituals to earn *te mauri*. These participants still believed in this practice, however, they were not engaged with the ritual practice as firstly, in New Zealand there was not a well to fetch the first stream of water early in the morning, and the medicinal plants that must be put in the bath are also not available. It is interesting to note that two of the participants practise just the *kauti n tebotebo*, in this context whereby they have an early morning shower to replace the first stream of water to maintain their state of *te mauri*.

This study also affirmed that I-Kiribati have their own ways of physical assessments to detect if there is any illness from within the body. Participants came up with common definitions and terminologies for what it meant to be healthy, and what it means to be *aoraki*. For example, the term *kabuebuen te nano* indicating heat from within the body with characteristics of being *ntaninganinga*. *Ntaninganinga* was perceived by participants as symptoms of illness, and this term was best translated as ‘idle’ or ‘inactive’

instead of the word 'lazy'. Concepts of active self-assessments and self-diagnosing were consistent with Samoan perspectives (Norris, Fa'alau, et al., 2009), and the Tongan's worldview of mental health (Vaka et al., 2009).

5.2.4 ENVIRONMENTAL CONCEPTS OF *TE MAURI*

This study affirmed that participants embraced their land resources in Kiribati to maintain their state of *te mauri*. These resources, ranged from the sea which they used for fish as their main food supply, to using salt water as remedies for cleansing their teeth to avoid tooth decay, sea water as ingredients in the remedies to cleanse their gut; their use of medicinal plants that their ancestors have used from generation to generation to treat their ailments, and the land to grow crops and vegetables, and on which they can build their houses for their *kaainga* to maintain *te mauri*. But as they migrated to New Zealand, I-Kiribati turned to using available resources similar to their home remedies and were creating or re-inventing their new versions of remedies in New Zealand. For example, one participant used lemon juice instead of the juice of *scaevola sericea* fruit (*uaan te mao*). Another participant used the ginger juice for coughs instead of *morinda citrifolia*. These cultural beliefs and practices are also echoed by studies on Rongoa Māori healing embedded in the Māori cultural values and beliefs of “wairuatanga (spirituality), aroha (love), and connections with the whenua (land) and Rongoa (herbal remedies)” (Mark et al., 2017, p. 88). Studies on immigrants (Amzat & Razum, 2014; Barragan et al., 2011; Prior et al., 2000), and studies on indigenous Pacific people (Koczberski & Curry, 1999; Macfarlane, 2009; Macpherson & Macpherson, 1990) also echoed the way in which immigrants and indigenous Pacific people embraced and made use of their environmental resources to maintain their health and manage their illnesses.

5.2.5 SOCIAL CONCEPTS OF *TE MAURI*

The study affirmed that social interactions and community networking are important elements of *te mauri*. This was demonstrated by a wealth of strong family ties, the value of extended family and their collective responsibilities to support each other to maintain *te mauri*. The study

findings suggested that family reunions were important not only to strengthen the bonds between the extended family and enjoy their Kiribati cultural practices such as speaking the Kiribati language, they also passed down their traditional knowledge and practice for making traditional medicines, for example, Kiribati families gathering together to make oral remedies for the children to cleanse their intestines. Social gathering and performing common interests underpinned the way in which health and illness were described, comprehended and interpreted and these were often a product of the culture learned during socialisation (Macpherson & Macpherson, 1990). The authors further supported this study findings by stating “Our definitions of health and illness, the boundaries between the two conditions and markers which indicate that we have moved from one condition to another are provided by culture and learned during socialisation” (Macpherson & Macpherson, 1990, p. 19).

5.2.6 SPIRITUAL CONCEPTS OF *TE MAURI*

This study also illuminated that *te mauri* health-belief system had been extended to embrace the Christian faith. All participants belong to a church, the majority coming from the Roman Catholic Church and the Kiribati Uniting Church; two are Seventh Day Adventist and one from the Church of Jesus Christ of Latter-day Saints. Participants also emphasised that earning *te mauri* was not only practising and complying with their ancestral *tabu* practices but also believing in faith healing. One participant said that her grandfather abandoned his traditional supernatural practices and converted to the Christian faith to gain God’s protection following the death of her aunt at a young age. Another participant changed his lifestyle to quit smoking and bargained with God to heal his daughter. These examples of faith healing are essential elements of *te mauri*. Faith healing was echoed by Niania et al (2013), where a pastor was involved in the care plan for the girl with a mental health condition. This resulted in providing a holistic integrated care that included the western, indigenous, and spiritual health approaches.

5.2.7 SUMMARY OF THE DEFINITION OF *TE MAURI*

In summary, while *te mauri* embraces a range of Kiribati cultural health-belief systems, it is important that it is defined in a simple, clear, authentic, meaningful, and effective fashion so that any health professionals, policy makers, educationalists, or researchers can easily understand. Dodge, et al (2012) suggested that the definition of wellbeing must be simple, universal, resilient and measurable. The result of this study revealed different perspectives of I-Kiribati on *te mauri* that embraced a holistic health care approach encompassing their cultural, mental, physical, spiritual, social, environmental, but they also displayed an open mind in respect of other health worldviews.

Table 5.2.7(a) below shows a list of common *koran* that emerged from the participants' *karaki*.

<i>Common Koran</i> (Individual coconut fibres) emerged from the participants' <i>karaki</i> – to form the definition of <i>te mauri</i>
<i>Health, peace, prosperity, safety, wellness, happiness, free from illnesses, clean environment, personal hygiene, changing an unhealthy lifestyle, faith healing, bargaining with God, practising or using supernatural healing powers, abandoning conjurations for the Christian faith, respecting and obeying their elders or senior members of their families or communities, strong family connection, nuclear and extended families, community engagement, practising their traditional health practices that have been passed down from their ancestors, health is beauty, mooi taberaniakai, cleanliness, te kauti n tebotebo, dancing, see GP, use family remedies, treat cough with kawakawa, treat sore throat with Niuean's remedies, use remedy for gall stone from a Tuvaluan friend, traditional massage in pregnancy, child, post-delivery, traditional pain relief techniques-kotokoto, anai maraki, riring, self-diagnosing – kabuebuen te nano, inherited gifting of traditional healing – te uee, healthy local foods, healthy preparation of food – local style, te tintin, boiling and steaming, no fat, avoid frying with grease and oil.</i>

Most migrants need to take time to maintain and keep abreast of options for their health and wellbeing as they familiarise themselves with their host country of New Zealand. Thus, as they navigated their own cultural health-belief system of *te mauri*, and their indigenous health practices in New Zealand, they also demonstrated a range of health-seeking behaviours to accommodate their Kiribati cultural health-belief system. This navigation of their own Kiribati cultural health-belief system of *te mauri* is demonstrated in interweaving the strands of the net of *te kora* as shown below.

Figure 5.2.7(b) Shows a mesh of *te kora* representing how I-Kiribati navigate concepts of *te mauri* to manage their health and illness. Image drawn by Schutz, T. 06/02/2022.

This study therefore revealed a profound insight into the meaning of *te mauri* in the context of the I-Kiribati health-belief system. Taking this a step further, I propose here a model that incorporates the findings and supports the definition of *te mauri*.

5.3 TE KUAN MODEL OF TE MAURI: THE EMERGING MODEL FOR I-KIRIBATI MIGRANTS.

This section first describes *Te Kuan*, the sinker net (Koch, 1986), one of the Kiribati traditional hand-crafted fishing nets made from a long skein of *te kora*. Modelled by the process of making *te kora*, I will explain how the

koran and the *binoka* emerged from the participants' *karaki* form *te kora* that makes *te kuan*. Secondly, I will explain *Te Kuan Model of Te Mauri*.

Six main *binoka* emerged from the participants' *karaki*, (see figure 5.3(a)). These six identified *binoka* were: 1) health-illness perceptions; 2) the value of traditional practices; 3) Kiribati traditional health practices; 4) healthy food and its production; 5) beauty and wellness beliefs and practices; and 6) the use of western medicine. These were then carefully rolled together to form *te kora* (see 5.3(b)).

Figure 5.3(a): Images of *te koran*, *te binoka*, and *te kora*. Photo taken by T. Schutz 1-01-2022.

As mentioned earlier in chapter three, *te kora* is made up of two *binoka* (see figure 5.2.2), these two *binoka* were carefully rolled and twisted, and subsequent *binoka* were added to the end of the *binoka* to make a long skein of *te kora*. Modelled by the process of making *te kora*, the six main *binoka* were rolled and twisted to make, a stronger and thicker special version of *te kora* compared to two *binoka* that form the original of *te kora* from Kiribati (see Figure 5.2(b)).

Figure 5.3(b). *Te kora*

For this model, *te kora* is made from the six *binoka*. *Te kora* are carefully woven and knotted to create *te kuan*, a fishing net, structured like a basket with an oval opening. The oval opening is stabilised with pemphis wood that is woven into *te kora* at the top of the net, to make the round opening of the basket net steady. There are four strands of *te kuan*, about a metre long that are tied at the four areas around the pemphis of *te kuan* to create a balance. The other ends of the four *kora* meet and are tightened together with a figure eight knot to create a loop. There is also another piece

of *te kora* about two metres that is tied from the middle of *te kuan* while the other end is tied to a piece of rock that anchors *te kuan* (see figure 5.2.5 below).

Te kuan is a hand-crafted net, which is an important element of the Kiribati culture. It is used both for fishing and for food storage. I use *te kuan* as a metaphor for I-Kiribati health. It brings together the six elements that comprise I-Kiribati health in a culturally recognisable manner for the I-Kiribati in New Zealand, all neatly tied with *te kora*. These six elements are:

1. *Te mauri* (a detailed discussion provided prior to this section) is represented by the net of *te kuan*, woven by strands of *te kora* and which is fundamentally a state of wellbeing which the model explains and supports. The net of *te kuan* represents I-Kiribati cultural, mental, physical, spiritual, social environmental and 'other' health perspectives which are carefully woven knotted and crafted to establish *te mauri*.
2. The *kaainga* is represented by the round ring of pemphis wood at the top of the net. The round form indicates how the *kaainga* must work together within the *kaainga* circle to support each other. Without this firm pemphis ring, the soft mesh below will not hold its shape or serve its function, just as the family circle must be strong.
3. Kiribati cultural practices ground this model, and preserve the identity of I-Kiribati, via such practices as *tabu*, social roles, and obeying the elders. This is represented by the heavy stone, tied by *te kora*, anchoring *te kuan*.
4. The health seeking behaviours for protecting the I-Kiribati individual, *utu* and *kaainga*'s cultural, mental, physical, social, spiritual, and environmental health needs are represented by the mesh of *te kora* of *te kuan* and the four strands of *te kora*, which balance the net.
5. The integration of Te Kuan Model of *Te Mauri* is represented by the four strands of *te kora* each representing the four health practices, Kiribati, Western, Māori, and 'Other' Pacific health practices, are tied together with a figure of eight knot creating a loop at the end.

Participants used more than one health practice and often as many as four. These practices are represented by the four strands of *te kora* which create balance for the net below.

6. And finally, the social networks and connections outside of the *kaainga* are represented by the loop at the top of *te kuan*. While the anchor of *te kuan* secures the I-Kiribati identity through traditional practices, the social networks and connections also play a major role in securing and stabilising *te kuan* or the net of *te mauri*.

Figure 5.3(c): *Te Kuan Model of Te Mauri*. Image from (Koch, 1986, p. 23).

5.4 THE *KAAINGA*

The next part of the model that I explore is the *kaainga*, or extended family ties, a vital component of the *Te Kuan Model of Te Mauri*. Extended family ties in this sense refers to participants living together with their extended families such as parents, children, children's partners and grandchildren providing and supporting each other. Strong family ties also mean that participants keep in contact with each other and reciprocally connect with their extended families locally or outside their regional areas, or even with those in Kiribati. It was clear that participants living together with their extended family were not only fulfilling their cultural responsibilities and accountability for ensuring that all extended members are being supported and cared for, but they were also being mindful of the cultural reciprocity of being rewarded by the blessing of *te mauri* throughout their life.

While mainstream publications on Pacific health often refer to living in an extended family as “over-crowding” and focus on how it predisposes family members to poor health outcomes (Ministry of Health 2014), participants living together in an extended family brings about a perception of wealth and health to members of the extended I-Kiribati family. Living with older children and their partners, and grandchildren results in less stress, than those living within nuclear families. This was demonstrated in the *karaki* of grandparent participants, who felt happy that they were surrounded by their children and grandchildren. While the grandparents or senior members of the family minded and accompanied their own grandchildren, these roles and responsibilities were therapeutic activities and positively contributed to the improved wellbeing of older or senior I-Kiribati in New Zealand. The children and grandchildren also benefit from having their grandparents around them where their Kiribati cultural values are practised and retained. This is where, for instance, they learn to speak the Kiribati language, and hear *karaki* about their family, the history of their *kaainga*, or other Kiribati *karaki* in general.

Parents in this study were happy that their parents minded their children at home, which provided greater opportunity to work full time to

financially support their families' essential needs. For participants whose family contained a large number of youthful or young adult household members, this was also considered as a wealth of resources when it came to allocating specific chores within the household and even contributed to assisting in the welfare of the household. This could include, for example, accompanying their loved ones to the hospital or to their medical appointments. The participants therefore experience less stress as they do not have to come home after work and do the chores. All of these traditional practices were significant, and historically fundamental to maintaining the participants' sense of 'mauri' within their families.

Even when I-Kiribati live in a nuclear family the connection with their extended family through regular visits, staying over at the weekend, particularly for family functions or even community functions (*te botaki*) contribute to *te kaainga* component of *te mauri*. These connections provide moral support and a sense of belonging within the extended family and with the Kiribati community at large.

Family connectedness and being socialised are important to cultural practices of maintaining *te mauri*. Being isolated, for example, when an individual or family member does not attend any family or Kiribati community function, would not be an expected practice for I-Kiribati. A small nuclear family which has no family ties with the extended family could be seen as having inadequate family support and would struggle to find peace of mind in the event of the allocation of family responsibilities and reciprocity.

The roles of individual members of *te kaainga* or extended family is important in the Kiribati culture because it underpins the health and wellbeing of the whole members of *te kaainga*. Like the family roles in the making of *te kora*, members of *te kaainga* have dedicated roles to ensure that the entire extended family is free from physical, mental, social, spiritual, and environmental health issues. This current study depicted those traditional practices for example cooking local healthy foods such as fish, coconuts, *bwabwai*, breadfruits were considered healthy food for I-Kiribati

5.5 SOCIAL AND COMMUNITY NETWORKS

Community connectedness was also another integral part of *te mauri* for all participants. However, in contrast, some participants interpreted that attending some community functions (notably the *botaki*) was paradoxically not very healthy. The *botaki* always involves feasting. Participants appreciated that they could benefit from the luxury of easy access to healthy foods such as green vegetables, salads, and fruit in New Zealand, which they could hardly afford in Kiribati, but they were very aware of the negative impacts of some food such as fried meat and sweet foods that they had very little access to in Kiribati, and that these could negatively impact on their health. Participants showed a strong sentimental attachment to the way they cooked their food. In Kiribati, for example, cooking fish on the outdoor open fire is healthy food, but they explained that they did not have access to this type of cooking style in New Zealand. In relation to community feasting, in the Kiribati culture, I-Kiribati are expected to attend family functions to help with hosting big feasts for the whole community. During these Kiribati community functions where huge feasting is involved, participants were aware that some of these western foods were not healthy foods that they were culturally pressured to eat.

In Kiribati some traditional skills kept as family possessions are rarely shared with non-family members, however these study findings demonstrated that in their new country of New Zealand, I-Kiribati family members publicly shared and taught other I-Kiribati who were outside their family jurisdiction as a way of supporting each other in managing health. The study findings evidenced the fact that as new migrants to New Zealand, I-Kiribati tend to find settlement in a suburb where there is a cluster of I-Kiribati, for the purpose of living closely to support their common goals. An example of this was a traditional healer participant willingly teaching her patient's partner how to *riring* (massage) *te teke* (pleuritic pain), to save time visiting the healer. In another example, one participant described being taught how to massage the neck and chest to alleviate her child's asthma symptoms by a healer who was not related to them. This woman described that the healer saw the need for this mother to have these skills, given that

her child's asthma was unpredictable due to the weather in New Zealand, and that it would also save travel time. In Kiribati, people could only share their traditional healing methods during a *botaki* or community feast, celebration, or funeral, or within extended family gatherings to show their appreciation and reciprocity to those I-Kiribati attending their hosted *botaki*. It can be conjectured that, while I-Kiribati congregate for the purpose of the *botaki*, the congregation has a power to maintain the 'mauri' of the Kiribati community in relation to the benefits of socialisation, and community connectedness but most importantly the sharing of the wealth of traditional health practices in their new home, far from where these practices were honed.

Building social connections and networks with not only members of extended families, but also with members of the Kiribati community and other communities was demonstrated by participants. This is also another significant component of *Te Kuan Model of Te Mauri* represented by the reef knot at the top of te kuan allowing social connections for I-Kiribati to gain trust and be able to share traditional health knowledge and skills to maintain their health.

5.6 HEALTH SEEKING BEHAVIOURS TO MANAGE HEALTH.

The next element in the model is the health-belief-system. Champion and Skinner (2008) emphasised that the health-belief-systems have been broadly used by researchers as a conceptual framework to understand health-seeking behaviours to help understand how people construct their thinking and behaviours towards managing their health, and to find appropriate interventions to improve identified health disparities for a specific population. This study emphasised that factors that emerged from the participants' *karaki* that influenced I-Kiribati health seeking behaviours, decision making, and successful navigation of their preferred health practices came from many sources.

They had knowledge gained from their Kiribati indigenous upbringing; from lived experiences, and connections through their extended family, their own Kiribati communities, and other communities. They also had

experience and knowledge about western health practices. The health of I-Kiribati in New Zealand therefore depends on blending western health practices with Kiribati traditional health, as well as possibly utilising and integrating Māori or 'other' Pacific health practices.

This study showed that I-Kiribati self-diagnosed their children as *kabuebuen te nano* (heat from within the body) when the children displayed inactive, idle, sluggish behaviour, and often not completing their allocated chores. I-Kiribati believed that *kabuebuen te nano* could only be treated with the Kiribati remedies rather than being treated with western medicine. This self-diagnosing and treatment choices was mirrored by the Samoans who were reported to be "active interpreters of illness symptoms..." and could classify according to the symptoms whether the illness was western –(Palagi) or Samoan (Norris et al. 2009, page 1473). While participants were inclined to manage their illnesses by using their Kiribati traditional healing practices, for example, the traditional pain absorption prior to accessing western medicine as required for the balance of *te kuan*, they also gained some support from other parts of the net. For illnesses that were not acute, for example, an 'internal body heat' (*kabuebuen te nano*), participants mainly used their Kiribati traditional methods to make sure that their loved ones were in a state of wellness. Participants who believed that 'internal body heat' must be treated with Kiribati traditional practices, generally used a general massage, and used it mainly for young children to bring down their high temperature. Other participants sought help from their *utu*, extended *kaainga* and community networks not only to bring down the fever, but to find the cause(s) of the internal fever and to rule out any supernatural causes or if the 'internal body heat' was caused by breaking a tabu.

Building on the values of *te mauri* and the importance of culture, the use of traditional healing methods was modified from its use in the home islands. In this sample, several modified and reconstructed their original healing methods using the available resources they could find in New Zealand similar to those they used back in Kiribati. One salient example is of a participant who used lemon juice instead of the juice of *scaevola*

sericea (*te mao*) as this plant is not found in New Zealand. She squeezed the lemon juice into a cup, microwaved it to warm it up and applied it to her toothache. Another participant used ginger roots for cough, fever, to prevent asthma and for general wellness in place of the morinda citrifolia juice as the morinda citrifolia is not available in New Zealand. This participant found the ginger very effective. The Kiribati local remedy of taking concentrated green juice of selected assorted young green leaves found in Kiribati (*taberanikai*) was substituted by eating green salads in New Zealand as reported by one participant. While I expected the participants to use different types of the Kiribati traditional knowledge and skills in managing their health and illness, given that all participants were born and raised in Kiribati, I had not anticipated that I-Kiribati would turn to use similar available resources to reinvent their own traditional healing methods. They also brought with them their unique ways of understanding types of illnesses.

Even while participants continued to practice their Kiribati traditional practices, they also navigated between western health practices including those from the indigenous Māori people. Participants made use of their connections within their workplaces and friends from outside their Kiribati communities and learned of the different types of health practices from their networks. This became evident when participants shared their concerns for example coughing and flu like symptoms with a Māori friend who shared the use of the *kawakawa* as a remedy for coughs. According to Hunt, (2014), navigating is about *dancing between worlds* (Hunt, 2014:28), and the model shows, as did the participants in the study, how *dancing* between a variety of health practices is required to manage I-Kiribati health and wellbeing. What I did not expect when I started this study was the degree to which the health practices of other Pacific peoples with whom they had connections, for example, Tuvaluans, Niuean's, and Māori—would also be part of their health practices. To strike the balance required in *te kuan*, jumping from *te kora* to *te kora* is most likely when the approach currently used is not effective. One example of this was evidenced by a participant who had a cough and had used her own family cough traditional massage

of the neck and chest. While the massage initially soothed the pains in the ribs and chest, when the cough worsened this participant sought help from a Māori work colleague who recommended the use of *kawakawa*, the Māori traditional healing medicine for cough. However, she also accessed her general practitioner who prescribed antibiotics to treat the chest infection, and she had therefore made use of three different kora.

Other participants reached out to other Pacific communities, for example a Tuvaluan friend of one participant who suffered from gall stone pain, suggested a herbal remedy that has been proven by the Tuvaluan family to reduce and dissolve gall stones, and another participant used the Niuean clover grasses remedy for oral thrush.

To show how western and other cultural practices have been integrated, I have used the four strands of binoka upholding *te mauri*. The findings of this study clearly show that all the participants predominantly used western health approaches as well as using their own Kiribati traditional health practices not only to maintain their health and wellness, but also to manage a variety of health conditions. However, some used 'other' Pacific traditional health practices, adapted their Kiribati health practices with the resources available in New Zealand or adapted to the western health approaches following an illness requiring hospitalisation.

My initial assumption was that I-Kiribati immigrants were only navigating between two approaches - their Kiribati traditional health practices and the western health approach. This finding was expected firstly because I-Kiribati have already been exposed to the western health care services in Kiribati, and secondly because I-Kiribati migrated to a host country that is chiefly a westernised country. This study affirmed that I-Kiribati predominantly use their Kiribati traditional healing practices, but also used the western health practices, Māori and 'Other' Pacific health practices. The study findings are also consistent with other studies exploring immigrants' health practices in their host countries. For example, the Chinese immigrants of Australia (Davidson et al., 2018), Korean immigrants of New Zealand (Kim, 2016), Chinese immigrants of the United States (Ma, 1999), Tongans and Samoans migrants of Hawaii practicing

spiritual healing as central to Pacific culture (Ihara & Vakalahi, 2011), and Samoans living in New Zealand and in Samoa (Norris, Fa'alau, et al., 2009).

While I-Kiribati used both health paradigms to manage their illnesses, it was markedly noticeable in the study that all participants initially accessed their Kiribati traditional healing practices, prior to accessing western health services. This was evidenced by the participant who was a traditional healer, and who happened to be in the household of the woman suffering from *te teke*, an acute pain of the ribs associated with trouble breathing. The unwell woman could hardly breathe. The relatives had called for the ambulance, and while they were waiting for the ambulance, they asked the traditional healer to perform *te riring* to relieve *te teke*. *Te riring* made a great impact in relieving the patient's acute rib pain so that the patient was able to breath without any pain when the paramedics arrived where she was assessed, and offered only Panadol and Ibuprofen, the first line of pain relief.

However, interestingly, this study showed that as the participants continued to practice and embrace their Kiribati traditional health practices in New Zealand, they also modified their Kiribati healing methods by using the resources that were available in New Zealand. This finding was resonated in Belliard & Ramirez-Johnsons' (2005) who reported a participant's response that as a Mexican migrant of the United States, that when one of them got sick, they started to remember their cultural home remedies.

One conclusion that could be drawn from the findings was the fact that participants classified illness into three categories – acute, non-acute and how to maintain wellness to avoid feeling unwell. For example, for acute illnesses including chest pain, severe asthma, acute abdominal pain, acute stiff neck pain (*te kai*), pleuritic types of pain (*te teke*), participants were inclined to use their own Kiribati traditional pain absorption methods prior to accessing western medicine. However, participants made a clear distinction between acute and non-acute illnesses when they needed to access their Kiribati traditional health practices, other Pacific health practices, or western health practices. For example, with 'internal fever'

(*kabuebuen te nano*--a fever thought to originate from within the inner body, leading a child to have slow developmental milestones and appear flaccid, this was characterised as a non-acute illness and must be traditionally managed with a general body massage. However, participants' health seeking behaviour for treating 'internal fever' was dependent on their cultural understanding of the definition of fever from the western perspective, the knowledge they gained from the people within their families and communities, and the availability and whether they had easy access to the preferred health practice(s).

This study showed that participants demonstrated acculturation and adaptation which I refer to when an I-Kiribati immigrant demonstrates the learning process necessary to adjust, acclimatise and adapt to a different social-cultural-health and environmental context of the host country, and to live successfully thereby reflecting *te mauri* and good health outcomes.

How I-Kiribati sought health care varied from person to person but could involve anything from integrating new practices from time to time, to reconstructing traditional health practices with new approaches, and adapting to western health approaches.

5.7 INTEGRATING THE TE KUAN MODEL OF *TE MAURI*.

Health professionals working in partnership with I-Kiribati health consumers may find that *Te Kuan Model of Te Mauri* will provide a helpful starting point for upholding I-Kiribati traditional health practices. While further testing and exploration will be required, this provisional mode of health captures the elements of *boutokaan te mweeraoi* framework (Ministry of Social Development, 2015) and provides additional insights. While the four elements of *boutokaan te mweeraoi* framework are depicted in the 'cultural' aspect of *Te Kuan Model of Te Mauri*, *Te Kuan Model of Te Mauri* focusses specifically on health beliefs and practices.

Te Kuan Model of Te Mauri therefore differs in its own right, as it models how I-Kiribati navigate between different health practices including western, Kiribati, Māori and 'Other' Pacific health practices to maintain health and manage illnesses. *Te Kuan Model of Te Mauri* also portrays

how I-Kiribati move from one *kora* of *te kuan* to the next to maintain a balance of *te mauri*, that involves the I-Kiribati immigrants' physical, mental, social, cultural, and environmental health aspects, taking into consideration safe integration, adaptation and reconstruction of health practices that I-Kiribati access to manage their health and illness in the New Zealand context.

It also resonates with the elements of the neo-maneaba model (Namoori-Sinclair, 2020) but also introduces broad concepts that can be used to understand the Kiribati perspectives and inform policy makers.

I propose this model as a “working” model. That is to say, it is a starting point for assessing how I-Kiribati experience and practise health in New Zealand.

As this was a small qualitative study, more consideration of this model will strengthen it for more general use. But, taking into consideration how understudied this population is, it is nonetheless an important starting point. From this model, there is an opportunity to look with some interest and critique, into what actions may be important for both validating the model and ensuring the health of the I-Kiribati in New Zealand.

5.8 ENABLING ACCESS TO WESTERN HEALTH SERVICES.

The study showed that all participants can access western health services but often with some difficulty. Accessing the western health services is a critical element of *Te Kuan Model of Te Mauri* for participants and an important means for maintaining the balance of *te kuan*. The study depicted that while I-Kiribati used their own Kiribati traditional health practices, it became evident that participants access western health practices, Māori health practices and other Pacific health approaches. However, barriers ranged from exposure to unfamiliar advanced health practices in New Zealand, to the lack of knowledge and experience in the use of these western advanced interventions such as diagnostic tests; treatment regimens; or fear of unknown outcomes. Almost half of the participants were first diagnosed with diabetes in New Zealand, and all expressed that they were initially in a denial phase and disbelief. One of

these participants was first diagnosed with diabetes when she underwent diagnostic tests in preparation for an operation. The rest were picked up by their general practitioner (GP) because they needed to do certain medical tests for their immigration paperwork, and others were picked up on regular visits to their GP. While these are enabling approaches for I-Kiribati with diabetes, it is important to note that their diabetes could have been picked up during their pre-diabetic stage resulting in prompt and culturally appropriate interventions. Health awareness on diabetes is one suggested intervention to ensure that I-Kiribati receive equity and equality health services provided by western health services.

Transportation was not an issue among all participants when accessing western health care services. A third (ten) of the participants experienced hospital admissions in New Zealand, eight were admitted either for treatment on themselves or for one of their children being unwell with a severe illness that needed hospitalisation. Four of the participants were admitted to the hospital for surgery, and while they were initially anxious about unknown procedures and other advanced diagnostic tests, they said that they were been cared for in terms of receiving proper reassurance and explanation of the procedures and that this had alleviated their level of anxiety and fear. Whilst studies reported that minority immigrants faced with issues related to language barrier and health literacy (Choi, 2013; Clough et al., 2013; Schmidt et al., 2018), and Pacific population in New Zealand (Foliaki et al., 2020; Southwick et al., 2012), and that language barrier and health literacy were expected to be the issues in this current study, this study affirmed that appropriate reassurance and explanation of the procedures were helpful strategies to avoid any language or health literacy issues, and thus such explanations should be an element to establish *te mauri* for I-Kiribati accessing the Western health care services.

5.9 RESPECTING KIRIBATI CULTURAL PRACTICES

The next element of the model was the role of I-Kiribati elders or senior members of the family as invaluable Kiribati cultural consultants whose roles were to advise members of the households about how they should

behave. The importance of these roles cannot be understated in relation to *te mauri* as experienced by the participants. In a sense, *te mauri* beliefs become meaningful driving forces that shape the ways in which participants view their health and illness and influence their decision making and health seeking behaviours in managing their health.

Respect for Kiribati traditional *tabu* practices also influences health and wellbeing in this model. The participants believe that these *tabu* practices must be followed so that the Kiribati cultural blessings of *te mauri* can be meaningful and effective. In connection with these traditional practices were the participants' significant roles in accomplishment of their familial responsibilities and expectations within the family or community. While these roles were expected to be accomplished by each individual in the family or community as part of everyday Kiribati tradition, it could be concluded that following these practices were not just simply accomplishing traditional responsibilities, but as a result of a cultural urge to demonstrate their honour of obeying their ancestors' traditional *tabu* practices in order for them to earn the power of *mauri*. It was evident from the study that those participants who were inclined to engage with these traditional *tabu* beliefs and practices was because they feared the consequences of not complying or obeying the traditional protocols, rules or practices, because they might inflict upon themselves or their family members consequential unfortunate effects on their health and wellbeing.

Obeying their ancestors' traditional *tabu* practices such as getting up early in the morning to have a shower (*tebotebo*) was also an integral part of obtaining *te mauri* and improving the participants' general health. It has been proven by participants that a regular routine of early morning *tebotebo* gave them a fresh start to their day and they became more productive than when not having the *tebotebo*, but it is also a way of connecting to their ancestors on a spiritual level to obtain the state of *te mauri*. This is not the only study to recognise the significance of indigenous cultural practices on health and wellbeing, and how indigenous peoples' practices of engaging with their ancestors' traditional beliefs influence their health and wellbeing (although studies are few). Examples include: McMullin, (2005) claiming

that when the Hawaiians revitalised their culture, this meant that they also revitalised their health. From the Māori perspective, Rongoa is a Māori traditional healing practice that has a long traditional history within the Māori communities (Mark et al., 2017), and is derived from Māori cultural beliefs and practices. (Ahuriri-Driscoll et al., 2008). Through the practise of the Rongoa, Māori are connected with their ancestors through their wairua (spirit) to maintain their wellbeing (Ahuriri-Driscoll et al., 2008; Durie, 2003).

The Christian faith was introduced to I-Kiribati by missionaries in the 1800s and has been part of Kiribati cultural practice since then. Therefore, prayer was integral for many elders in terms of maintaining connections and restoring harmony. Elders attributed their good health to God and saw prayer and spirituality as key to providing the strength to make it through difficult times. All thirty of the participants belong to at least one religion and were active in their Christian faith. However, while about a third of the of the participants still believed in their ancestors' words of wisdom and supernatural powers, their Christian faith made them abandon their traditional beliefs in supernatural powers and engaged instead with their religious faith to maintain *te mauri*.

The findings also revealed that in light of Christian colonisation and the participants' increase in their understanding of the Christian faith and practices, the participants realised the impact of sorcery on the health and wellbeing not only on other people for which the sorcery was performed, but also on themselves. The participants claimed that once the sorcery was performed on themselves, they were expected to obey their gods, and in this case the gods were their ancient ancestors. A conclusion that was drawn from this finding was that some aspects of traditional practices were highly valued by all participants, however some felt that the traditional skills of sorcery might not be retained and passed on to the next generation.

Some participants emphasised that sorcery or *tabunea* was “not a good thing”, because this involved being possessed by the gods, and thus made them commit to strictly practising the *tabu* practices according to their sorcery dictates. These participants claimed that this experience was not a pleasant one and therefore they shifted to practicing the Christian faith to

ensure they were in a state of *te mauri*. While studies have shown the value of traditional practices to enhance the health and wellbeing of indigenous people (Macfarlane & Alpers, 2009; Norris, Fa'alau, et al., 2009). This study showed that the Kiribati traditional practice of sorcery was not encouraged as a skill to be passed down to the next generation as sorcery was believed to have a negative impact on the health and wellbeing of people.

To reflect on *Te Kuan Model of Te Mauri*, participants demonstrated a variety of practices that were rooted in their Kiribati culture as portrayed in the anchor of *te kuan*. While participants clearly held onto their traditional practices to maintain their state of *te mauri*, they were also open to navigating new ideas and beliefs, however their decisions would depend on their level of understanding and the amount of information they received.

5.10 PRESERVING AND CELEBRATING CULTURE.

This study acknowledged that participants were profoundly keen to preserve their Kiribati culture within their own families and communities. This was evidently demonstrated in participants engaging with their traditional health beliefs of *te mauri* and health practices while in New Zealand. The sharing of their traditional healing skills to those who were not their family relatives in New Zealand, preserved not only their traditional healing skills, but their cultural identity as I-Kiribati. *Te Kuan Model of Te Mauri* is an important cultural model for I-Kiribati as it is a way of not only showcasing their existence, but also to connect to the Māori indigenous, and other indigenous Pacific people in negotiating, integrating, and complementing their cultural health practices in the multicultural country of Aotearoa New Zealand.

5.11 THE SIGNIFICANCE OF *TE KUAN MODEL OF TE MAURI* AND ITS IMPLICATIONS

There is an increase in the appreciation of understanding of health-belief-systems and health models related to a specific immigrant or Pacific population among health professionals. This is because concepts of

specific populations' health-belief-systems and health models are not categorised or captured in the western health approach perspectives (Pulotu-Endemann, 2001; Suaalii-Sauni et al., 2009; Vaka, 2016). In order to develop a culturally appropriate health model specific for a population, the health-belief-system must be understood prior to constructing a health model specific for the population.

This study has explored the health perceptions and health practices that emerged from the *karaki* told by thirty I-Kiribati, using a culturally appropriate research methodology. This study has suggested the definition of *te mauri* that became the cornerstone of the *Te Kuan Model of Te Mauri*, a preliminary health model that is culturally suitable for I-Kiribati immigrants living in New Zealand.

The significance of *Te Kuan Model of Te Mauri* is three-fold. First, this study sheds light necessary to understand the definition of *te mauri* health-belief system, its cultural component, and how *te mauri* is conceptualised by I-Kiribati. The emerging concepts of *te mauri* lay the foundation of how I-Kiribati perceive health, and how they navigate between health practices, and make decisions to manage their health and illnesses. While the participants were familiar with their own traditional practices and valued them as part of their everyday activities, the concept of *te mauri* has not been incorporated in the New Zealand health care system for I-Kiribati health consumers, who are therefore at risk of receiving care services that are not culturally appropriate. The lack of understanding the concepts of *te mauri* could be one of the reasons why Pacific people have poor access to western health services, have higher rates of not attending doctors' appointments, and have poor health outcomes. As I-Kiribati are one of the Pacific ethnic groups and recent migrants to New Zealand, their specific health related issues are under-studied.

Secondly it serves as an opportunity not only to understand the health-belief-system for I-Kiribati, but to weave I-Kiribati health-illness perceptions and how they practice health with western health perspectives. Consistent with the purpose of *te kuan model of te mauri* are: the Ūloa health model developed for the Tongan people, depicted by fishing with coconut leaf

fishing nets, in providing an opportunity for western mental health services to incorporate the Tongan mental health perspective so that western health services can offer culturally appropriate care based on Tongan perspectives (Vaka, 2016). Similarly, there is the *fonofale* health model (Pulotu-Endemann, 2001) with similar health concepts to that of *te kuan model of te mauri*, serving as a framework for Pacific service delivery (Suaalii-Sauni et al., 2009).

Thirdly, whilst *Te Kuan Model of Te Mauri* models I-Kiribati health perception of *te mauri* and their navigation between health practices including the Kiribati traditional health practices, western health practices, 'other' Pacific health practices, and Māori health practices to manage their health and illnesses in New Zealand, it also works for data interpretation of the study findings, weaving the findings that emerged from the participants karaki and the literature depicted in *te kuan*. *Te Kuan Model of Te Mauri* provides a way of drawing together the findings of the study, demonstrating a balance between I-Kiribati empirical-cultural knowledge, lived experiences and available resources to meet the cultural, physical, mental, spiritual, social, and environmental needs of an individual and family members, and equal opportunities to safely access care from western medicine and other preferred health practices to achieve holistic health and wellbeing. The weaving of *te kuan* exhibits a unique weaving technique that symbolises the ways in which I-Kiribati in New Zealand balance empirical-cultural knowledge, lived experiences and the use of available resources to meet the needs as mentioned above and those of the members of the *utu* and the *kaainga*. The I-Kiribati health and wellbeing are embedded in the Kiribati cultural concept of *te mauri*.

The I-Kiribati participants in this study had new ways of experiencing *te mauri* in their new host country as represented by this model, '*Te Kuan Model of Te Mauri*'. Regardless of which health practices they used, or how they incorporated their traditional health practices with a non-traditional health practice, or chose their preferred health practice[s] in New Zealand to manage their health, they all maintained a belief in *te mauri*.

CHAPTER SIX CONCLUSION

6.1 SUMMARY

This study showed that many participants struggle to manage specific illnesses in a timely manner. The study showed that many participants lack the understanding of western health services and what they would need to go through, for example medical diagnostic tests, therapeutic treatments, and other health therapies. It also underlined the need for participants to have a better understanding of not only how to access western services, but also to navigate their preferred health practices in a safe and timely manner, and to ensure I-Kiribati receive integral practices that are culturally appropriate, justifiable and equitable as I-Kiribati citizens of New Zealand. This was evidenced by participants first needing to unpack their understanding of health-illness from their own cultural perspectives prior to understanding and accessing western health practices.

This study also affirmed that I-Kiribati brought with them their traditional health beliefs and values, and they persistently practise these. However, while New Zealand is dominated by western health approaches, I-Kiribati have managed to navigate a variety of health practices including western health practices, their Kiribati traditional approaches, Māori health practices and 'Other' Pacific health approaches. Six key themes emerged from the participants' karaki: 1) health and illness perceptions; 2) the value of traditional practices; 3) traditional health practices; 4) food and its products; 5) beauty and wellness; and 6) the use of a western health approach. From this study, the Kiribati health model which I call *Te Kuan Model of Te Mauri*, is a successful means of navigating health practices for I-Kiribati in New Zealand. These were: 1) Integration of health practices; 2) Reconstruction of health practices; and 3) Adaptation of health practices. Barriers to access the preferred health practice[s] and the dilemmas in decision making were also drawn from the major findings of the study. The literature review indicated that several studies on immigrants' health perceptions and practices across the world have echoed these current study findings and also showed great contribution in understanding how

immigrants perceive and practice health (Assefa et al., 2021; Bui et al., 2018; Li et al., 2017). The findings of these studies have contributed to the health outcomes of immigrants in their host countries (Abdullahi, 2011).

6.2 RECOMMENDATIONS

This study offers an important starting point for reconsidering health practices and how I-Kiribati manage their health and illnesses in New Zealand. The study firstly, offers a research methodology and its methods that are grounded in the Kiribati cultural practice of making *te kora*. It respects the Kiribati ancestral traditions, *tabu* practices, and community connections, and uses the Kiribati language, and in so doing, offers a way in to *te mauri* that is authentic for participants. It adds to the armoury of Pacific research approaches that allows for better exploration of the treasure which is the under-studied Pacific members of our Aotearoa New Zealand community.

It also proposes *Te Kuan model of Te Mauri*, which comprises six elements that model and describe how I-Kiribati perceive health and how they navigate between health practices to manage their health and illnesses in New Zealand (see figure 5.2.5). This model offers the opportunity not only to fill in the knowledge gaps about the health perception and practices of I-Kiribati in New Zealand among health professionals, but it can also be used to meet the health needs of I-Kiribati in New Zealand. Understanding the concepts of *te mauri* is important because these concepts are new concepts for any western health system. *Te Kuan Model of Te Mauri* also offers explanation on how I-Kiribati navigate between their Kiribati traditional health practices, the Western, Māori and Other Pacific health practices and factors that influence their decisions to access their preferred health practice(s).

Te Kuan Model of Te Mauri now needs to be presented to the I-Kiribati community for a broader response. This could include: the Kiribati communities around New Zealand – in Auckland, Waikato, Wellington, and the South Islands Kiribati Communities: e.g. AKWKC, KSIC; church communities such as WKCC, WKUC; I-Kiribati Registered Nurses and

Doctors of New Zealand, I-Kiribati care givers and traditional healers in New Zealand. I will also extend the presentation of this model on air through Pacific Media Network (PMN) Kiribati radio for I-Kiribati across New Zealand to provide their response. After validation of the model, and further refinement, it would need to be progressively introduced into nursing and medical curricula.

In the meantime, however, this study still offers insights that can be immediately made available for use within the western health system. While a qualitative study of a small, understudied group does not enable wholesale change, it does enable I-Kiribati and those working with I-Kiribati a starting point for considering what they may be implementing in their navigation of health care in New Zealand. This offers areas to ask about, principles to tentatively respect, and values to propose.

The recommendations for further studies are drawn from this 'first of its kind' study. Several scientific experimental studies are recommended from the study findings particularly to prove efficacy of the Kiribati traditional health practices that participants have used to treat their ailments. These include the use of medicinal plants to examine their properties for example: pandanus roots used for the treatment of *kabuebuen te nano*, and prevent contracting illnesses, *scaevola sericea (te mao)* for toothache, *morinda citrifolia* young green fruit for cough and asthma, juice from the green fresh coconut husks (*toatoan te nii*) for the treatment of *kabuebuen te nano*, and banana leaves for the treatment of burns. There are also other pain relief remedies included massage techniques, for example, the *riring* in pregnancy, before birth and after birth to alleviate pelvic pains, and also the *riring* for children's health. A more comprehensive qualitative study is required on the subject to explore in-depth the concepts of *Te Kuan Model of Te Mauri* and the success of its implementation.

6.3 LIMITATIONS

Limitations to the study were also drawn from the research methodology, method, analysis, findings, the discussion of this research as well as the cultural 'norms' and expectations of the study participants.

Firstly, these limitations include translation from Kiribati. While the translation was carefully done in a manner that attempted to capture all concepts as revealed in the participant's *karaki*, and with the use of the Kiribati nuances and participants' Kiribati language quotes next to the English version of the quotes, translation from Kiribati to English might not capture the essence of the Kiribati language. However, I carefully translated the participants' *karaki* and I included important phrases that were said in the Kiribati language to keep the essence and authenticity of the participants' *karaki*.

Secondly, the culture surrounding the revealing of sensitive topics for example health conditions that involve *tabu* private body parts could be something that might not be captured fully in the participants' *karaki*. However, I approached the situation as a nurse, noticing and being aware of the situation, particularly when noticing any cultural sensitivity such as sexual health. I initially started with explaining that the participants' *karaki* would be treated in confidence and privacy would be maintained throughout the research. I have also used my hat as a registered nurse when there were issues raised that would urgently needed to be addressed, and this was done providing numbers to contact or encouragement to ring their GPs.

Thirdly, the nurse-participant power relationship could also be a limitation to the study. As a small community within New Zealand, where nearly everyone knows everyone else, participants might have known my background as a nurse, and they might have concealed some of the information about their health beliefs, values, or practices to manage their health and illness in New Zealand. I managed this in a cultural manner by reiterating confidentiality and privacy, and also explaining that the research was about listening to their *karaki*, it was about their perspectives, and that there would be no prejudice from my part.

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APPENDIX 1: INVITATION TO PARTICIPANTS AND RESEARCH INFORMATION SHEET

Understanding I-Kiribati immigrants navigating between their cultural health practices and western medicine in New Zealand

Participant's Information Sheet

Dear participant,

Ko na mauri n ana tangira te Uea.

My name is Teramira Christine Schutz and I am PhD thesis student of the Graduate School of Nursing, Midwifery and Health at Victoria University of Wellington. As part of this pathway of study, I am undertaking a research project about how I-Kiribati immigrants practice health in New Zealand. This research has been approved by the Victoria University of Wellington Human Ethics Committee (reference number 0000025730).

How can you help?

I would like to invite you to participate in this research. You have been invited because you:

- are an I-Kiribati first generation immigrant, born and raised in Kiribati but now live in New Zealand
- have used the New Zealand health care system for any acute, on-going or routine health and illness management.

How will this research be done?

If you agree to participate in the study, I will ask you: to attend one or two sets of meetings (*maroro*). The *maroro* will be done in New Zealand, in a place convenient to you, for example your home, an office or a classroom space. The *maroro* has two phases; the first phase will be a chance to introduce yourself and myself as a researcher. I will later explain my research project. When you have understood my research project and agree to take part, I will ask you to sign a consent form. In the second phase of the *maroro*, I will ask you to tell *am karaki* about how you practice health in New Zealand. With

your permission, I will audio record and take notes during our *maroro*. The *maroro* will be in the Kiribati language and each *maroro* will take approximately one hour. You are welcome to bring a support person with you to the *maroro*. Your support person will be briefed on the importance of keeping the *maroro* confidential and will also be asked to sign the support person a confidentiality agreement.

What are your rights if you choose to be a research participant?

You do not have to accept this invitation if you do not want to. However, if you do decide to take part in this study, you can choose not to answer, give comments or stop the *maroro* at any time, without giving a reason. You can also withdraw from participating in the study by contacting me at any time before the final analysis of *am karaki* which is by the 30th December, 2018. If you decide to withdraw, your *maroro* transcripts and audio records will be destroyed or returned to you. You will also receive a gift voucher of \$30.00 for participating in the study even if you have decided to withdraw from the study. You also have the right to ask any questions about the study at any time.

My role as a researcher and what you will expect from the study

I will transcribe *am karaki* and later write up a summary. You will receive a summary of *am karaki* via your email for your feedback and to let you know if there is a need to meet for a subsequent *maroro*. This subsequent *maroro* will take place 3-4 weeks after the first *maroro*, to obtain your reactions to my initial analysis and to discuss anything else that has come to your mind on the subject since our first *maroro*. In the event that you raise serious and possible untreated health issues during the course of the *maroro*, I will provide you with health information and refer you to appropriate health professionals or other appropriate authorities, but without identifying yourself as a participant of this research project. If you reveal any issues that may harm yourself or others, I will seek appropriate help and this may also involve disclosing relevant information to appropriate authorities but without identifying yourself as the participant of this research.

What do I do with *am karaki* and other information I gather during our *maroro*?

I will keep all the information you give me confidential which means that I will be the only researcher that knows your identity, have access to your audio recordings of *am karaki* and transcripts. *Am karaki* as data will be combined but your identity will not be revealed in any reports, presentations or public documentations. Only my supervisors will read the English versions of the transcripts of *am karaki* and summaries of themes. A written summary of your *maroro* will be sent to you via email at the completion of translation. The *maroro* transcripts, summaries and audio-recordings will be securely kept and destroyed five years after the completion of the research project, that is by the 30 December 2025.

What will this research project produce?

At the completion of my PhD study, a complete thesis will be submitted to the Graduate School of Nursing, Midwifery and Health and later deposited in the University Library. There will be more than one publication in scholarly journals about this thesis in which the findings will be discussed.

Please feel free to contact me or my supervisor, Professor Annemarie Jutel on the number below if you would like to ask any questions or receive further information about the project.

If you have any concerns about the ethical conduct of this research you may contact the Victoria University Human Ethics Committee

Convener: Dr. Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463-9451

Ko bati n rabwa ao are ieta nanom ni ibuobuoki.

Ngai raom ni beku ibukiia ara koraki n I-Kiribati.

Teramira Christine Schütz

PhD Thesis Student

Phone: 043207237 3103 Extension 3207

Email: Mira.Schütz@vuw.ac.nz

Prof. Annemarie Jutel

Primary Supervisor, Phone work: 04 463 6140

Email: Annemarie.Jutel@vuw.ac.nz

APPENDIX 2 : INVITATION TO PARTICIPANTS AND RESEARCH INFORMATION SHEET – KIRIBATI TRANSLATION

Understanding I-Kiribati immigrants navigating between their cultural
health practices and western medicine in New Zealand
Participant's Information Sheet (Kiribati version)

Beeba ni kaongora ibukim n te kakae iaon rabakau aika a boou
Nakoim te I-Kiribati ae ko kan ira te kakae aio,
Ko na mauri n ana tangira te Uea.

Arau Teramira Christine Schütz ao I karaoa ngkai au reirei iaon te
rabakau n taokita ke te Doctor of Philosophy (PhD) are e rekereke ma te
ukeuke ni kakae an rabwakau ma waaki aika a boou n te kura n reirei ae
te Victoria University of Wellington ni mwangana are te Graduate School
of Nursing, Midwifery and Health. E na boboto au kakaea aio iaon
kakae an ana iango, rabwakaun ao katein te I-Kiribati n tararuakin
maurina ao aorakina iaon New Zealand. Te kakae aio e a bon tia n
kabwaataki man te Kuura aio ni mwangana are e tabeakinii oin tua ibukin
karaoan te kakae n te rabwakau ae Victoria University of Wellington
Human Ethics Committee (Aio te namba ni kakoauaan: 0000025730).
Te kakao nakoim ngkana ko kukurei.

Iai karineam irou n anoiko bwa kona riki bwa temanna ngkoe are ko na
tibwaa am iango iaon te kakae aio. I anoiko bwa bukina bwa ngke:

- te I-Kiribati are ko bungiaiki ao ko ikawairake i Kiribati ao ngkai ko
a maeka I New Zealand.
- ko a tia n rin n te o-n-aoraki i New Zealand ke ni kabongana ana
tabo ni kuakua New Zealand ibukin aorakim ke ibukin
kateimatoaan tein marurungim.

E na kanga ni wakinaki te kakae aio?

Ko aki kairoroaki bwa ko na ira te kakae aio. Ngkana ko kukurei n riki bwa temanna ngke are ko na tibwa am iango ma am anga n tobwaa maurim ke aorakim ao aikai bwaai aika a na waakinaki:

Ko na ira te maroro ae nakon 1 ke 2 te tai. Te maroro aio e na karaoaki iaon New Zealand n te tabo are e angaraoi ma ngke n aron; am auti, te aobiti ke te umwanreirei. Iai uoua mwaangan te maroro aio. Te moan makoro n maroro, e na boboto iaon te ikikina ao n rimwiaki ma au kabwarabwara iaon te kakae aio. Ana iai naba beba aika ko na tiainai ngkana ko a matata raoi ao ni kukurei n aki tobonaki n ira te waaki ni kakae aio. Te kauoua ni makoro, e na boboto iaon am karaki are e kaineti ma ami iango, am katei ma arom n kateimatoan maurim ma am anga ni bwainnaoraki. Man am kariaia ao n na rawea am karaki n te bwai n rawe bwana ao n koro i naba tabeua iango iaon te beba. Tina karaoa te maroro n bon oin ara taetae n Kiribati ao e na nakon teuana te aoa maanin ara maroro. Ko kona ni kaira raom temanna nakon te maroro aio ngkana ko tangira raonakim. E na bon kabwarabwaraki naba nakon raom are ko kairia rongorongon te kakae aio ao man butiaki naba bwa e na tiainaa te beba ni kakoaua ae e na aki taekina kanoan te maroro nakon temanna ma temanna.

Tera inaomatam ngke are ko a tia n anga nanom bwa ko na ira te kakae aio?

Aikai inanomatam inanon te waaki ni kakae aio:

Ko kona n katoka te maroro n te tai are ko taku bwa ko aki mwengaraoi n karaki iai. Ko kona n aki kaekai titiraki ke n anga am iango inanon tain te maroro. Ko kona naba n bubai man te kakae aio n te tai are ko taku, ko a tii reitaki naba ma ngai ibukin karaoan am bubai n akea te titiraki man au itera ni kakae bwa bukin tera. Ngkana ko kan bubai ao n na bubuti bwa e na riai n roko am taeka imwain 30 Ritembwa, 2018, te tai are n nang wakina iai kabanean kabwaranakoan nanon *am karaki* (final data analysis).

Ngkana ko kan bubai, ao am karaki are ko tibwaia n ara maroro a na bane ni kaokaki nakoim ke ni kamaunaaki n te aro are akea ae ena nooria ke ni kabonganai n anga tabeua riki. Ko na bon anganaki naba te

bwaintangira are e a tia n katauaki man te kakae aio e ngae ngke ko a bubai. Iai naba inaomatam n titiraki ibukin te kakae aio n te tai are ko taku.

Tera tabeu ngai ae te tia kakae ao tera am kantaninga man te kakae aio?

N na korea taekan am karaki are I raweia n te bwai n rawebwana. N na raira am karaki nakon te taetae n lmatang. N na kanakoa nakon am email katotongan rairan te boota ni iango are e reke man am karaki bwa ko aonga n anga ami iango iaona. N na kaotia naba n te email nakoim ngkana e na kainnanaoaki riki te ka-uoua n maroro iaon te kamatata iaon ami iango are ko anga n te moan maroro. Te ka-uoua n maroro e na karaoaki inanon 3 ke 4 te wiiki imwin te moan maroro ngkana e kainnanaoaki. Ngkana iai kanganga ke aorakim aika ko manewei inanon am maroro aika a tuai kakaeaki bwainnaorakiia ke kanganga ake ana karika te mwebuaka iroum ke aomata tabeman, ao iai kabaeakiu bwa n na kabwarabwara nakoim kawaim ibukin am bwai n aoraki ao n reitaki ma taan mwakuri n te kuakua are tabeia, ma aio e na aki rekereke ma mwanewean aram ae kain te kakae aio ngke.

Tera ae n na karaoia ma am karaki are ko tibwaia nakou?

N na kawakina am karaki n aki karakinna nakon temanna ma temanna. Bon tii ngai ae n na ata aram, ao n na kawakina raoi taian rawebwana ma koroboki ake a reke man ara maroro. N na raira am karaki nakon te taetae n l-Matang ao ana akea ae e na ongora ke n noori taian rairairi aikai bwa ti ngai ma au tia reirei (supervisors). N na kanakoa nakoin am email te boota ni iango iaon au rairairi are I karekea man am karaki. N rokani raoi rawebanaan am karaki ma taian koroboki ake I karekei man te maroro ao akea ae e kona n norii. N na kamaunaai rabwatan rawebana ma koroboki imwin nimaua te ririki imwin banen te kakae aio n 30 Ritemba, 2025 imwin tian raoi karaoan rongorongona (thesis).

Tera mwin te kakae aio

N banen te kakae aio, ao n na korea kabwaranakoan rongorongon taian karaki ao man boretiinna te boki (thesis). Teuana te katoto e na karinaki n te kura n reirei ae te Graduate School of Nursing, Midwifery and Health, ao teuana e na karinaki n ana library te Victoria University of Wellington.

N na karina naba rongorongon te kukune aio n taian nutibeba (scholarly journals) ibukin karababan te ongora nakon te botannaomata n te rabakau are e reke man te kakae aio.

Ngkana iai ami kan titiraki riki ibukin te kakae aio ao taiaoka n reitaki ma au tia reirei (supervisor) Professor Annemarie Jutel n ana tareboon number ae e mwakoro inano.

Ngkana iai ami kan oota riki ibukin te tua ni karaoan te kakae (research) ao kama taiaoka n reitaki ma te Victoria University Human Ethics Committee Convener: Associate Professor Dr. Judith Loveridge. Email hec@vuw.ac.nz or telephone +64-4-463-9451

Ko bati n rabwa ao are ieta nanom ni ibuobuoki.

Ngai raom ni beku ibukia ara koraki n I-Kiribati.

Teramira Christine Schütz

Tareboon: 04 237 3103, extension 3207

Email: Mira.Schütz@vuw.ac.nz

Professor Annemarie Jutel

Tereboon: 04 463 614 Email:

Annemarie.Jutel@vuw.ac.nz

APPENDIX 3 : COPY OF AN EMAIL SENT TO CHAIR-PERSONS OF THE KIRIBATI CHURCH COMMUNITIES

Dear chairperson of _____

Ko na mauri n ana tangira te Uea.

My name is Teramira Christine Schütz, we may have met in one of our Kiribati community functions here in Wellington. I am currently undertaking a PhD study, working under the supervisions of Professor Annemarie Jutel and Doctor Ausaga Fa'asalele Tanuvasa at the Graduate School of Nursing, Midwifery and Health, Victoria University of Wellington. As part of this pathway of study, I am undertaking a research study about how I-Kiribati immigrants practice health in New Zealand. This research has been approved by the Victoria University of Wellington Human Ethics Committee (reference number 0000025730). At the moment I am currently looking for I-Kiribati migrants who are willing to share their views on this topic, who were born and raised in Kiribati but now live in New Zealand and must have used the western medicine to manage their health and illness in New Zealand.

I am emailing you as the chairperson of your church congregation to request for your assistance to spread the words to members of your church who may be willing to take part in this study.

Participation in the study involves attending one to two maroro, each of these maroro will take one hour and the participant may bring a support person to the maroro. The maroro will be in the Kiribati language. I have attached a flyer for more details about my research study including my contact phone number and email address.

If you have any questions or wanting any clarification on the study, I am more than happy to come to a meeting to discuss this further or pass my contact details: email: mira.schutz@vuw.ac.nz Phone: 04 237 3103 Extension 3207 or mobile: 0272785437, to potential participants or if they are happy for me to ring them up, that would be very helpful.

Thank you for your time and support

Ngai raom n beku ibukiia ara koraki n I-Kiribati I New Zealand.

Teramira Christine Schütz, PhD Thesis Student.

**APPENDIX 4: COPY OF AN EMAIL SENT TO CHAIRPERSONS OF
THE KIRIBATI CHURCH COMMUNITIES (THE KIRIBATI
TRANSLATION)**

Nakon te Tia Babaire, _____

Ko na mauri n ana tangira te Uea.

Arau Teramira Christine Schütz, ao ngai temanna atein te reirei ae te Graduate School of Nursing, Midwifery and Health n te kura ae Victoria University of Wellington. Au kantaninga bwa ti a tia n kinaira n ara bobotaki n Kiribati iaon Wellington. Au reirei ae I teboakinna ngkai bon te doctor of philosophy (PhD) ke te taokia are e rekereke ma te research ke kakae ibukin karababan te rabakau ma kukune aika a boou. Au reirei ni kakae e boto iaon au kan atatai iaon ana koaua ma ana makuri te I-Kiribati n tararuaa maurina ma aorakina iaon Nutiran. Au reirei aio e tararuaaki irouia au tia reirei aika: Professor Annemarie Jutel ao Doctor Ausaga Fa'asalele Tanuvasa man te reirei ae Victoria University of Wellington. Te kakae aio e a tia naba ni kabwaataki taekana man te komete are e tararua tuan te kaka (research) ae te Victoria University of Wellington Human Ethics Committee (te namba ni kakoaua 0000025730). N te tai aio ao I a roko n te mwaneka are kakaeaia ara koraki ni I-Kiribati aika a kona n anga nanoia bwa ana anga aia iango ma aia mwakuri n tararuaan mauria ke aorakiia iaon Nutiran.

I aanga karineam ngke ae te tai babaire n te botaki n aro ao n kanakoa nakoim te reta aio, ni bubuti am buoka ngkana ko kona n katanoata rongorongon au kakae aio nakoia kain am aro, ao ni kukurei n ira te waaki aio.

Naake a kukurei n ira te kakae aio, a kantanigaaki bwa ana ira te maroro ae e nakon 1 ke 2 te tai, ao e na nakon te maan ae teuana te aoa. Ibukin rongorongoa ae e bwanin ao I a kairia ma te reta aio rongorongona (flyer attached).

Ngkana iai riki am kan titiraki n kan oota ao I rang kukurei n roko n ira ana bowi ami taibora ngkana e riai ma iroumi ni karaua raoi n kabwarabwara.

I kukurei naba ngkana ko kona n anga au email ae mira.schutz@vuw.ac.nz ke namban au tareboon ae 04 237 3103 Extension 3207 or mobile 0272785437. I rang kukurei naba n butimwaei namban aia tareboon te koraki ake a kukurei n ira te kakae aio ngkana a kukurei n anganiko bwa I aonga n kona n reitaki ma ngaiia.

Ko bati n rabwa ibukin am boutoka.

Ngai raom n beku ibukiia ara koraki n I-Kiribati I New Zealand.

Teramira Christine Schütz.

Ataein te reirei (PhD Thesis Student).

APPENDIX 5: FLYERS ENGLISH VERSION

Graduate School of Nursing, Midwifery and Health

Victoria University of Wellington

RESEARCH PARTICIPANTS WANTED

Are you interested to take part in this research project?

I am looking for I-Kiribati migrants of New Zealand who are willing to take part in this research study.

Who can participate?

- I-Kiribati migrants who were born and raised in Kiribati but now live in New Zealand, and
- Must have used the western medicine to manage their health or illness
- What is the study about?

To find out how I-Kiribati immigrants practice their health in New Zealand

Ethics Approval

This research project has been approved by the Victoria University of Wellington

Human Ethics Committee reference number 0000025730.

How is this study done?

As a participant in this study, you will be asked to:

Attend at least two maroro sessions.

Each of these sessions will last an hour.

You can bring a support person to this maroro.

The maroro will be conducted in the Kiribati language

In appreciation for your time, you will receive a \$30 gift voucher from this research study

For more information about this study, or if you are willing to take part in this study, please contact:

Teramira Schütz

Phone number: Mobile: 0272785437 or

Email: mira.schutz@vuw.ac.nz

Graduate School of Nursing, Midwifery and Health

Victoria University of Wellington

APPENDIX 6: FLYERS KIRIBATI TRANSLATION

Graduate School of Nursing, Midwifery and Health
Victoria University of Wellington

Ko nano n kan kaina te kakae aio?

Aio au kakao nakoim ngke te I-Kiribati iaon New Zealand are ko kan tibwaa am iango ma rabakaum n tararuaa maurim iaon Nutiran.

Antai ae e kona n ira te kakae aio

- Ngke te I-Kiribati ae ko bungiaiki ao ni ikawairaki I Kiribati ao ngkai ko a maeka I Nutiran
- Ko na tia n kamanenai bwaai n aoraki ni I-Matang ibukin katokan ke totokoan aorakim

Tera te kakae aio?

Te kakae aio e boto iaon au kan atatai iaon ara katei ma ara aanga ngaia I-Kiribati n tararua maurira ao n totokoa ke n katoka aorakira iaon Nutiran

Rekereken te kakae aio ma te oi n tua

E a bon tia n kabwaataki te kakae aio man te komete are tabena kabwatan te kakae ae Victoria University of Wellington Human Ethics Committee, aio numban kakoauana 0000025730.

Tera ae ko na karaoia ngkana ko kaina te kakae aio

Ko na butiaki bwa ko na ira te maroro ae e nakon 1 ke 2 te tai. Maanin te maroro bon teuana te aoa. Ko kona n kaira raom temanna are e na raoniko n te maroro aio. E na karoaki te maroro n te taetae n Kiribati.

Iai te bwai n tangira (\$30.00 gift voucher) are ko na anganaki ibukin karabwakim n am tai man te research project aio. Ngkana iai riki am titiraki ibukin te kakae aio, ke ngkana ko kan anga nanom bwa ko na ira te kakae aio ao taiaoka n reitaki ma Teramira Schütz n te tareboon

namba: 0272785437 ke te email ae mira.schutz@vuw.ac.nz, Te
Kura ae te Graduate School of Nursing, Midwifery and Health, Victoria
University of Wellington

APPENDIX 7: SUPPORT PERSON CONFIDENTIALITY AGREEMENT

Support Person Confidentiality Agreement

Research project: How I-Kiribati immigrants practice their health in New Zealand?

Researcher: Teramira Christine Schütz

(Please tick the box to indicate you agree to the indicators of this Confidentiality Agreement)

☐ My role as a support person in this research has been explained to me during the first part of the maroro and all my questions have been answered to my satisfaction. I therefore agree to:

☐ treat the name of the participant as confidential.

☐ treat the maroro and the participant's story as confidential.

Name:

Signature:

Date:

APPENDIX 8: SUPPORT PERSON CONFIDENTIALITY AGREEMENT KIRIBATI TRANSLATION

Support Person Confidentiality Agreement (Kiribati version)

Am kariaia ngke te tia boutoka te tia ira te kakae n n aki taekina kanoan te maroro

Research project: How I-Kiribati immigrants practice their health in New Zealand? A kanga I-Kiribati n tararuaa mauria i New Zealand?

Researcher (Te tia kakae)Teramira Christine Schütz

(Please tick the box to indicate you agree to the indicators of this Confidentiality Agreement.)

(Kaeta te baoki n te boraraoi aio n kaotia bwa ko na kawakina te mwioko)

☐ Mwiokoau n nakoau ae te tia boutoka te tia ira te kakae aio, a tia n kabwarabwaraki nakou inanon te moan mwakoro n maroro ao a tian aba ni kaekaaki au titiraki nakon otau. Ngaia are I a kariaia bwa n na:

☐ kawakina aran te tia ira te kakae aio n aki taekinna nakon temanna ma temanna.

☐ kawakina kanoan te maroro ma ana karaki te tia ira te kakae aio n aki taekinna nakon temanna ma temanna.

Aram:

Am tiaina:

Bongin namakaina:

APPENDIX 9: MARORO GUIDELINE TO PROMPT PARTICIPANTS TO TELL THEIR STORIES.

Attachment 3: Maroro Guide

Maroro was done in the Kiribati language:

Examples of Guiding Questions – English Version by Kvale, (1996)

To allow the participants to tell am karaki, I will initially start the “maroro” with an three open leading questions: These include:

- 1) Introduction and breaking the barrier and sacredness of space
 - a. I must have heard my research project from members of your church?
 - b. Which island do you come from?
 - c. And your parents? Are they alive? Live with you?
 - d. How many children have you got?
- 2) Use leading questions to previous statement or “ami karaki”
 - a. Tell me what does health and illness mean to you?
- 3) Have you or members of your family been unwell lately? And if yes, what do you do?
- 4) What makes you wanting to use that approach to manage your (or your family member’s) illness?

I will also use probes leading questions to prompt the conversation around the identified topic issues generated from “ami karaki”. This will allow clarification, elaboration and at the same time eliciting rich authentic and meaningful data as experienced by the couples. Some of these probes leading questions may include:

- 1) Introductory questions e.g. “can you tell me about your health or illness...”
- 2) Follow-up questions e.g. acknowledging gestures e.g. nodding,
- 3) Probing questions, e.g. “can you describe what you mean by...”
- 4) Specifying questions, e.g. “what did you actually do or felt about that...”,
- 5) Direct questions: e.g. “have you ever been unwell with abdominal pain?”,

- 6) Indirect questions: e.g. “what do you think of your child’s feeling of accessing a GP?”
 - 7) Structuring questions: e.g. “ I would like to draw your attention again to accessing health...”
 - 8) Silence: This is important to allow pause during “Ami karaki” to let couple participants’ time to connect and reflect, this may be useful to allow them to give significance information
 - 9) Interpreting questions: e.g. “ it is correct that you stated...”, “is this what you mean?”
 - 10) Throw away questions: e.g. “ oh I nearly forget to ask you”
- (Kvale, 1996).

APPENDIX 10: PARTICIPANT'S CONSENT FORM

Consent to Maroro (English version)

Understanding how I-Kiribati immigrants practice health in New Zealand

This consent form will be held for three years (2018-2020)

Researcher: Teramira Christine Schütz of the Graduate School of Nursing, Midwifery and Health, Victoria University of Wellington.

I have read the Information Sheet and the research project has been explained to me. I understand what the research is about and all my questions have been answered to my satisfaction.

I agree to participate in an audio recorded maroro.

I understand that:

- my participation in this research project is completely voluntary
- I am free to withdraw from the research project at any time before the final data analysis on 30 December, 2018, and all the data that I have provided will be returned to me or destroyed
- All identifiable data that I provide will be destroyed on the 30 December 2025 after the completion of the research project.
- All data retrieved from fields notes, transcripts and audio recordings will be kept confidential by myself as the researcher.
- The research involves open discussion (*maroro*) that will be conducted in-line with the Kiribati cultural *maroro* protocols.
- In the event that the *maroro* develops in such a way that makes me feel uncomfortable or hesitant, I am free to: discontinue the *maroro*, not answer questions or give comments
- In the event that I raise serious and possible untreated health issues, that I will be given health information and referred to appropriate health professionals
- Security precautions have been taken to protect data transmitted by email

- The data collected and results of this research project will be used for a PhD thesis, published in journals and made available in the library, but my name and identity details will not be used in any report, presentation or publications.

	Yes	No
I would like a copy of a summary of my maroro and have added my email address	☐	☐
My name and identity details will not be used in reports, presentations or publications	☐	☐

Signature of participant: _____

Name of participant: _____

Date: _____

Contact phone: _____

Email: _____

APPENDIX 11: PARTICIPANT'S CONSENT FORM KIRIBATI TRANSLATION

Consent (Kariaia) nakon te Maroro (Kiribati version)

Understanding how I-Kiribati immigrants practice health in New Zealand
E na kaboonganaki te beeba ni kakoaua ibukin am kariaia aio inanon te
ririki 2018-2020

Aran te tia kakae: Teramira Christine Schütz man te Graduate School of
Nursing, Midwifery and Health, Victoria University of Wellington.

I a tia n wareka te beeba ni kaongora ibukin rongorongon te kakae aio,
ao e a tia naba ni kabwarabwaraki nakou. I a oota raoi n te kakae aio ao
au titiraki a tia ni kaekaki raoi nakon otou.

I anga au kariaia bwa e na raweaki bwanau n tain te maroro ni kakae aio
I a oota raoi n aron bwaai aikai:

- I anga nanou bwa n na ira te kakae aio n akea ae e kairoroai
- I kona n bubai man te kakae aio ngkana I tangiria n te tai ae aki akaka
ma e na riai imwain 30 Ritemba, 2018 te tai are e na karoaki iai te
kabanea ni kabwaranakoan au karaki. Au rongorongou ake I a tia n
anga, ana manga kaokaki nakou ke n karenakoaki n te tabo are akea
ae e na noori ke ni kamanenai
- Arau ma rongorongou are n na kinaaki iai, ni ikotaki ma au karaki ake
a raweaki ke a koreaki taekaia iaon te beba, ana bane ni kawakinaki
raoi, ao n rokanaki n te aro bwa ana akea are e na kona n noori, ao
ana bane n kakaki ke n karenakoaki te tabo ae e raba, n nimaua te
ririki imwin banen te kakae aio; n 30 Ritemba, 2025.
- Te kakae aio e na barongaaki raoi n ira nanon te katei n Kiribati
- Ngkana iai aoraki ke kanganga ake I manewei n tain te maroro ake
na karika te aoraki kakaiaki ke te mwebuaka nakoiu ke nakoia
tabeman riki, e na anganai kawaiu te tia kakae nakoia nake tabeia
bwa I aonga ni buokaki.

- A na kawakinaki raoi taian email rinanon te internet bwa ana akea ae e na noria.
- Te kukune are e reke n te kakae aio, e na kabonganaaki ni boretinaki n te book(thesis) ao n taian nutibeba (scholarly journals) ibukin katabangan te ota nakon te botannaomata.

Eang Aki

I tangira au katoto iaon te boota ni iango are e reke man
au karaki nakon au email.

☐ ☐

E naaki kaotaki arau ma kabwarabwarakiu are n na
kinaki iai n te ribooti

☐ ☐

Am tiaina are ko na ira te kakae aio: _____

Aram: _____

Bong n Namakaina _____

Tareboon _____

Email _____

APPENDIX 12 – ETHICS APPROVAL

Phone 0-4-463 5480

Email susan.corbett@vuw.ac.nz

MEMORANDUM

TO	Teramira Schutz
COPY TO	Prof Annemarie Jutel
FROM	AProf Susan Corbett, Convener, Human Ethics Committee
DATE	19 March 2018
PAGES	1
SUBJECT	Ethics Approval: 25730 I-Kiribati immigrants navigating their health and illness in New Zealand

Thank you for your application for ethical approval, which has now been considered by the Standing Committee of the Human Ethics Committee.

Your application has been approved from the above date and this approval continues until 19 March 2021. If your data collection is not completed by this date you should apply to the Human Ethics Committee for an extension to this approval.

Best wishes with the research.

Kind regards

A handwritten signature in black ink that reads 'Susan Corbett'.

Susan Corbett

Convener, Victoria University Human Ethics Committee