Early childhood caries (ECC): A Waikato-Tainui Kaupapa Maaori approach to reducing chronic illness dental decay amongst tamariki and mokopuna

“He awa o Mokopuna oranga niho”

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Whakaraapoto (Abstract)

Early childhood caries (ECC) are a significant health concern for Indigenous Māori children in Aotearoa New Zealand. In an effort to address the significant impact of ECC on the health of Indigenous children, the Health Research Council (HRC) funded a randomised control trial (RCT) “Reducing disease burden and health inequalities arising from chronic dental disease among Indigenous children: an early childhood caries intervention”. The study reported here, was a unique oral health collaborative Indigenous study in Australia, Canada, and Aotearoa New Zealand.

A qualitative study was carried out to explore the experiences of waahine Māori (Māori women) of a randomised control trial to improve the oral health of their peepi (baby, babies). In addition, this study sought to understand the knowledge of, attitude toward, and practice of waahine Māori for the oral health for their peepi (baby, babies); and to see if waahine Māori were able to express their experiences and understandings within kawa/tikanga Māori.

The Kaupapa Māori Research (KMR) philosophical framework utilised kaanohi-ki-te-kaanohi (face to face) interviews, puuraakau (stories, narratives) and adapted Motivational Interviewing (MI) to engage with waahine Māori and whaanau (family, extended family) participants. The Te Niho Taniwha (TNT) iwi (tribe) Kaupapa Māori model was developed as part of Kaupapa Waikato-Tainui to bring together a theoretical framework for the Waikato-Tainui iwi.

The results reveal three key themes: Taonga Tuku Iho (gifts, knowledge, beliefs, values, and practices), Oranga Kai (Eating well) and Tamariki/Mokopuna ora (Health service access). Through the methodology, waahine Māori shared experiences about ways to improve the oral health of their tamariki/peepi/mokopuna (children/baby, babies/grandchildren).
Tuupuna (grandparents, ancestors), maatua (parents, fathers) and whaanau were seen to have an influential role in the outcomes of tamariki/peepi/mokopuna.

The recommendations provided are focussed on achieving improved outcomes for Indigenous children and address practice, policy, and research. By adopting whaanau ora (maximising health and wellbeing for families) approaches to address ECC amongst Indigenous Maori, particularly tamariki/peepi/mokopuna to achieve Mokopuna ora (health and wellbeing for future generation).
Mihi (Acknowledgements)

This thesis “He awa o Mokopuna oranga niho” is the result of exploring waahine Maaori experiences of the RCT study to improve oral health for their babies, in support of the study “Reducing disease burden and health inequalities arising from chronic dental disease among Indigenous children: an early childhood caries intervention” being conducted in Australia, Canada, and Aotearoa New Zealand.

I would like to thank all the waahine Maaori research participants and their whaanau (family and extended family) for giving of their invaluable time, shared puurakau, and knowledge about this significant kaupapa of ECC. The extended manaaki (caring) and aroha (love) in your homes and workplaces was an honour and privilege as the researcher of this study.

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## He whakapoto (List of abbreviations)

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>AG</td>
<td>Anticipatory Guidance</td>
</tr>
<tr>
<td>AUT</td>
<td>Auckland University of Technology</td>
</tr>
<tr>
<td>DHB</td>
<td>District Health Board</td>
</tr>
<tr>
<td>ECC</td>
<td>Early childhood caries</td>
</tr>
<tr>
<td>ICIHRP</td>
<td>International Collaborative Indigenous Health Research Partnership.</td>
</tr>
<tr>
<td>KMR</td>
<td>Kaupapa Maaori research (Maaori philosophy)</td>
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<tr>
<td>MI</td>
<td>Motivational Interviewing</td>
</tr>
<tr>
<td>MITI</td>
<td>Motivational Interviewing Treatment Integrity (MITI)</td>
</tr>
<tr>
<td>OCAP</td>
<td>Ownership, Control, Access and Possession</td>
</tr>
<tr>
<td>RHoT</td>
<td>Raukura Hauora o Tainui</td>
</tr>
<tr>
<td>SDS</td>
<td>School Dental Services</td>
</tr>
<tr>
<td>The College</td>
<td>Waikato-Tainui Tribal College</td>
</tr>
<tr>
<td>TMoTW</td>
<td>Te Mana o te Whaanau, the Waikato-Tainui based research project</td>
</tr>
<tr>
<td>UoO</td>
<td>University of Otago</td>
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Papakupu MI (Glossary for MI terms)

Change talk – any talk that indicates change in behaviour/change toward a goal

MI Spirit – a set of values that guides the way in which the practitioner approaches every client/patient

OARS – open ended questions, affirmations, reflective listening, and summarisation

Ruler – use to gauge from 0-10 how confident and important one is with behaviour change.
He Karakia Timatanga (opening karakia)

Whakataka te hau ki te uru
Whakataka te hau ki te tonga
Kia maakinakina ki uta,
Kia maataratara ki tai
E hii ake ana te ataakura he tio,
   he huka, he hauhu,
      Tihei mauri ora.
   Haumi e! Hui e! Taiaiki e!

Ko te mihi tuatahi, e mihi ana ki te Atua, te timatanga me te
whakamutunga o ngaa mea katoa.

Ko te mihi tuarua whakahoonore i te Kiingi Maaori a Tuheitia e noho ana ki
   te ahurewa tapu me oona maatua tuupuna.

Kia manaakitanga ki runga i a ia i ngaa waa katoa me toona whaanau e
noho i runga i te ahurewa tapu.

Ka huri ooku mihi ki a raatou kua wheturangi ki te poo,

Tai atu ki a maatou te hunga ora.

E mihi ana tenei koorero kia koutou ngaa waahine Maaori me oo whaanau
   i roto i tenei rangahau kaupapa.

No reira teenaa koutou, teenaa koutou, teenaa ra taatou kaatoa.
He Tauira Mihi (Mihi Translation)

Cease the winds from the west
Cease the winds from the south
Let the breeze blow over the land
Let the breeze blow over the ocean
Let the red-tipped day come with

A sharpened air, touch of frost, a promise of glorious day.

The sneeze of life

First of all acknowledgement to Atua, for the beginning and ending of all things.

Honour the Maaori King, King Tuuheitia who carries the mantle of the Kiingitanga and to his whaanau and tuupuna.

Bestow him with safety at all times.

Farewell to the departed. Journey back to the origins of our people.

To us all living, we who survive in their memory, greetings, greetings to us all.

Acknowledgements to the Maaori women and their whaanau who participated in this study.

Greetings!
Pepeha (Introduction of a person)

Ko Tainui tooku waka, Waikato te awa

Ko Taupiri me Pirongia ooku maunga

Ko Pootatau Te Wherowhero te Tangata

He piko, He taniwha, He piko, He taniwha! Waikato Taniwha Rau!

Ko Waikato me Maniapoto ooku iwi, Ko Ngaati Aapakura,

Ko Ngaati Te Kanawa, Ko Ngaati Roora ooku hapuu

Ko Te Tokanganui-a-noho, Ko Rereamanu,

Ko Marokopa, Ko Te Korapatu, Ko Kahotea, Ko Waingaro ooku marae

I te taha o tooku paapaa,

Ko Rangitaea raaua Ko Aihe Huirama ooku Tuupuna. Te Ruhi Huirama
raaua Ko Tauheke Tapara ooku Tuupuna

I te taha o tooku maamaa,

Ko Kataraina Te Waihanea raaua Ko Alexandra Bell ooku Tuupuna

Ko Raukura Rawiri raaua

Ko Richard Dick Bell ooku Tuupuna

Ko Sam Koroihe Tapara raaua Ko Kataraina Kathy Bell ooku maatua

Ki te taha o tooku hoa rangatira a Steven Berryman

Ko Te Kauri te marae,

Ko Ngaati Whawhaakia te hapuu, Ko Waikato te iwi.

Tokorima o aku tamariki. Ko Kataraina, ko Stevie, ko Jackie, ko Hemi,
raatou ko Shania. Tokotoru o aku mokopuna. Ko Pounamu,

Ko Zion Matariki Te Tomo Berryman raatou ko Damien Maui Te Tomo
Berryman, raatou Ko Zaria Rose Berryman. Ko Ngaati Wairere, Ko Ngaati
Raukawa, Ko Ngaati Mahanga ngaa hapuu, me Tuwharetoa te iwi.

Ko Kay Hine Berryman tooku ingoa
Whakapaakehaatia (English Translation)

Tainui is my waka, Waikato is my river,

Taupiri and Pirongia are my mountains,

Pootatau Te Wherowhero is the chief,

At every bend there is a taniwha (guardian),

at every bend there is a Taniwha, Waikato Taniwharau!

Waikato-Tainui and Maniapoto are my tribal links

Ngaati Aapakura, Ngaati Te Kanawa, Ngaati Roora are my hapuu

Te Tokanganui-a-noho, Rereamanu,

Marokopa, Te Korapatu, Kahotea, Waingaro are my marae.

On my father’s side,

Rangitaea and Aihe Huirama are my great-grandparents

Te Ruhi Huirama and Tauheke Tapara are my grandparents.

On my mother’s side,

Kataraina Te Waihanea and Alexandra Bell are my great-grandparents

Raukura Rawiri and Richard Dick Bell are my grandparents on my mother’s side

Sam Koroaihe Tapara and Kataraina Kathy Bell are my parents

My husband is Steven Berryman.  Te Kauri is his marae,

Ngaati Whawhaakia is his sub-tribe, Waikato is his iwi

My five tamariki are Kataraina, Stevie, Jackie, Hemi, and Shania and four mokopuna Pounamu Berryman, Zion Matariki Te Tomo Berryman, Damien Maui Te Tomo Berryman and Zaria Rose Berryman.

They are from Ngaati Wairere, Ngaati Raukawa, Ngaati Mahanga hapuu and Tuuwharetoa.

My name is Kay Hine Berryman.
The pepeha (introduction) connects me to my whakapapa (genealogy, ancestry) and links me back to Waikato-Tainui and Maniapoto tribes. I am of Waikato-Tainui and Maniapoto descent. I come from the descendants of the Tainui waka, connecting through my mountain Taupiri and Pirongia to my parents who are both of Waikato-Tainui and Maniapoto descent. My whakapapa is what keeps me grounded in my cultural identity as a waahine Maaori in Te Ao Maaori and as an iwi researcher in this research study.
He waiata o Waikato awa

“Kia hiwa raa, kia hiwa raa…taapotu ana te ngaru ki taatahi…ma wai e too…

MA TAINUI E TOO!”

Waikato te awa katohia katohia he wai mau.

Katohia he wai mau, ka eke ki Te Puuaha o Waikato te awa,

he piko he Taniwha, he piko he Taniwha.

Kia tupato ra kei tahuri koe, i ngaa aukaha o Waikato.

Whakamau to tītiro ki tawhīti ra, ko Taupiri te maunga, Pootatau te tangata,

   te mauri o te motu e.

E hoe to waka ki Ngaaruawaahia, Tuurangawaawae mo te ao katoa, te tongi

whakamutunga a Matutaera, aue hoki aue.

Hoea to waka kaa uu ki Kemureti, te oko horoi o ngaa tupuna. Ka tau ki Karapiro tītiro

whakarunga, to kanohi, ko Maungatautari, ko Ngaati Korokii, ko Arapuni ra.

   Te rohe o te tuna e.

E piki haere to waka, ko Waipapa, Ko Maraetai, ko Whakamaru Titiraupaenga,

   he maunga manu, ko Ngaati Raukawa e hoa e.

Aue ka huri to waka ki te tai tonga, e tere to waka ko Pohaturoa.

Tītiro kau atu ki te tihi, he parekura l horahia, l ngaa wa o mu a ra.

Aue whaia te ara wai a too tūpuna a Tia, nana l tīti haere te pou, l muri I a ia ko

   Atiamuri e.

Aue kia atu haere atu ra ki Ohakuri, te tomokanga atu ki Orakei Koorako, te whenua

   WaiaWiki Ruapehupehu e.

Aue e to l to waka, I ngaa aratiatia a Tia. Tutuki ana ki te taheke hukahuka, I tahuri ai

to tūpuna, a Tamatea Pokai Whenua e. Aue tīu ana mei he manu rererangi, ki roto ki

   ngaa wai marino o, Taupoo-nui-a-Tia e.”

Kookiri!

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Waikato River song

Waikato is that river that surges before you.
As you travel from Te Puuaha along its current,
at every bend a taniwha.
Be careful lest you capsize in the strong currents of the Waikato.
Fix your gaze on the distance to Taupiri the mountain and
Pootatau the chief,
a custodian for the people of the land.
Paddle your canoe to Ngaaruawaahia, to Tuurangawaewae a place for all people, as it was foretold by Maatutaera. Paddle onwards till you reach Cambridge, the wash basin of our ancestors.

Arriving at Karaapiro, look up to the peak of Te Ihingrarangi. Cease paddling, and look towards Maungatautari where the hapuu is Ngaati Korokii of Arapuni, the region of eels.

Go up to Waipapa, to Maraetai, to Whakamaru and Titiraupenga, the territory of our fellow Ngaati Raukawa.

Turn your canoe to the south and paddle swiftly to Pohaturoa.
Look towards its summit that tells the story of battles once fought. Follow the pathways of your ancestor Tia, for it was he that instilled the pillar known as Atiamuri.

Go carefully to Ohakuri, of the entrance to Oraakei Koorako, to the lands of hot springs and volcanic activity. Haul your canoe up the rapids of Tia.

Encounter the foaming falls that overturned your ancestor Tamatea Pokai Whenua. Behold now the swift bird darts through the sky and settles upon the calm waters of Taupoo-nui-a-Tia. Go forth!

(Harrison, 2012)
Chapter One: Te Koorero Tuatahi—Introduction

Maaku anoo e hanga tooku nei whare
Ko ngaa pou oo roto he maahoe, he patatee.
Ko te taahuhu, he hiinau. Me whakatupu ki te hua o te rengarenga Me whakapakari ki te hua o te kawariki.

_Naa KiingiTaawhiao_
I shall fashion my own house. The support posts shall be of maahoe, patatee. The ridgepole of hiinau. The inhabitants shall be raised on rengarenga and nurtured on kawariki.
(Waikato-Tainui, 2018)

Whakamaaramatanga (translation): This whakatauki by Kiingi Taawhiao reflects the strength of the people and his encouragement to his people to hold strong for the future.

1.0 Timatanga (Introduction)

There is an urgency to reduce the global burden of disease from early childhood caries (ECC) or dental caries within Indigenous\(^1\) populations. One of the most significant current discussions in Indigenous health research is the need to embrace the methodologies of Indigenous cultures when undertaking research for and about Indigenous people. This thesis explores the following research questions:

- What were the experiences of waahine Maaori of a randomised control trial to improve the oral health of their peepi (baby, babies)?
- What was the knowledge of, attitude toward, and practice of waahine Maaori for the oral health for their peepi?
- Were waahine Maaori able to express their experiences and understanding within kawa/tikanga Maaori?

---

\(^{1}\) Indigenous is used as a term to refer to Native or Aboriginal groups with historical ties in a territory prior to colonisation. Indigenous Peoples are regarded as the ‘original Inhabitants’ of a region. While the term is used collectively to internationalise the shared experiences, issues, and struggles of some of the worlds colonised peoples, it is also important to recognise that there are real differences between Indigenous Peoples. Maori are the Indigenous People of Aotearoa New Zealand. (see Haenga-Collins, 2011, footnote p.10).
The World Health Organization (WHO) goals are to build health populations and communities and to combat ill health (WHO, 2018). Four strategic directions for the broad framework for WHO's technical work and also has implications for Oral health programme are: reducing oral disease burden and disability, especially in poor and marginalised populations; promoting healthy lifestyles and reducing risk factors to oral health that arise from environmental, economic, social and behavioural causes; developing oral health systems that equitably improve oral health outcomes, respond to people's legitimate demands, and are financially fair and framing policies in oral health, based on integration of oral health into national and community health programmes, and promoting oral health as an effective dimension for development policy of society.

1.1 Whakahirahira o Hauora (Health significance)

Dental caries is a chronic disease affecting approximately 45 per cent of Aotearoa New Zealand children (Ministry of Health (MoH), 2018, 2018a) with an increasing number requiring tertiary treatment under a general anaesthetic (Johnston cited in Shearman, 2011). Dental caries causes profound suffering, frequently requiring expensive treatment under a general anaesthetic (Maiden et al., 2008). Risk factors and indicators for dental caries include socioeconomic deprivation, suboptimal fluoride exposure, ethnicity, poor oral hygiene, prolonged infant bottle feeding, poor family dental health, enamel defects, eating disorders, irregular dental care, a high sugar diet, a high carbohydrate diet (in people with complex medical conditions), active orthodontic treatment, and low salivary flow MoH (2010)
In USA, Canada, Australia and Aotearoa New Zealand, similar experiences of oral health disparities and untreated tooth decay face Indigenous populations (Broughton, Lawrence, & Jamieson, 2016; Broughton et al., 2013; Jamieson, Elani, et al., 2016; Merrick et al., 2012; Parker et al., 2010). Despite, the substantial work, this serious burden of chronic oral health disease within Indigenous communities is harming our Indigenous children.

The oral health literature reveals interventions such as use of Motivational Interviewing (MI) to reduce oral health disease, cluster randomized controlled trials selection of indigenous women; and indigenous community driven interventions (Batliner et al., 2014; Batliner et al., 2016; Schuch et al., 2017; Smylie et al., 2016; Tsai, Blinkhorn, & Irving, 2017) that have been adapted and tailored to reduce health disparities within Indigenous populations.

Oral health is an integral component of overall health and wellbeing. Dental caries is commonly considered a disease of children but also in all age groups to adulthood (Sheiham & James, 2014). Broughton reported that findings from the most recent national oral health survey have confirmed that Maaori do not enjoy the same oral health (or access to routine dental care) as non-Maaori (Broughton et al., 2014). A study by Schuch et al. (2017) showed that Maaori and Pacific children, children in lower socioeconomic groups, and children residing in non-fluoridated areas have a higher risk of poorer oral health than their peers.

The authors also reported that in the last two decades the national rate of hospital admissions for dental care treatment under general anaesthesia has increased nearly four-fold, from 0.76 per 1000 people in 1990 to 3.01 per 1000 in 2009, with children aged under 8 years having the highest admission rates (Schluter & Lee, 2016).
Recent Ministry of Health 2016 School Dental Services (SDS) data showed that 59% percent of 5-year old European children were caries-free compared to 41% percent of Maaori children living in a fluoridated area (MoH, 2018). A Waikato DHB Maaori health profile report indicated that ‘In 2013, two-thirds of Waikato Maaori children aged 5 years and one-third of non-Maaori children had caries.’ ‘At Year 8 of school, almost three in five Maaori children and just over two in five non-Maaori children had caries (Robson et al., 2015).

In summary dental caries is prevalent amongst Indigenous and Maaori populations at all age groups. This current study will explore the experiences of waahine Maaori (Maaori women) and oral health for tamariki/peepi/mokopuna within an iwi tribal setting.

1.2 Te Mana o te Whaanau (The ICIHRP larger study)

Early childhood caries (ECC) is a significant health concern for Maaori communities in Aotearoa New Zealand (Broughton et al., 2014, 2016; MoH, 2018, 2018a). In an effort to address the significant impact of ECC on the health of Indigenous children, a Health Research Council (HRC) “Reducing disease burden and health inequalities arising from chronic dental disease among Indigenous children: an early childhood caries intervention,” research project was a research based on culturally-appropriate interventions to reduce the prevalence of ECC in collaboration with the UoO, RHoT, University of Toronto and the University of Adelaide. The New Zealand research component was completed and implemented by Waikato-Tainui (2011-2016). The Waikato-Tainui based programme “Te Mana o te Whaanau” (TMoTW) was implemented as a culturally based intervention within the ICIHRP project.
The TMoTW is a randomised-control trial utilising the principles of Kaupapa Maaori research, which encompasses Maaori leadership, Maaori relationships, Maaori customary practices, etiquette and protocol (Broughton et al., 2013). The intervention is implemented from birth and continues for the first three years of a participating child's life. Ethics approval for the Aotearoa New Zealand arm of the study was obtained from the Northern Regional Ethics Committee in September 2010. This is the Ethics Committee which is responsible for health research projects undertaken in the Central North Island. It was registered with the Australia New Zealand Clinical Trials Registry on 26 May 2010 (ACTR Number ACTRN12610000422022). (Appendix D)

1.3  **Uiui me toitoi manawa (Motivational Interviewing)**

The intervention in this aspect of the current study is Motivational Interviewing (MI). Broughton et al. (2016) developed an early childhood caries intervention study which incorporates four interventions: 1) dental care to the mother during her pregnancy; 2) application of topical fluoride to the infants’ dentition; 3) motivational interviewing (MI) and 4) anticipatory guidance (AG) with the child’s mother. The latter two interventions MI and AG are concerned with oral health care practices, nutrition and access to oral health services. The four cornerstones of Te Whare Tapa Wha model *Te taha wairua* (spiritual), *Te taha Hinengaro* (thoughts, mind), *Te taha whaanau* (family) and *Te taha tinana* (physical) underpin the interventions which are an essential aspect of conducting health research (Broughton et al., 2016). To date, there has been no single initiative reported in the published literature that has adopted all four of these intervention strategies.

Establishing the efficacy of combining four previously successful interventions by utilising a Kaupapa Maaori culturally appropriate framework, in reducing the burden of ECC experienced by *tamariki* Maaori (Maaori children), is of high public health significance. Literature suggests
globally, that ‘Motivational Interviewing (MI) is one intervention method has worked successfully in reducing early childhood caries for Indigenous populations, particularly Indigenous women and their infant/babies’ (Harrison, Veronneau, & Leroux, 2010; Jamieson, Bradshaw, Lawrence, Broughton, & Venner, 2016).

There is little research conducted in Aotearoa New Zealand using MI with Maaori populations and none in the prevention of ECC. The current research proposes to look at the experiences of Maaori women in the RCT study to improve oral health for babies, and MI is one intervention utilised.

1.4 Te hanganga o te whakapae (Structure of the thesis)

This thesis explores the experiences of waahine Maaori and whaanau within a randomised trial using Kaupapa Maaori (a Maaori philosophical viewpoint) approaches which utilises TNT model as a preferred culturally appropriate framework. The voices of waahine Maaori and whaanau will be heard discussing the oral health of their tamariki/peepi/mokopuna.

Chapter One: Te Koorero Tuatahi—Introduction is the introduction and provides the significance of ECC, and definitions.

Chapter Two: Te Koorero Tuarua – The Waikato-Tainui Researcher is Rangahau Waikato-Tainui research within a Waikato-Tainui context and ko wai au? – who am I?

Chapter Three: Te Koorero Tuatoru - Literature review of Indigenous voices reviews the literature about Indigenous voices in research. The use of MI as an intervention to improve health in Indigenous populations and in particular, on the use of MI to improve oral health in early childhood in Indigenous populations is reviewed. The research gap is identified, with the research question and aims clearly identified.
Chapter Four: Te Koorero Tuawha – Methodology and Methods describes the methodology undertaken in this study, utilising a Kaupapa Maaori approach. The Kaupapa Maaori methodology allows for interconnectedness that weaves strands both to and within Te Ao Maaori world. It draws upon Te Niho Taniwha conceptual framework, Puuraakau and Mana Waahine Maaori theory as a woven Kaupapa Maaori approach to engaging with participants and two key informants. These Kaupapa Maaori approaches overlay the MI methodology in this study.

Chapter Five – Te Koorero Tuarima – Results presents the results of participants’ voices and key informants. The results of TNT Kaupapa Maaori cultural framework: Kiingitanga (Chieftainship, self-determination), Waikatotanga (Waikato tikanga, customary beliefs and practices), Hinengaro (mind), Wairuatanga (spiritual essence), Whakapapa (genealogy, ancestry), Mana (power, prestige), Whaanaungatanga (relationship, family relationships, connections), Mauri (spiritual essence), and Taha Tinana (mind, body) are presented in this qualitative study.

Chapter Six: Te Koorero Tuaono is the discussion with key results, strengths and weaknesses, waahine Maaori knowledge and practice of oral health.

Chapter Seven: Te Koorero Tuawhitu- Conclusion is the recommendations, future implications using practice, policy and research, and the researcher’s final reflections on this study.
Chapter Two: Te Koorero Tuarua – The Waikato-Tainui Researcher

Ko Waikato te Iwi
Ko Mookau ki runga
Ko Taamaki ki raro
Ko Mangatoatoa ki waenganui.
Pare Hauraki, Pare Waikato
Te Kaokaoroa-o-Paatetere

Waikato is the tribe
Mookau is above
Taamaki is below
Mangatoatoa is between.
The boundaries of Hauraki, the boundaries of Waikato
To the place called ‘the long armpit of Paatetere.
(Waikato-Tainui, 2018)

Whakamaramatanga (translation): This paatetere (chant) provides the boundaries of my own whakapapa as a Waikato-Tainui researcher and my connection to the Waikato awa in the above waiata.

2.0 Timatanga (Introduction)

The inspiration for this thesis is the above Waikato-Tainui paatetere (above) and the Waikato awa waiata indicates the context and location for the current study. The waiata depicts the Waikato awa that flows through significant Waikato-Tainui sites and landscapes. The Waikato awa is Aotearoa New Zealand’s longest awa (river), stretching 125 kilometres. The awa begins at the puna (spring) Waikato iti, located at the base of Tongariro to the Puuaha o Waikato (Port Waikato), west coast of Aotearoa New Zealand. For this thesis, I draw upon my own knowledge and experiences to contribute towards how this thesis will be shaped. I have whakapapa links to Waikato-Tainui and Maniapoto which shapes my values and assumptions in the way of thinking. My own cultural identity stems from knowing who I am. This qualitative study has enabled me to use my own cultural identity and experiences as a waahine Maaori, through a Kaupapa Maaori approach utilising TNT (Waikato-Tainui Maaori philosophical framework).
2.1 Kingitanga (Chieftainship or self-empowerment)

The Kiingitanga was seen as a way to counteract land confiscations, where land was being stripped from Maaori at that time. Kiingitanga is recognised as the Maaori King Movement, which is largely based within the Tainui confederation of tribes in the Waikato region of Aotearoa New Zealand’s North Island (Mahuta, 2005, 2011). The Kiingitanga was established to fulfil opposition to colonial domination and for various Maaori tribes to be led by an elected King (Van Meijl, 2009). There are several iwi who have stood strong within the Kiingitanga and remain dedicated to the movement including koroneihana (coronation) and poukai. The Tainui tribes known as Te Porotaka Nama Tahi are Waikato, Hauraki, Ngaati Maniapoto and Ngaati Raukawa (Van Meijl, 2009).

2.2 Te Tiriti o Waitangi (Treaty of Waitangi)

The Te Tiriti o Waitangi is the founding document in Aotearoa New Zealand (Orange, 2015). Pre-1830s Maaori population were a healthy nation and the Maaori population was at 150,000 people (Wepa, 2015). Moreover, Waikato-Tainui did not sign the Treaty. Orange (2015) reported ‘In 1840, when Maaori chiefs were gathered, Waikato-Tainui did not attend or commit to signing. The first Kiingi Pootatau was elected at Puukawa and signed the Declaration of Independence and there was no signature to the Treaty (Mahuta, 2011). Some hapuu signed the Treaty but for Waikato-Tainui Kiingi Pootatau did not believe that it would do justice for Maaori people.
2.3  Tuuohonohono ki te Kairangahau o tooku whakapapa  
(Connectedness of the researcher's whakapapa)

My whakapapa is strongly tied to Waikato and Ngaati Maniapoto. I have many marae, as expressed in my pepeha. Whaanau ground me in my cultural identity, knowing who I am and where I am from. Being Maaori is inherent and connects me to my tuupuna, my values and beliefs. Cultural connectedness is important and relevant in this research, identifying my cultural connectedness and links to Waikato-Tainui, rangahau Waikato-Tainui and to the Kiingitanga. My maatua are Sam Koroaihe Tapara and Kataraina Kathy Bell. I have two siblings, a whaangai (Maaori adoption) sister and younger brother. My husband Steven is of Ngaati Whawhaakia of Waikato-Tainui and his father Norman Berryman was raised in Rahui Pookeka (Huntly) in the heart of Waikato-Tainui Kiingitanga. His maternal mother is of Ngai Tahu iwi (South Island tribe) and Taranaki iwi (North Island tribe, located on the west coast).

2.3.1  Tuuohonohono ki te whakapapa o tooku maama  
(Connectedness of whakapapa on my mother’s side)

My maama (mother’s) whakapapa is linked back to Taumarunui (Ngaati Haua) and the Wanganui awa (river) (Figure 1 see next page 11). On my maternal side, my mother’s tuupuna, my ruruhi/ kuia (great grandmother) has whakapapa links to Ngaati Hauaroa, Taumarunui, centre of North Island. On my mother’s side, my marae are Te Tokanganui-a-noho, Mangarama, Taanehopuawai and Ngaati Rora, Ngaati Mahuta, Ngaati Aapakura hapuu, and Ngaapuwiwaiwha marae in Taumarunui, where my great-grandfather Alexandra Graham Bell and Kataraina Waihanea Bell lay to rest in the whaanau urupaa (family cemetery).
Figure 1: Map of Whanganui awa  
Sourced from Whanganui Maaori Trust Board.

My tuupuna (great grandparents) are Alexandra Graham Bell and Kataraina Te Waihanea Bell (Figure 2: Whakapapa o Ngati Ruapuha on page 12). My grandfather is Dick Richard Bell, and he was the youngest male child of the Bell whaanau. He married my grandmother Raukura Rawiri (Ngaati Aapakura). Both grandparents were fluent te reo Maaori (Maaori language) speakers. In our whakapapa book (Turner, 1990) “When the Bells toll” the puuraakau of our heritage is shared through whakapapa, connecting us back to all four waka, Aotea, Tainui, Takitimu and Mataatua who arrived in the early centuries. Connections can be made to several waka, hapuu and iwi, if the person can identify their links. For example, my tuupuna are also of Te Arawa tribe.
2.3.2 Tuuhonohono ki te whakapapa o tooku paapa (Connectedness of whakapapa on the researcher’s father’s side)

My paapa (father’s) whakapapa connects my whaanau to Ngati Ruapuha and Ngati Uekaha (subtribe, central North Island) includes Waitomo Caves Hangaatiki, Marokopa) (Figure 2 below and figure 3 on next page 13). This whenua (land) connects and links us with Waikato-Tainui history, through the land war confiscations. In addition, puuraakau of our people hosting Tuurongo and Mahinarangi on our whenua were handed down from generation to generation.

![Whakapapa o Ngati Ruapuha](image)

**Figure 2: Whakapapa o Ngati Ruapuha**

Sourced from: (Ruapuha and Uekaha Trust, 2018)
Figure 3: Whakapapa o Ngati Uekaha
Sourced from: (Ruapuha and Uekaha Trust, 2018)

My father comes from a large whaanau. He has eight brothers and five sisters a total of thirteen siblings. He grew up in Hangaatiki (near Waitomo caves, North Island) at a place called “Lees block” near Oparure and Hangatiki, Te Kuiti. This is where my grandparents Koro Koroaihi Tapara and Te Ruhi Huirama Osbourne raised my father and his siblings on this whenua, near Waitomo Caves, North Island. My whaanau own places belonging to our tuupuna linked to Ngaati Te Kanawa hapuu in near parts of this whenua block. Our whakapapa on my grandmother’s whakapapa connects us back to Waikato-Tainui.

My tuupuna (great-grandfather) was instructed by Kiingitanga movement to take care of the people in Marokopa following the land wars and confiscation of whenua. He married my tuupuna kuia (great grandmother) Rangitaea Huirama, where they lived in Hangatiki. My tuupuna, along with many whaanau from our hapuu were seen as loyal and dedicated people.
to the movement of the Kiingitanga. Puuraakau have been passed down about our hapuu hosting large crowds when they travelled to our whenua and awa. Kiingi Tawhiao lived amongst our Ngaati Maniapoto people and my tuupuna (great-grandparents and grandparents) would have been privy to, yet faced challenges at a time of struggle from war and land confiscations.

2.4 Taku hikoi rangahau (My Research journey)

I am currently employed as a Research Fellow for Taupua Waiora at Auckland University of Technology about whaanau violence. In 2012-2016, as a Researcher on the larger ICIHRP project I interview the 250 Maaori mother participants and their peepi in the Timata (immediate) and Tatari (delayed) groups about oranga niho. Subsequently, two significant HRC funded projects were undertaken in my position as a Project Manager, Te Puna Oranga Maaori Health services, Waikato DHB. They were 1) Oranga Taane Maaori (OTM) project and 2) Kaumaatua Health literacy on palliative care.

The OTM research team completed interviews with 62 men and their whaanau who experienced chronic illness such as diabetes, cancer, respiratory problems, and cardiovascular heart disease (Kidd, J., Gibbons, V., Kara, E., Blundell, R., & Berryman, K., 2013; Kidd, J., Gibbons, V., Lawrenson, R., & Johnstone, W., 2010). My role on the OTM project was to ensure Kaupapa Maaori principles and practices were adhered to throughout the research process and was one of three interviewers who interviewed the 62 Maaori men participants and their whaanau. A Master’s thesis in Public Health was completed at Auckland University entitled He Whatukura Koe! Kookiringa te wero! Maaori men with chronic illness koorero about late presentation, barriers and enablers for accessing health care in Waikato (Berryman, 2011).
On another hikoi (journey) I was privileged to work on a Kaumaatua and palliative care alongside researchers and health workers from Rauawaawa Kaumaatua Charitable Trust Maaori provider, University of Waikato, and Maaori providers within Waikato and funders Ministry of Health and Health Research Council. I made good friendships along the way and a final report of our research was published by the Ministry of Health and with other publications in International peer-reviewed journals (MoH 2018c; Oetzel, Berryman, & Reddy, 2015). In 2014, our research team presented at a conference held in Vancouver Canada. This current project with Waikato-Tainui oral health project subsequently followed my work at Waikato DHB.

2.5  Te wahi o te mahi nei (Location of the research for this thesis)

The research for this thesis is located in the heart of Waikato-Tainui. It is aimed at exploring the experiences of waahine Maaori in the RCT study for improving oral health for their peepi. It is envisaged that information from this study will be made available to those involved in reducing the oral health for tamariki/peepi/mokopuna in Waikato-Tainui and other iwi within Aotearoa New Zealand. My background experience in Maaori Health and Public Health provides me with the knowledge and experience to move into this field of oranga niho utilising a Kaupapa Maaori approach for Waikato-Tainui. I bring to this study my prior knowledge and whakapapa links to Waikato-Tainui. My community networks in Waikato-Tainui have allowed me to navigate this pathway of oranga niho among my own tribal iwi connections to Waikato-Tainui.
Chapter Three: Te Koorero Tuatoru - Literature review of Indigenous voices

Kootahi anoo te koohao o te ngira
E kuhuna ai te miro maa te miro whero
me te miro pango
A muri i a au kia mau ki te ture
ki te whakapono ki te aroha
Hei aha te ahal hei aha te aha!
Naa Potatau Te Wherowhero 1858

There is but one eye of the needle through which the white, red and black threads must pass.
After I am gone hold fast to the lore, the truth and love, foresake all else.
(Waikato-Tainui, 2018; cited in Pei Te Hurinui Jones, 2012)

Whakamaaramatanga (translation): The first Māori King Pootatau Te Wherowhero spoke these words at his koroneihana, he was speaking of all races coming to Aotearoa New Zealand and that we must all live, work together and get on together.

3.0 Timatanga (Introduction)

This literature review will set the context for the research about Indigenous women in the context of waahine Māori and their tamariki/peepi/mokopuna. Motivational interviewing (MI) and early childhood caries (ECC) are included. The search strategy provides an overview of the strategy used, followed by Indigenous voices and why there has been research indicating the strengths of Indigenous methodologies and MI within Indigenous populations, and how Indigenous and Māori voices are evident within the oral health literature, with relevance to MI and ECC.
3.1 Whai rautaki (Search strategy)

The electronic databases used to search the literature were EBSCO (Medline and CINAHL), Google Scholar, PubMed, Scopus, and Web of Science. Hand searching of reference lists of key relevant articles was also conducted. The following keyword search terms (and their synonyms) were used combined using Boolean operators: ("early childhood caries" OR "dental caries") AND (Indigenous OR First Nations OR Aboriginal OR Maori) AND ("Maori women" OR wahine AND Indigenous women) AND (experience OR attitudes OR voice) AND ("Indigenous research" OR "kaupapa Maori research" OR "Maori methodologies") AND ("western research methodologies" OR "randomized control trials") AND ("motivational interviewing").

Table 1 depicts the search strategy that was undertaken to explore the research question(s).

Table 1: Keyword Search Terms

<table>
<thead>
<tr>
<th>First Search</th>
<th>Combined for second search</th>
<th>Combined for final search</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Early childhood caries” or “dental caries” AND (Indigenous OR First Nation OR Aboriginal OR Maori) AND (Maori women OR wahine AND indigenous women)</td>
<td>(experience OR attitudes OR voice) OR (&quot;Indigenous research” OR “Kaupapa Maori research” OR “Maori methodologies”) OR (&quot;western research methodologies” OR “randomized control trials”)</td>
<td>“motivational interviewing”</td>
</tr>
</tbody>
</table>
Table 2 indicates the inclusion/exclusion criteria derived from the research question.

Table 2: Inclusion and Exclusion Criteria

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer-reviewed journal, Books</td>
<td>Other primary carers</td>
</tr>
<tr>
<td>English and Te reo</td>
<td>Children aged 5 years and over</td>
</tr>
<tr>
<td></td>
<td>Caries (general)</td>
</tr>
<tr>
<td></td>
<td>Non-Indigenous or not exclusively Indigenous</td>
</tr>
</tbody>
</table>

3.2 Ngaa koorero o iwi whenua i ngaa rangahau hauora raatoo (Indigenous Voices in Western Health Research)

This section outlines the literature about Indigenous voices in Western Health Research, in two parts: International Indigenous voices (section 3.2.1) and Maaori voices (section 3.2.2).

3.2.1 Ngaa koorero o iwi whenua o Te Ao (International Indigenous Voices)

Indigenous peoples experience differing yet common experiences and the approaches for improving health must be considered appropriately. Indeed, Indigenous voices are often missing. Indigenous peoples today are among the most disadvantaged and disenfranchised in the world (Anderson et al. 2006 cited in Tiwari, Jamieson, Broughton, Lawrence, Batliner, Arantes, & Albino, 2018). Through colonisation and patriarchal ideology, Maaori and Indigenous people’s stories and realities are often told by white male men and the other from their own worldviews and assumptions.
Linda Tuhiwai-Smith (2012) posits the western research ideologies:

Research through imperial eyes describes an approach which assumes that Western ideas about the most fundamental things are the only ideas possible to hold, certainly the only rational ideas, and the only ideas which can make sense of the world, of reality and social life and of human beings. (p. 58)

Tuhiwai-Smith (2012) referred to western practices and ideologies as ways of seeing Indigenous peoples lived realities as untruths. This means that colonisers were observers of Indigenous “truth” while Indigenous peoples continue to be dismissed of their lived realities and truths told by others (the colonisers) about them. There is a strong sense that Indigenous people need to tell their own truths and shared worldviews. Indigenous research methodologies and methods has meant that Indigenous people are more wary and used to being observed by other researchers.

Often Indigenous people have been silenced particularly Indigenous women and children who are invisible in the research, therefore unheard and hidden. The need to construct Indigenous realities requires Indigenous voices to be visible in research. Indigenous communities have long experienced exploitation by researchers and increasingly require decolonising and strength-based research practices and processes. Similarly, Sherwood and Kendall (2013) suggest decolonising methodologies acknowledges the importance of the iterative foundations of past, present and future to Indigenous peoples. Indigenous knowledge requires more careful consideration of decolonising and reclaiming Indigenous knowledge’s that provide positive benefits to Indigenous people.

Engagement with Indigenous peoples are relevant. The literature review indicated that favoured approaches included community-based participatory research (CBPR) approaches and decolonising methodologies. For example, a qualitative Canadian community-based
participatory research project which focused on the health and body image with First Nations girls in a Tribal Council region in Western Canada reported high inequalities experienced by Indigenous Canadian aboriginal peoples, impacted by the negative history of colonisation (Shea, Poudrier, Thomas, Jeffery, & Kiskotagan, 2013). The research team utilised a decolonising methodologies approach using a collaborative partnership approach to engage with the community. Photovoice was a way of decolonising the research and was seen as a highly favoured method (Shea et al., 2013). In the current study, the study utilises kaupapa Maaori methodologies and methods and the partnerships are collaborative between Waikato-Tainui partners, the College and RHoT alongside the parallel countries Canada and Australia, and the UoO. A Kaupapa iwi Maaori approach is presented in Chapter 4 Te Koorero Tuawha – Methodology and Methods.

Indigenous scholars have contributed towards critical theory, participatory action and Indigenous methodologies to enable Indigenous voice in research (Denzin & Lincoln, 2008; Dunbar, 2008; Kovach, Brown, & Strega, 2015). Studies about Indigenous women and children discuss poverty, incarceration or vulnerability (Sherwood & Kendall, 2013; Tsai et al., 2017; Denise Wilson & Neville, 2009). For example, Sherwood and Kendall’s (2013) Australian study about Aboriginal Mothers in Prison, named the Social and Cultural Resilience and Emotional Wellbeing of Aboriginal Mothers in Prison’ (SCREAM) project, utilised a decolonising methodological approach. They found culturally safe models of health care to meet Indigenous mothers needs in custody and for transition back into the community were relevant and the experts in the study are the women themselves; families, communities and service-providers are valued. From this study, the Indigenous Aboriginal mothers and their families and communities are empowered in the research. This is a strong message for researchers to enable participants to be the experts and have a voice which is meaningful and purposeful for them.
Another study about Indigenous Australian women (Walker, Fredericks, Mills, & Anderson, 2014) evaluated traditional Western methodologies. From these women's perspectives, they found this way of practice (western) inappropriate and ineffective to gather information and discussion. The result was to explore their own Indigenous methodology called yarning. Yarning is a conversational process that involves the sharing of stories and the development of knowledge. It prioritises Indigenous ways of communicating, in that it is culturally prescribed, cooperative, and respectful. The development of two types of yarning, family yarning and cross-cultural yarning emerged as a preferred methodology. Indigenous knowledge informs ways of doing things and allows Indigenous people to have a voice in the research.

A Canadian study about Métis, First Nations and Inuit women (“Aboriginal women”) by Jull, Stacey, Giles, and Boyer (2012) aimed to explore Aboriginal women’s health and social decision-making (SDM) needs and to engage Aboriginal women in culturally adapting an SDM approach. This study used participatory research principles and was guided by a postcolonial theoretical lens and mixed methods research. A research outcome was to produce a culturally sensitive intervention to facilitate SDM within a population of urban Aboriginal women to evaluate the impacts on narrowing health/social decision-making inequities. The researchers were active in the field and engaged with the community. They attending various cultural activities for women and children to help gain a deeper understanding and knowledge of the people providing and seeking services. The opportunities to meet with clients, Board members and work collaboratively with research partners increased the relationship and use of the “Ownership, Control, Access and Possession” (OCAP)\(^2\) principles.

\(^2\) OCAP principles identify and implement the inherent right of self-determination by Aboriginal communities within research studies, and are applicable to all stages of the research process.
3.2.2 Ngaa Koorero a Maaori (Maaori Voices)

Evidence suggests similar experiences of marginalisation as a result of colonisation have been imposed on all Indigenous people. The situation is the same for Maaori where colonisation has resulted in detrimental effects on health, education, housing, low incomes, poverty, racism and inequities as reported by (Robson & Harris, 2007) and subsequently oral health related quality of life (Robson et al., 2011, p. 29). Furthermore, Harris et al. (2006) suggests that interventions and policies to improve

Importantly, reiterating Linda Tuhiwai-Smith words, that there is a need to tell our own research Indigenous stories and narratives, the literature review found recent studies that address this issue. Maaori researchers leading kaupapa Maaori, Mana waahine and collaborative research team work alongside non-Maaori researchers.

In a Kaupapa Maaori philosophy study about Maaori maternities and motherhood, Gabel (2013) draws on Maaori and Indigenous theories, on Mana waahine legal theories and on Kaupapa Maaori theories. Gabel (2013) unpacks some of the specific legislative and policy initiatives introduced by the state that have served to undermine traditional Maaori maternities. Gable’s (2013) findings suggest that Maaori maternities have survived through colonisation process and continue to be a site of resistance and empowerment for whaanau Maaori. The idea of Tino Rangatiratanga (empowerment, leadership) and whaanau approaches to Maaori maternities and Maaori motherhood help to reflect on traditional Maaori philosophies of mothering.
In Gable’s writings and reflection of Leonie Pihama’s work, she suggests that:

Mana wahine theory is thus an assertion of our tino rangatiratanga as Maori women; an assertion of our right and absolute authority to determine our own destinies, to analyse and to critique, to reassert, reclaim and rewrite. (p.41)

Mana waahine studies provide evidence of historical trauma within the context of Maaori women and their whaanau. The historical trauma effects generations of Maaori as tangata whenua (owners of land), who have experienced ongoing cultural and ethnic marginalisation, in colonizing contexts (Hall, 2015; Le Grice & Braun, 2016; Mikahere-Hall, 2016; Robson & Harris, 2007) which in effect results in the poor health outcomes including poor oral health status for Maaori tamariki and mokopuna (Koopu 1998; Koopu, 2005; Robson et al., 2011). Through colonisation, Maaori women’s voices have been marginalised and defined by “others”. In order to counteract the telling of stories from “others” there has been an upsurge of Maaori scholars reclaiming and reshaping negative portrayals of Maaori women (Gabel, 2013; Le Grice & Braun, 2016; Lee, 2009; Lee & North, 2013; Mikahere-Hall, 2016; Murphy, 2011; Simmonds, 2011; Simmonds, Robson, Cram, & Purdie, 2008; Tuiiawai-Smith, 2012). This negative reporting has been captured in our negative statistics, and as Simmonds (2011) states these untruths have been told “by non-Maaori men but also by others, and has been defined predominantly in negative terms.” The current study will ensure Maaori women are centred within the research.

Maaori health and address issues around equity should align with encouraging positive employment opportunities, a quality education system and an increase in participation in the economy (cited in Pohatu, 2015). The diversity of Maaori population poses a challenge to policy makers seeking to understand Maaori identity for the purposes of interventions which support Maaori development (Houkamau & Sibley,
Diversity of Māori involve the dynamic whaanau (family and extended family) structures, and particularly Māori women and children. Māori women feature negatively in statistical data. Wilson (2008) noted that Māori women, like many other women, hold important roles in maintaining the health of their children and whaanau. They are referred to as the kaitiaki (guardians) of whaanau health and wellbeing (Public Health Group, 1997 cited in Wilson, 2008). However, Māori experience inequalities in health status and health outcomes when compared to other groups within Aotearoa New Zealand. This is a similar situation for the Indigenous peoples of Australia, Canada, America and Hawaii (Anderson et al., 2006), and is related to histories of colonisation that have contributed to their contemporary socioeconomic disadvantage, unhelpful stereotypes, and racism, all negatively impacting on the health of individuals and communities (D. Wilson, 2008).

Health determinants extend beyond genetics and disease processes to include factors such as socioeconomic deprivation, ethnicity and race, colonisation, and racism, all reasons for differential access and use of health services by Indigenous peoples (Ibrahim, Thomas, & Fine 2003; Reid & Robson 2006).

Pohatu (2015) kaupapa Māori study is about understanding why Iron Māori, a popular community health initiative for Māori and non-Māori people of all fitness levels, has led to Māori and non-Māori choosing to make significant lifestyle changes through Iron Māori. The Kaupapa Māori methodology was employed to allow the voices of Māori people to be heard whilst adhering to Māori philosophies. Five principles of Kaupapa Māori Theory were essential to the research: Tino Rangatiratanga; (Self-determination); Taonga tuku Iho (Cultural Aspiration); Kia Piki Ake I Ngā Raruraru O Te Kainga (Socio-economic
mediation); *Whaanau* (Extended family structures) and; *Kaupapa* (Collective Philosophy). Ten Iron Maaori participants were interviewed kanohi-ki-te-kanohi and a combination of inductive and deductive analysis techniques were used. Successful Indigenous frameworks for Indigenous health promoters can help encourage healthy lifestyles (Pohatu, 2015). Kaupapa Maaori methodology allowed the voices of whaanau to be heard. The current study will allow Kaupapa Maaori approaches in the research.

Makowharemahihi et al. (2014) used a kaupapa Maaori approach involving 44 pregnant Maaori women under 20 years. In this study, they found participants were engaged early with health care services and barriers to access happened at the first contact with lack of information, and support along the maternity care pathway. Young Maaori women received both positive and negative experiences of their maternity care. The findings were contrary to published literature young Maaori women are engaging early with health services for GP services, or a school or community based youth health services for maternity care. The study found a lack of sufficient and appropriate information and support for this young population group who have limited resources and experience to navigate through health services. The successful use of Kaupapa Maaori approaches enabled these women to have a voice in the research.

A unique hapuu study involved (Tinirau, Gillies, & Tinirau, 2011) hapuu, kaumaatua and kuia located in Wanganui, Aotearoa New Zealand. They adopted Maaori methodological frameworks: Te Kohao o te Ngira and Koriporipo which gave a localised Maaori worldview approach to the research. Hapuu researchers were descendants of the hapuu and had affiliated ties to the whenua and community. The value of kaanohi-ki-te-kaanohi allowed a culturally appropriate way to engage with whaanau participants. The authors suggest that having a Maaori worldview was essential to the research and allowed a growth of Maaori knowledge from Maaori elders who were concerned about the youth in their region. This
Wanganui study was unique because elderly kaumaatua and kuia voices were captured by hapuu researchers. The study raises the importance of kanohi-ki-te-kanohi interviews and the enhancement of Maatauranga Maaori (Maaori knowledge).

3.3 Ului me toitoi manawa e rangahau hauora i ngaa taupori iwi whenua (Motivational Interviewing in Health Research in Indigenous populations)

This section outlines the literature about Motivational Interviewing in Health Research in Indigenous populations, in two parts: International 3.3.1 and 3.3.2 Maaori.

3.3.1 Ngaa kaupapa o Te Ao (International Setting)

Motivational Interviewing (MI) is well evidenced in Indigenous populations (Miller & Rollnick, 2013; Miller et al., 2008). MI was first introduced to tackle the most difficult-to-change behaviours - substance abuse - and was later used to treat a broad range of lifestyle problems, such as eating disorder, lack of physical exercise, and poor adherence to medication regimens (cited in Gao, Lo, McGrath, & Ho, 2013). MI has a growing support for delivering the strategies and principles for changing ambivalence (Miller & Rollnick, 2013).

MI strategies include: OARS acronym (open-ended, affirmation, reflective, summaries), rolling with resistance, change talk and sustain talk (Miller & Rose, 2009), the use of the MI ruler (measures confidence and importance from a scale 0-10) and the MI spirit (Miller & Rollnick, 2013). Another MI strategy is OARS: Open questions, Affirming, Reflecting and Summarizing (Miller & Rollnick, 2013).
Table 3: OARS approach

<table>
<thead>
<tr>
<th>Open Questions</th>
<th>Elicit crucial information that may not be gathered from closed questions. Cannot be answered yes/no. Allows patient to tell their story.</th>
<th>Instead of asking &quot;Are you in pain?&quot; they could be asked &quot;How do you feel?&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affirmations</td>
<td>Statement of appreciation. &quot;That's great you lost 4kg&quot;, &quot;I am impressed by your commitment&quot;.</td>
<td>Reflection from AHP – &quot;So all of this seems normal to you.&quot;</td>
</tr>
<tr>
<td>Reflection</td>
<td>Understanding what the patient is thinking and feeling and saying it back to the client. Statements not questions.</td>
<td>Patient – &quot;I've been this way for so long.&quot;</td>
</tr>
<tr>
<td>Summaries</td>
<td>Longer than reflections. Used for highlighting both sides of a patient’s ambivalence; provide recap to ensure understanding, transitions from one topic to another.</td>
<td>For a patient trying to lose weight – &quot;You have several reasons for wanting to lose weight; you want to interact with the kids more, you want to be healthier. On the other hand, you are worried about the hassle and time consumption of the process, and worry if you’ll have the motivation to adhere to it. Would that sum it all up?&quot;</td>
</tr>
</tbody>
</table>


The OARS approach is applied to help with the four stated above strategies: engage, focus, evoke and plan. The current study will look at how MI will be adapted using a Kaupapa Maaori approach.

**MI spirit**

An essential element of MI is the MI spirit. The MI spirit is the most important fundamental of MI (Miller & Rollnick, 2013) and comprises of four principles: 1) collaboration (partnership), 2) acceptance, 3) compassion and 4) evocation. (See Figure 4 on next page 28).

1) **Collaboration (partnership)** is the MI spirit. It entails the respect one has for the other. A connection or partnership between the person being interviewed and the interviewer must be made in order to establish and underlying MI spirit. A two way process between both parties is required. Without partnership MI cannot happen.
2) Acceptance is about accepting a person’s current state and being non-judgemental. Acceptance has four aspects: absolute worth, accurate empathy, autonomy support, and affirmation (Miller & Rollnick, 2012).

3) Compassion is genuine respect and trust. Compassion is actively promoting the other’s welfare.

4) Evocation is about bringing out what is already in a person. The MI spirit sets the foundation of how the MI interview will take place and without these four principles, the MI spirit does not happen.

For the current study, the MI spirit will support the MI sessions with Indigenous Maaori women voices, but be adapted to Kaupapa Maaori tikanga (customary practices) and approaches.

Figure 4: The underlying spirit of MI
Source: Adapted from (Miller & Rollnick, 2013, pp22)
Two studies, by Miller and Rollnick (2013) and Venner, Feldstein, and Tafoya (2007) suggest MI interventions do work to change behaviour within Indigenous populations. In support of MI acceptability, Miller and Rollnick (2013) reported about the cross cultural adaptability of MI and cuts across languages. In a study by Venner, Feldstein, and Tafoya (2008) MI was used by Native American communities to change behaviour and was culturally accepted as an approach. MI was developed through communities’ reflective feedback and amendments with the outcome of an intervention manual to help improve the accessibility of MI within Native communities. Treatment providers were enthusiastic about the adapted manual to help in their practice. For the current study, the adaption of MI to Kaupapa Maaori will be considered.

In an Australian study (MacLean, Harney, & Arabena, 2015) about the use of methamphetamine amongst some Australian Indigenous peoples was conducted. MI was used to support best practice responses by primary health-care staff working with Australian Indigenous people who use methamphetamine. Community-driven interventions involving Indigenous populations in Australia appeared to have a high level of community acceptance and a strength-based approach to addressing the health issue. For the current study, MI is a way to engage with Indigenous Maaori women about their experiences of oral health for their babies.

Similarly, a study about Native Hawaiian and Pacific Island study, (Braun et al., 2015) found that motivational interviewing was an approach that was more successful than other interventions. The researchers identified two critical interview skills involving listening and delaying judgement which are essential techniques for MI. The MI approach allowed problem solving opportunities for clients to share their issues and to contribute towards solutions, goal setting and accountable for behaviour change. Other accepted models of health were suggested in this study, however
MI was seen as an effective approach for communication style compared to a lecturing style which is unfavourable with Native Hawaiian people. The current study, utilises MI which is adapted to a Kaupapa Maaori approach.

3.3.2 Ngaa kaupapa a Maaori (Maaori Setting)

The literature about Motivational Interviewing and Maaori, revealed work in the area of smoking cessation (de Bruin, 2015), and counselling (Britt & Blampied, 2010; Britt, Gregory, Tohiariki, & Huriwai, 2014). There is a paucity of MI research in Aotearoa New Zealand compared to international evidence produced in the literature. However, the work is increasing, where work has been done to bridge the gap between MI and Kaupapa Maaori research. In Britt et al. (2014) work about MI and Kaupapa Maaori philosophy, the authors defined four key tikanga principles of “whakawhaanaunga (engage), maramatanga (understanding, enlighten); kanohi-ki-te-kanohi (partnership) and manaakitanga (caring)”.

Whakawhaanaunga is “engagement and connecting”; Maramatanga is “to seek clarity and helping whaanau come up with solutions through their thoughts and feelings about making change”. Kanohi-ki-te-kanohi is about “partnership and not being the expert talking down to the whaanau member” and manaakitanga helps the whaanau to seek change when they are ready and not when the other person wants them to change and Manaakitanga is about respecting and caring.

The tikanga principles align to MI principles of “partnership, collaboration, acceptance and respect.” These Maaori tikanga principles are relevant to engaging with Maaori utilising MI which is seen as conducive for individuals and their whaanau. For the current study, the adaption of MI is relevant and localising the context to Waikato-Tainui is appropriate.
A diabetes study, Te Wai o Rona: Diabetes Prevention Strategy utilising motivational interviewing involved Maaori community health workers (MCHW) within the Waikato DHB and Tuwharetoa, Lakes DHB region. The MCHW’s were trained to deliver Motivational Interviewing (MI). An intense recruitment strategy to recruit Maaori participants on to the programme was undertaken for the project.

The MCHW trainer was actively engaged in the initial stages of the research and helped by delivering workshops about access to healthy food and physical activity and behavioural change. The MCHW intervention was seen as the key to the intervention activities. A latter study, discussed the challenges of the Te Wai o Rona project from a Maaori cultural perspective (Blundell, Lillis, & Gibbons, 2010).

3.4 Koorero o iwi whenua o Te Ao i ngaa rangahau hauora oranga niho (Uiui me Toitoi manawa me oranga niho tamariki) Indigenous Voices in Oral Health research (including MI and ECC)

This section outlines the literature about Indigenous Voices in Oral Health Research (including Motivational Interviewing (MI and ECC) in two parts: 3.4.1 international voices and 3.4.2 Maaori voices.

3.4.1 Koorero o iwi whenua o te Ao (International Voices)

This section of the literature review looks a selected relevant peer-reviewed articles between a five-year period from 2013-2018 (recent to 2013).

A recent literature review study by Tiwari et al. (2018) was conducted about oral health interventions including countries from United States, Canada, Brazil, Australia, and New Zealand. They found that Aotearoa New Zealand search strategy, no New Zealand studies appeared because
none had yet been published (p.184). However, they claim that the work of Broughton et al., (2013) did fit their criteria (of which is an outcome of the ICIHRP project in this study). They commented that Broughton et al., (2013) was the only publication that had an intervention and the primary findings yet to be published. (p.874). The authors’ commented:

MI was seen to be consistent with the cultural values of Indigenous people, and MI techniques respect the sovereignty and self-determination of the individual tribe (Tomlin et al. 2014 cited in Tiwari et. al, 2018, p.874).

In this literature review, Broughton et al, (2016) Tikanga Māori (Māori Customary Practices) in Oral Health Research and Broughton et al, (2014) Ukaipo niho: the place of nurturing for oral health are included in as an outcome of the larger ICIHRP project. This is presented in the next section Maaori (3.4.2)

In Australia, ICIHRP related article by Jamieson (2016), assessed the fidelity of MI. Aboriginal mothers were interviewed using MI intervention by four MI trained staff. Mean scored were collated against MI principles of evocation, collaboration, autonomy/support, direction and empathy. The authors concluded that Beginner to expert competency in fidelity to the MI model was observed.

In USA, Batliner et al., (2016) conducted a study involving six hundred mothers or caregivers of new born American Indian (AI) infants and young AI children in United States. This study was a RCT study for a 2-year period which underwent challenges with recruitment and retention due to geographic location barriers. MI appeared to be culturally appropriate for the Indigenous community. The study’s protocol was seen as a unique model for oral health interventions using principles of community participatory research. This study is useful in that MI was applied to an Indigenous community to help reduce ECC disparities. Other oral health relevant studies of Indigenous oral health during the period 2016 and 2017 were found (Smylie et al., 2016; Schuch et al., 2017 Tsai et al., 2017).
Two qualitative studies about breastfeeding and traditional infant feeding were found (Cidro, Zahayko, Lawrence, McGregor, & McKay, 2014; Cidro et al., 2015). The Cidro et al. (2015) study explored cultural based practices engaging with older First Nations women participants through interviews and focus groups. It was identified that cultural based practices were used to promote healthy infant feeding and good oral health. Three themes were breastfeeding attitudes, social support for mothers and birthing and supporting healthy infant feeding through community programs. The authors concluded: The importance of understanding cultural health traditions was seen as essential for those working in oral public health capacities to ensure there is community acceptance of the interventions.

Prior, the Cidro et al’s. (2014) study suggested that traditional infant feeding knowledge was seen as valuable to the research and intergenerational knowledge transfer. Three traditional practices emerged about culturally based childrearing practices and related to infant oral health: 1) feeding infant’s country food; 2) infant traditional medicine and 3) the practice of swaddling and other thermal regulation practices. The practice of cultural health traditions was seen as relevant to Indigenous women.

A First Nation’s study (Naidu et al., 2014) found that general knowledge of oral hygiene was considerable among parent and child participants. The study indicated that knowledge alone was not sufficient to motivate changes in oral health practices and that a there were assumptions that Indigenous people were not motivated, therefore “notion of ‘laziness” were seen as a common barrier to oral health.

MI was introduced into the Indigenous community to help increase behavioural change to help parents with child oral hygiene practices.
Counsellors interacted with Indigenous communities and the acceptance of MI by parents was due to the non-confrontational nature of counsellor-parent making goals to improve child oral health.

3.4.2 Ngaa Koorero a Maaori (Maaori Voices)

A relevant recent oral health article for Aotearoa New Zealand found in the literature is Tikanga Māori (Maaori Customary Practices) in Oral Health Research by Broughton et al. (2016) related to Maaori women in the larger oral health research study in Aotearoa New Zealand.

Broughton et al, 2016 Tikanga Māori (Māori Customary Practices) in Oral Health Research discusses the importance of tikanga Maaori cultural practices. The four principles of the Te Whare Tapa Wha for Maaori health and well-being. Indigenous customary practices must be considered as a critical part of the research process. The authors suggested that health research projects with Indigenous populations must embrace Indigenous cultural practices.

In Aotearoa New Zealand, Maaori leadership is relevant for the success and benefit of Indigenous outcomes. Previous work by Broughton et al, 2014 Ukaipoo niho: the place of nurturing for oral health was one of the first publication outputs from the larger ICIHRP project. They concluded that: Mothers’ important role in nurturing the well-being of the young child includes the protection and maintenance of the growing child’s oral health (or uukaipoo niho). The findings provide important insights into Maaori mothers’ oral health knowledge, beliefs and practices (p.1).

Durie’s (1994) Maaori health model Te Whare Tapa Wha, proposes four dimensions of taha whanau, taha wairua, taha tinana and taha hinengaro. The Te Whare Tapa Wha model is an appropriate framework for oral health research as it is a widely accepted model for Maaori and Indigenous people. Durie’s (2004) modern health promotion model Te Pae Mahutonga draws upon principles of health promotion: Mauriora (cultural
identity), Waiora (physical environment), Toiora (healthy lifestyles), Te Oranga (participation in society), Ngaa Manukura (community leadership) and Te Mana Whakahaere (autonomy). Thus, Indigenous customary practices are considered invaluable when conducting research in and within Indigenous communities. Indigneous research and knowledge must consider Indigenous customary practices.

Charrissa Makowharemahihi et al. (2016) reported about the significant inequalities for Maaori children. They states that the health inequalities in Aotearoa/ New Zealand must be understood in context of the Treaty of Waitangi. Therefore there is an obligation under the Treaty for the Crown to action the principles of partnership, participation, and protection to ensure that Maaori people enjoy the same level of health as non- Maaori people. Successful Maaori voices in oral health adopt Maaori methodological approaches.

This is mentioned by the same authors, in which embracing Te Ao Maaori (Maaori worldview) and Durie’s (1998) Te Whare Tapa Wha (a holistic model of health and wellbeing) was essential for the research. The Te Whare Tapa Wha forms four dimensions: Te taha wairua (spiritual), Te taha Hinengaro (thoughts, mind), Te taha whaanau (family), and Te taha tinana (physical) and is well recognised in Ministry of Health (MoH, 2018d) and Maaori oral health literature (Hudson, 2004; Ratima, Edwards, Crengle, Smylie, & Anderson, 2005; Te Amo, 2007).

There are many other developed Maaori models of health that provide holistic ways of health promotion and improving health outcomes for Maaori. All four elements of Te Whare Tapa Wha together are essential for good health and well-being (Broughton et al., 2016, p. 103). Thus, Maaori have a holistic view of health and wellbeing and the Te Whare Tapa Wha is universally accepted and culturally appropriate for Maaori.
Durie stated that, Maaori, the Indigenous peoples of New Zealand, believe that a positive and holistic ‘people focus’ is an essential foundation for wellbeing (Durie 1984 cited in Lambert et al., 2014). Essentially, people, people, people are important in the research. For this current research, the research participants are Maaori women who have a voice in the research.

Previous oral health studies also indicate why Maaori mothers are centred in oral health research. In the Uukaipoo article (Broughton et al., 2014), the authors noted that “Maaori mothers play the key role in the oral health of their children (Murchie, 1984), and this was reiterated by Dyall (1997), who stressed the crucial role of Maaori women as fundamental agents of change in shaping the behaviour and values of the next generation (cited by Broughton et al., 2014).

The Ngaati Hine Health Trust and Hokianga Health in Northland and Tipu Ora Charitable Trust in Rotorua are actively providing services for young Maaori mothers and tamariki requiring oral health needs. Maaori health providers deliver services which meet the demand for culturally based and tikanga Maaori/kawa service delivery for Maaori by Maaori.

3.5 Positioning this research and giving voice to Indigenous Maaori.

To give voice to Indigenous peoples can only happen if the research is inclusive of Indigenous people having input in the research. Indigenous research requires careful consideration given the socioeconomic situation and historical trauma that have impacted on all Indigenous populations.
The combination of the all three elements, Motivational Interviewing, Maaori child oral health and Kaupapa rangahau Waikato-Tainui using TNT approach and interventions that are accepted by Maaori is unique.

Preliminary studies as mentioned in the literature review have described all three themes. However there still exists an absence of literature addressing the effectiveness of MI in reducing the prevalence of oral health disease in an iwi setting. MI is one intervention that appears to work to improve health outcomes, in turn reducing inequalities in ECC for Indigenous children.

3.6 The Research Question(s):

This thesis explores the following questions as mentioned earlier in Chapter One (p.1).

- What were the experiences of waahine Maaori of a randomised control trial to improve the oral health of their peepi (baby, babies)?
- What was the knowledge of, attitude toward, and practice of waahine Maaori for the oral health for their peepi?
- Were waahine Maaori able to express their experiences and understanding within kawa/tikanga Maaori?

By exploring these above questions, there is potential to understand better what culturally appropriate interventions work for Indigenous people when reducing oral health disease and where Indigenous voices are heard.
3.7 Whakaraapopoto (Summary)

This current study will look at a Waikato-Tainui approach to oral health for women and children as little is known about waahine Maaori experiences and their peepi oranga niho. To date, there is little research about the experiences of waahine Maaori and peepi within a Randomised control trial (RCT) study. The introduction of Motivational interviewing (MI) in oral health or early childhood caries studies is significantly unique to Aotearoa New Zealand. There is indeed opportunity for future research in this area. The research literature is missing qualitative information about what have been the experiences of waahine Maaori in the RCT study to help improve oral health for their tamariki/peepi/mokopuna.
Chapter Four: Te Koorero Tuawha – Methodology and Methods

He Piko He Taniwha
He Piko He Taniwha
He Piko He Taniwha
Taniwharau!

At every bend there is a taniwha
(Waikato-Tainui, 2018; also cited in Te Aho, 2010).

Whakamaaramatanga (translation): This Waikato-Tainui taonga tuku iho translates as 'at every bend there is a taniwha (guardian)'. There are many taniwha in the Waikato awa (Waikato River). There are taniwha or chiefs located at every bend of the awa - at every bend is a Taniwha or chief.

4.0 Timatanga (Introduction)

The above whakatauki depicts unity of the people. This chapter outlines the methodological framework that was used for this study, the reasons why this approach was used and the methods using a Kaupapa Maaori (a Maaori philosophical) approach. Similarly, metaphorically represented is the Waikato awa (river) the methodology is entangled in the essence of the river through its bends and swirls and passes along places of significance, whenua and destinations. The awa is spiral, mystical, mysterious and unrelenting. Kaupapa Maaori theory is the methodological framework which provides an overview of three strands of Kaupapa Maaori methods, and is described in section 4.2. Section 4.3 describes the study design, the recruitment, data collection and analysis, and ethics.
4.1. Rangahau Kaupapa Maaori (Kaupapa Maaori theory)

This study uses a qualitative Kaupapa Maori research (KMR) approach to understand how waahine Maaori experience oranga niho for their peepi. The qualitative research design provides a KMR methodology woven within Te Ao Maaori (Maaori philosophical views) and Maatauranga Maaori or the transfer of knowledge to another. KMR places Indigenous Maaori worldviews in the centre of the research, which goes against colonisation and western ways of knowing (Kidd et al., 2013). Successful KMR enables Maaori to have voice and involvement in the whole research process. Three Kaupapa Maaori approaches will be used to address and answer the research questions of this thesis (see previous Chapter One and Three).

Three KMR philosophical view approaches or strands are utilised:

- A Kaupapa iwi framework TNT (Maaori oral health framework);
- Puuraakau (oral traditional story-telling); and
- Mana waahine (Philosophy, self-determination) theory.

Research by Maaori, for Maaori and with Maaori have been validated as essential for Maaori involvement (Smith, 1995 cited in Henry & Pene, 2001). KMR is a way of retrieving space for Maaori voices, methodologies and analyses, whereby Maaori realities are seen as legitimate (Cram, McCreanor, Smith, Nairn, & Johnstone, 2006). KMR creates space for meaningful and truth of lived realities for individual, whaanau and Maaori communities. Qualitative research allows knowledge transferability and new ways of “social phenomena”, using both inductive or deductive ways to analyse the data or relevant information obtained (Pope, Ziebland, & Mays, 2000, p. 114). For this current study, the participants are Maaori and we will explore the experiences of waahine Maaori within an iwi tribal setting.
The study design will embed KMR principles defined by Tuhiwai-Smith (2005) as essential when conducting research with Maaori people:

• Aroha ki te tangata (a respect for people);
• Kanohi kitea (the seen face, present yourself face to face
• Titiro, whakarongo...korero (look, listen...speak);
• Manaaki ki te tangata (share and host people, be generous);
• Kia tupato (be cautious)
• Kaua e takahia te Mana o te tangata (do not trample over the Mana of the people;
• Kaua e mahaki (do not flaunt your knowledge. (p.120)

The value of kanohi kitea (seen face) is relevant in kaupapa Maaori research. Hlrini Moko Mead (2003) explains that He kanohi I kitea as a face seen is about “making an effort to visit and be seen at the marae is appreciated. This adds a meaningful social dimension to the presentation [koha] and emphasises the seriousness of the process of gift giving [offering of koha] (p.189).

In 1997, Graham Hingangaroa Smith described Kaupapa Maaori theory as both theory and transformative praxis that contribute to six kaupapa Maaori principles include: Tino Rangatiratanga (self-determination), Taonga Tuku Iho (cultural aspiration), Whaanau (extended family structure), Kaupapa, Ako Maaori (culturally preferred pedagogy), and Kia piki ake i ngaa raruraru o te kainga (socioeconomic mediation). Smith (1997) denotes these principles:

• Tino Rangatiratanga (The self-determination principle) – reinforcing the goal for Maaori of seeking more meaningful control over their lives and wellbeing.
• Taonga Tuku Iho (The cultural aspiration principle) – asserting the position that being Maaori is valid and taken for granted as the norm.
• Whaanau (The principle of extended family structure) – acknowledges the necessary contribution to Maori advancement, of Maaori cultural structures involving extended family and collective responsibility.
• Kaupapa (The principle of collective philosophy) – initiatives are held together by shared common philosophy or “Kaupapa”
• Ako Maaori (The principle of culturally preferred pedagogy) – promotes ways of knowing and learning that are uniquely Maaori.
• Kia piki ake i ngā raruraru o te kainga (The principle of socio-economic mediation) – addresses collective ability to intervene successfully despite negative pressures of Maaori socio-economic disadvantage.
The above principles are foundational for each person adopting Kaupapa Maaori research in ways which seeks to explore and understand Maaori ways of doing things, through everyday activities. In this study the participants are central to the study and are considered the essence of what makes this research possible.

KMR methodology is a validated and legitimate approach to conducting research that is for, by and about Maaori. KMR supports tikanga Maaori, te reo Maaori (Maaori language) and tino Rangatiratanga which honours the rights for Maaori to participate and take control over their own research (Tuhiwai-Smith, 2005; Walker, 2006). Kaumaatua are also seen as kaitiaki for research. They are the holders of cultural knowledge in Te Ao Maaori and tikanga Maaori.

For the current study, this extended support by a Kaumaatua is invaluable in the research, to allow support in the adherence of Waikato-Tainui kawa and tikanga. A whaanau tautoko roopu was established at the onset through the researchers own networks and work place at the College. The existence of kaumaatua will be essential for the guidance for the researcher to have space to koorero [speak] about situations that may occur in the study.
KMR theory is a consistent way of recognising being Maaori as it places Maaori central to the research (Kidd et al., 2013). Pihama, Smith, Taki, and Lee (2004) have highlighted the importance of Te reo me onaa tikanga Maaori as being central to KMR. It is relevant for researchers and research teams which provide critical accountability for Maaori.

In 1997, Graham Hingangaroa Smith described KMR theory as “both theory and transformative praxis”, Ako Maaori, and Kia piki ake i ngā raruraru o te kainga. Smith, (1997) denotes these principles: Tino Rangatiratanga, Taonga Tuku Iho, Whaanau, Kaupapa, Ako Maaori and Kia piki ake i ngaa raruraru o te kainga. These principles are intrinsic and interrelated components of KMR and are embedded as a way of making sense of Te Ao Maaori.

KMR principles, values and concepts ensure robust legitimacy and validity of Te Ao Maaori. Smith’s work sets a precedence to KMR theory, with the six principles as being recognised as legitimate and valid within KMR and for Maaori and indigenous scholars practicing KMR.

The KMR methodological approach in the current study is appropriate because the researcher is Maaori, the research participants and/or peepi are Maaori, and the Kaupapa is Maaori.
4.2 TNT (Iwi Kaupapa Maaori conceptual framework)

The TNT is an iwi Kaupapa Maaori conceptual philosophical view which provides the foundation for cultural integrity and robustness for the current study. Consistent with findings by Maaori authors such as (Cram et al., 2006; Tuhiwai-Smith, 2012) and other Indigenous authors Indigenous models is that the real voices of indigenous people are heard. The Kaupapa Maaori philosophy is unique and central to the success of a research. The value of Kaupapa Maaori research and other indigenous peoples’ research methods which give them a clearly heard voices is powerful and unique.

It symbolises a Waikato-Tainui approach to understanding nine key principles (Figure 5 below). The TNT provides a tribal Maaori lens for puuraakau of waahine Maaori experiences about their tamariki/peepi/mokopuna oral health and wellbeing. The nine key principles for TNT are: Kiingitanga, Waikatotanga, Hinengaro, Wairuatanga, Whakapapa, Mana, Whaanaungatanga, Mauri and Taha Tinana.

In this current study, the TNT model has been adapted for Oranga niho kaupapa for tamariki/peepi/mokopuna.

Figure 5: Te Niho Taniwha - Waikato-Tainui
4.2.1. Kiingitanga (Chieftainship or self-empowerment)

The Kiingitanga is chieftainship or self-empowerment. Broughton et al. (2013) explains that, “The Kiingitanga is the overarching niho of TNT and is especially significant to Waikato-Tainui people. The Kingitanga “alludes to the pan-tribal movement that was established in 1858 which sought to unite tribes around New Zealand and which Waikato-Tainui retain guardianship of” (Broughton et al., 2013, p. 5). This element of Kiingitanga sets the context of Waikato-Tainui for this research that involves maama (mother) and peepi (babies) enabling holistic tribal health for whaanau and their tamariki/peepi. Kiingitanga allows mothers in this research study to share their lived realities and truths about oranga niho within their whaanau structures and communities. The positive outcomes are ways in which Kiingitanga is a reflection of the past, present and future for the reduction in childhood caries within Waikato-Tainui as an iwi leader for its Maaori people.

4.2.2. Waikatotanga (Identity and location)

Waikatotanga is about identity and location. Broughton et al. (2013) suggests that, Underneath the Kiingitanga is Waikatotanga. In this example, Waikato-Tainui tribe and is located there primarily to remind us of the past and to ensure that we keep to the cultural practices of Waikato-Tainui. Its location underneath the Kiingitanga is also a reference to the role of the tribe as guardians of the Kiingitanga, which reinforces the importance of keeping hold of tribal cultural practices. This element is essential when undertaking research with whaanau participants in Waikato-Tainui. In the current research, mothers will be potentially recruited within the Waikato-Tainui boundaries and who are interested in sharing their knowledge of their experiences of oral health for their peepi. Traditional cultural practices and beliefs are critical in understanding the people of the Waikato-Tainui, its tribal context and the importance of the Kiingitanga. Waikatotanga means involving waahine Maaori and their
whaanau to become the leaders of practicing good oral health practices for their tamariki and mokopuna in healthy whaanau environments so that ECC is reduced among the intergeneration of Waikato-Tainui tamariki/peepi/mokopuna.

4.2.3 Hinengaro (Mind)

The notion of Hinengaro (mind) relates to a person’s mental state. Hinengaro is about the mind, thoughts, feelings and behaviours. Hinengaro are thoughts, feelings and behaviours. In the context of oral health, Hinengaro is about the mind and willingness to change, or fear of visiting a dentist which sometimes conjures up feelings of anxiety. Another example of Hinengaro is the desire to want to change behaviour for improving oral health.

Durie (1994) stated that “Taha hinengaro is about the expression of thoughts and feelings” (p. 71). Participants are valued in this current research for their experiences and knowledge. Hinengaro therefore is critical for understanding an individual’s emotional state and feelings. In this study, the Hinengaro is about the respect for knowledge and experiences about oral health of tamariki and mokopuna, which are central to the study. Participants will become leaders for tamariki and mokopuna about oral health hygiene at home, in schools (kohanga reo and wharekura) and environments where whaanau access health care services and access to oranga kai (food).
4.2.4 **Wairuatanga (Spirituality, spiritual essence)**

Wairua is spirit. Spirituality is a complex extension of the spirit. Wairuatanga is spirituality. It is a very complex and complicated concept with various meanings depending on the context in which it arises. In essence it is about spirituality but has very wide connotations. Durie (1994) cited that “Taha wairua is generally felt by Maaori to be the most essential requirement for health. It implies a capacity to have faith and to be able to understand the links between the human situation and the environment” (p. 71). Participants’ examples of wairua narratives and puuraakau provide more insight into the health and care of their oral health and wellbeing of tamariki/peepi/mokopuna. Often mothers are active in their roles to raise young tamariki and this current study makes reference to how wairua plays a part in their lived realities.

In her thesis Pihama (2001) makes reference to Rose Pere about the relevance of wairua to the spirit of Te reo Maaori (cited by Pere, 1999, p. 116&117). She further explains that the principle of wairuatanga has significant meaning and should not be limited to the definition of spirituality. The significance of wairua can be imparted in te reo language. In this study, interest in wairua can be understood through te reo as a specific catalyst to the peepi’s development and introduction to Te Ao Maaori, and giving meaning to whakapapa, and cultural identity of the whaanau and Maaori community in which the child is being raised.

4.2.5 **Whakapapa (Genealogy)**

Whakapapa is dynamic and connects Maaori people to their cultural identity. Whakapapa educates the next generation about their genealogical connections to their tuupuna, whakapapa is not about just one generation, but goes through and extends wider to whaanau, hapuu and iwi. For example, one can connect into many whaanau, hapuu, and iwi even when they are not living in the rohe or tribal areas.
Kaumaatua are seen to be the holders and knowledgeable retainers of whakapapa knowledge. They are able to link the individual into their whakapapa links through knowledge of the name of a person tribal connections or roots. Whakapapa is often extended beyond the defined spaces of genealogy and ancestry. Whakapapa can be made broader, linking the peepi back to their tuupuna and cultural inheritance, even to the extent of taonga tuku iho, those gifts handed down from above. Participants will be identified through whakapapa links and this will be part of whaanaungatanga and building a relationship between the interviewer or researcher and waahine Maaori participant. If waahine are not available, then a caregiver such as a close whaanau member will be invited to participate in the study. In a Waikato-Tainui context, whakapapa is about the ancestral connections and ties to Waikato-Tainui. It is also connected to whaanaungatanga and how people make connections.

4.2.6 Mana (Power)

Mana is power. In Waikato-Tainui, mana is used in Mana whakahaere. In the Waikato Raupatu River Trust Environmental Report (2018), it provides the following definition:

Ultimate Mana whakahaere refers to the authority that Waikato-Tainui has established in respect of the Waikato-Tainui rohe over many generations. Mana whakahaere authority entails the exercise of rights and responsibilities to ensure that the balance and mauri (life force) of the rohe is maintained. It is based in recognition that if we care for the environment, the environment will continue to sustain the people. In customary terms mana whakahaere is the exercise of control, access to, and management of resources within the Waikato-Tainui rohe in accordance with tikanga. For Waikato-Tainui, mana whakahaere has long been exercised under the mana of the Kiingitanga. (Waikato Raupatu River Trust, 2018, glossary)

Mana also refers to an extraordinary power, essence or presence. This applies to the energies and presences of the natural world (Broughton et al., 2013). Mana is about reaching the full potential of the individual. In this case the waahine Maaori and peepi is part of this research process. They are the experts in raising their peepi and can give responses at certain points of the interview process, from start to end. There must be
trust in the relationship between those being researched and those conducting the research in order for each participant’s mana to be left intact and feeling of restoration of mana and empowerment was reached. Upholding mana is about sustainable empowerment of waahine Māori within the current study.

4.2.7 Whaanaungatanga (relationships)

Whaanaungatanga is about relationships within whaanau, hapuu and iwi. Broughton et al. (2013) purports that,

Whaanaungatanga underpins the social organisation of whaanau, hapuu and iwi and includes rights and reciprocal obligations consistent with being part of a collective. p.5.

Whaanaungatanga has deeper meaning and is centrally about whaanau and the relationships held by a person. Whaanaungatanga involves individual strengthening those relationships with other individuals, wider hapuu and iwi community.

As Mead (2003) stated “The Māori world is full of social groups that call themselves a whaanau. Some are household units and some are large extended families numbering up to several thousand members.” (p.212) Different and diverse ways of interpretation means that “an absolute or definitive meaning of whaanau is problematic” (Collins & Wilson, 2008, Metge 1990 cited in Waiti, 2014, p.2). Durie (1995, p.464) discussed the notion of whaanau structures in contemporary times.

Far from being members of a homogenous group, Māori individuals have a variety of cultural characteristics and live in a number of cultural and socio-economic realities. The relevance of so-called traditional values is not the same for all Māori, nor can it be assumed that all Māori will wish to define their ethnic identity according to classical constructs (also cited in Haenga-Collins, 2011, p.26)

Whaanaungatanga is an extension of whaanau” (Mead, 2003, p. 29). This current study takes into account Whaanaungatanga as binding relationships between the researcher and those who are researched, in
this case waahine Maaori. Whaanaungatanga keeps the relationship between the whaanau and the person connecting engaged in the process. Whaanaungatanga is essential to the existence of being a good researcher who listens, to someone who does not engage in the relationship. Whaanaungatanga as important for further relationships outside of the research, when the researcher must go beyond the study itself, an aspect of insider and outsider that is discussed in Kaupapa Maaori methodologies and practices.

4.2.8 Mauri (Spiritual essence)

Mauri is about spiritual essence. Mauri is also Mauri is “special power possessed by Io which makes it possible for everything to move and live in accordance with the conditions and limits of its existence” (Barlow, 2001, p.83). Durie (1994) states that “Mauri is a spirit or vitality, sometimes called a life-force” (p. 71). Barlow (2001) further explains,

Everything has a mauri, including people, fish, animals, birds, forests, land, seas, and rivers; the mauri is that power which permits these living things to exist within their own realm and sphere. No one can control their own mauri or life-essence. (p.83)

Four key areas for ora (health) were considered when adopting Te Mahutonga Maaori, a Maaori model of health and wellbeing. Waiora refers to the natural environment and environmental protection; Mauri Ora is about cultural identity and access to the Maaori world; Toiora includes well-being and healthy lifestyles; and Whaiora encompasses full participation in the wider society.

Another example of Mauri are the three states which include:

1. Mauri noho - state of unwellness or laying in a state of noho (waiting in silence, unwell).
2. Mauri oho - connected to the arising and awakening of wellness
3. Mauri ora - success of wellness that the individual and whaanau or Māori community are doing well.3.

4.2.9 Taha Tinana (Physical body)

Taha tinana as posited by Broughton et al. (2013) is in its most basic sense is the physical body. In the current study, participants will be asked about the oral health of their peepi. What does oral health mean for them as waahine Māori?

Taha tinana is about Waahine Māori experiences to improve oral health and the physical wellbeing of their peepi. As mothers and nurturers of their peepi, exploring their physical needs is critical. Taha Tinana is about the oral health of tamariki/peepi/mokopuna in this study. Participants will share puuraakau about how they discuss tinana as a principle of providing good oral health practices for their tamariki/peepi/mokopuna.

For example, how do waahine Māori identify that oral health is important for them or their peepi oral health care. Open ended questions through MI practices will help to reveal waahine Māori experiences.

All nine principles of TNT provide a KMR framework to help guide the research and the researcher to explore how waahine Māori experience oral health for their tamariki/peepi/mokopuna. Mana Waahine and Puuraakau are next explained.

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3 Personal communication with Dr Alayne Mikaere-Hall on 10 August 2017 about mauri. (See further analysis work, page 98)
4.3 Mana Waahine (Maaori women self-empowerment theory)

Mana waahine is a theory about whakamana (to uplift and empowerment). Mana waahine is a validated and legitimate theory, along with Kaupapa Maaori which centres Maaori women the research. Mana Waahine research deconstructs, re-presents and re-constructs, re-examines Maaori waahine practices, values and beliefs, which challenges colonisation, patriarchal theories, western theories of feminism and theories that undermine and portray waahine Maaori negatively. The current study adopts a Mana waahine theory to reveal waahine Maaori experiences about improving oral health for their tamariki/peepi/mokopuna.

4.4 Puuraakau Maaori (Maaori oral narratives)

Puuraakau is a collection of oral narratives. In Te Ao Maaori or Maaori tradition, the art of puuraakau is often seen or heard on marae through whaikoorero or informally within whaanau spaces and places (Lee, 2009; Jenny Lee, Hoskins, & Doherty, 2005). The kaumaatua or whaanau have the option to choose which traditional story is appropriate in their shared whaikoorero (speech). A captivating orator is someone who can make whakapapa back to those listening and is able to use puuraakau where appropriate. The karanga by kuia or ruuruhi is common on marae, to welcome the manuhiri on to the marae. Without the kaikaranga (person who is responsible for the karanga or call) traditional tikanga is breached.

Ani Mikaere (2017) cited,

Within many iwi, women’s roles in the rituals of encounter are limited to karanga and the waiata. Yet even within these spheres of activity, women appear to have become circumscribed…the karanga fulfils a number of vital functions, and it provides kuia with the opportunity to speak (p. 112).
Thus the reason for waahine to open the *poowhiri* (formal welcoming) to acknowledge those manuhiri (guests) coming on to the marae for the waewae tapu those who have passed on and those living and to the *paepae* or tangata whenua to welcome on these people (Mead, 2003). Puuraakau will mean that waahine Maaori are empowered to tell their own lived realities.

Puuraakau can be misinterpreted in qualitative research, in that it is about sharing of stories. Puuraakau allows researchers to be a listener in the koorero and for the person telling the story to be heard. They are only a vehicle to provoke and awaken the individual’s personal puuraakau. Puuraakau is essential in allowing participants to be heard and given voice to their situation of the oral health of their tamariki/peepi/mokopuna and strategies to reduce and eliminate dental decay.

Puuraakau is intrinsically interwoven and intertwined to weave in oral history about significant place names and whakapapa. Peni (2013) in his thesis, reiterates the powerful puurakau of Waikato-Tainui about Tuurongo and Mahinaarangi. For the current study, this puuraakau is relevant to Waikato-Tainui. Peni explains the place of the birth of Raukawa as the place of Uukaipoo (place of nurturing). As Barlow stated:

> Ūkaipō refers to the nurturing of a person – literally to the place where a person is suckled… Ūkaipō can also refer to the place in which a person grew up, that is where he or she was raised on the ‘fat of the land’, especially during childhood. (p.143)

There is a connection between places and this study which shares stories in current times about tamariki/peepi/mokopuna.
4.5 Kaupapa arahi (Methods)

The study was a qualitative research utilising Kaupapa Maaori methodology and methods within the larger TMoTW randomised control trial located in the Waikato-Tainui rohe as described previously in chapter 1 - tuatahi. The researcher began with considering Kaupapa Maaori research (KMR) practices as the overarching methodological approach. The concept of using the TNT was discussed in the planning process. Puuraakau and Mana waahine were also critical in the underlying Kaupapa Maaori approach as a means of engaging with waahine Maaori. Motivational Interviewing techniques were adapted into the Kaupapa Maaori practices where appropriate.

4.5.1 Tangata Rangahau (Participants)

The Intervention Group for TMoTW consisted of 105 women who had completed their MI session when their peepi reached six months old. A random sample of 25 transcripts of women from the intervention group, using the random number function in Microsoft Excel was selected for this study. The researcher randomly selected 25 transcripts to analyse to answer the research question. See Interview Schedule Appendix C (i).

4.5.2 Tangata Moohio (Key informants)

The two key informants were Joyce Maipi (Key informant 1) and Dr Keri Bolton Oetzel (Key informant 2). Both informants were known to the researcher prior to the commencement of this study. Joyce Maipi has strong whakapapa links to Waikato-Tainui and has a long history working for Maaori health and the tribe. Dr Keri Bolton Oetzel is a Motivational Interviewing expert and has worked in Indigenous communities. Interview schedule – see Appendix C (ii).
4.5.3 Whitiwhiti Rangahau (Interviews and consent)

As part of TMoTW, individual semi-structured, in depth MI kanohi-ki-te-kanohi interviews were conducted within the Intervention Group. The interviews were conducted in concurrence with tikanga principles of Manaakitanga, awhinatanga, te kawa o te marae under the korowai of Waikato-Tainui. Participants had to meet the inclusion for this study as outlined in the Participant Information sheet (Appendix A). Each participant was contacted by phone or kanohi-ki-te-kanohi with the researcher where a date and time was agreed by both the participant and researcher.

All interviews were conducted on Kaupapa Maaori principles noted in section 4.2. Whaanau tautoko (family support) was provided if it was the intent of the participants. MI sessions were audio-recorded or written notes taken if the interviewee did not wish to be recorded. MI will be adapted to Kaupapa Maaori methodology to enable a similar style for engaging with research participants.

Informed, written consent was obtained before commencing (Appendix B). The MI interview process was trialled in the presence of some of the advisory panel. All interviews were between 20mins to one hour, and began with karakia (prayer) offered and whaanaungatanga. The interviews were guided by an interview schedule (Appendix C) which adopted MI techniques, such as open-ended questions, listening, OARS and non-judgemental cues, focused on the oral health of peepi. All participants were given the opportunity to stop at any time during the interview or opt out if they did not feel they could continue. The standard of MI was of a high standard maintained in the larger study TMoTW, where Motivational Interviewing Treatment Integrity (MITI) was used to gage the fidelity of MI.
4.5.4 Ngaa Matatapu (Confidentiality)

All transcriptions had any identifying information removed and were stored securely at the College. All recordings were destroyed. Ethical approval was obtained from the Northern Y Regional Ethics Committee in September 2010 (Appendix D) and was supported by the Waikato-Tainui Kaumaatua group of the Waikato District Health Board. Each participant received a koha (offering) by way of a food voucher for participating in the study. *Koha* is a reciprocal process given when individuals or groups make an offering of gratitude and respect. This is often seen in a *poowhiri* process.

4.5.5 Whitiwhiti Koorero (Data analysis)

The purpose of qualitative data analysis is to discover emerging patterns and themes, gaining insight and understanding (Braun & Clarke, 2006). Thematic analysis was used to locate emerging patterns and themes, and to gain insight into the experiences of Maori women and the oral health for their peepi. For the current study, the themes capture puuraakau and patterns of emerging themes shared by waahine Maori and their experiences which are meaningful and relevant.

*Timata rangahau (Establishing data categories)*

All audio recordings were listened to carefully together with the rereading of the transcripts for accuracy. The researcher became familiar with the data along the way and this was repeated in order to become familiar with the raw data. The coding took a rigorous and repetitive reading of the transcripts. This sometimes meant going back to listen and make notes or memos along the way. Supervisors were given a copy of the transcripts. Data analysis involved initial coding, followed by focused coding and sorting initial codes into categories and sub-categories, and identifying their properties and links between them.
Field notes were written throughout the data analysis, and captured emerging themes and sub-themes. Inductive analysis to code and interpret participants’ statements as they related to the research questions was conducted.

Figure 6 below illustrates a concept map of key themes and subthemes for this current study.

![Concept map of themes and coding](image)

**Figure 6: Concept map of themes and coding**

### 4.5.6 Whakapono rangahau (Reliability and validity of data)

Trust worthy and reliability are essential to the research. All research participants were able to ask for their transcripts. All information was kept confidential. Themes were extracted and supervisors reviewed the categories. Respondent validation occurred when participants were respected and their mana was kept intact through the kanohi-ki-te kanohi interviews. This process of privileging Maaori voices gives validity, and enhances and authenticates the research (Cram, Smith, & Johnstone, 2003).
Field notes were used to report the link between these concepts and how they applied to the early childhood caries intervention. The researcher conducted an analysis from the interviews and coding of all the data, and how MI might align with concepts of Kaupapa Maaori principles and applying these principles and MI elements to ECC.

Table 4 on the next page 59 represents Kaupapa Maaori principles, TNT and MI. The table or TNT analysis highlights the uniqueness of all three concepts (TNT, Kaupapa Maaori principles and MI) working to allow an analysis framework and how this can be applied when researchers enter into the field to kōrero about changing ambivalence of Maaori people in their own whaanau homes and settings. Similarities and differences between the two concepts are unique and may be adapted for future research.

The researcher noted that the competency and skill level of the person conducting work with whaanau must be familiar with both Maaori and MI, however MI was seen to be adaptable to cultural principles and values of Maaori and can be taught.

Researchers who research Maaori and are not Maaori provide a different lens to the interpretation and understandings of Maaori because they have not lived and been acculturated to Maaori ways. However the literature evidence (Miller & Rollnick, 2013; Venner et al., 2008) suggests that MI can reach all cultures and people through aspects of the MI techniques used such as having the MI spirit, being non-judgement and treating people with respect.
4.5.7 Te Niho Taniwha Whitiwhiti (Te Niho Taniwha analysis)

Table 4 highlights the alignment of TNT with motivational interviewing undertaken to provide a framework for analysis.

**Table 4: TNT, Kaupapa Maaori, MI analysis**

<table>
<thead>
<tr>
<th>Kaupapa Maaori– TNT approach</th>
<th>Motivational Interviewing technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingitanga (self-empowerment)</td>
<td>MI spirit desire to uplift and empower</td>
</tr>
<tr>
<td>Waikatotanga (location)</td>
<td>Location, identity</td>
</tr>
<tr>
<td>Hinengaro (mind)</td>
<td>Change talk</td>
</tr>
<tr>
<td>Wairuatanga (spiritual connection)</td>
<td>MI spirit</td>
</tr>
<tr>
<td>Whakapapa (Ancestral Connections)</td>
<td>Connection</td>
</tr>
<tr>
<td>Mana (Power)</td>
<td>non-judgemental, empathy</td>
</tr>
<tr>
<td>Whaanaungatanga (Relationships)</td>
<td>(Building rapport)</td>
</tr>
<tr>
<td></td>
<td>Engaging in OARS</td>
</tr>
<tr>
<td></td>
<td>Open ended questions</td>
</tr>
<tr>
<td></td>
<td>Affirmations (tautoko, being supportive)</td>
</tr>
<tr>
<td>Mauri (essence of life)</td>
<td>Reflections</td>
</tr>
<tr>
<td>Taha Tinana (physical body)</td>
<td>Summaries</td>
</tr>
<tr>
<td></td>
<td>ask permission</td>
</tr>
</tbody>
</table>
4.6 Whakaraapopoto (Summary)

The KMR methodological framework is underpinned with concepts of Te Niho Taniwha, Mana waahine and Puuraakau ways of doing research. The research study design was described. The nine principles of the TNT framework are: Kiingitanga, Waikatotanga, Hinengaro, Wairuatanga, Whakapapa, Mana, Whaanaungatanga, Mauri and Taha Tinana. In addition, Mana Waahine and Puuraakau were explained. Thematic analysis will be used to analyse the data (Braun & Clarke, 2006). The next Chapter 5 Te Koorero tuarima is the results of this study.
Chapter Five: Te Koorero Tuarima- Results

Tooku awa koiora me oona tikanga
He kura tangihia o te maataamuri
Naa Kiingi Taawhiao (second Maori King)

The river of life, each curve more beautiful than the last. (Waikato-Tainui, 2018; cited in Science Learning Hub, 2018)

Whakamaaramatanga (translation): This whakatauki and taonga tuku iho is about Taawhiao depiction of the Waikato awa and the significant essence of Waikato-Tainui tribes and people. This current thesis is entitled ‘He awa o Mokopuna oranga niho’ – connecting both the awa and Waikato-Tainui people as one, and signifying the importance of oral health for future generations of Waikato-Tainui.

5.0 Timatanga (Introduction)

This chapter describes the experience of the waahine Maori participating in the trial; and their knowledge of, attitudes to, and practice of oral health for their peepi. Section 5.1 is tangata rangahau (participants). Four puuraakau or themes emerged from the analysis of the interviews. Section 5.2 is the overarching theme of Mokopuna ora (Wellness of future generation). Section 5.3 reports Puuraakau o Taonga Tuku Iho (gifts, knowledge, beliefs, values, practices); Section 5.4 reports Puuraakau o oranga kai (Eating well) and Section 5.5 reports Puuraakau o Tamariki/Mokopuna ora (Health service access). Subthemes are reported within these broader puuraakau or themes. The final section 5.6 reports the Kaupapa Maaori – Te Niho Taniwha approach which provides an overall analysis for the result of this study.
5.1 Tangata rangahau me Tangata moohio (Participants and Key Informants)

The findings captured rich puuraakau from 25 waahine Maaori and whaanau participant’s transcripts selected for analysis as mentioned in previous chapter 4: Methodology and methods. The research waahine Maaori participants’ ages ranged from 18 years to 46 years of age, with an average age of 34. Of the 25 participants, 18 were waahine Maaori and seven were whaanau members. All Maaori women and whaanau were residing in rural and urban locations within the Waikato-Tainui rohe. Most of the participants lived in Waikato (n=17, 68%) with 11 in urban areas, and six in rural areas of which one waahine participant lived in a rurally isolated area and the remaining eight participants resided in South Auckland.

All participants lived in low socio economic areas. Some waahine Maaori and whaanau came from middle working class and high income earning backgrounds and chose to live in locations near or within whaanau living arrangements by marae, with whaanau and extended whaanau, hapuu and iwi. Waahine Maaori were solo parenting, partner parenting, whaanau parenting, whaangai (Maaori adoption) parenting and blended parenting (mixed marriage). All participants indicated whaanau diversity, such as parenting from different ethnic and Indigenous backgrounds. Waahine Maaori were first time mothers or raising more than one child (for example, a mother with nine children) and a mother of twin girl babies. In addition, waahine and whaanau led busy lives while raising their peepi. Waahine Maaori managed studying and working in full or part time employment. Seven whaanau participants were interviewed or were present with waahine Maaori.
There were five tuupuna or kaumaatua (three kuia and two koro), one aunt and one uncle. Six taane Maaori were present with waahine Maaori or kuia. Of the six taane Maaori, two were night shift workers, one fulltime stay at home taane (father, dad), a youth worker, a university student, and a kaumaatua (koro) retired. Other young tamariki and whaanau members were present in the background during the interviews.

All participants’ shared their own hopes and aspirations for their tamariki/peepi/mokopuna importance of having good oral health or oranga niho. The two key informants shared their whakaaro about Kaupapa Maaori, MI benefits and challenges of implementing MI, and Oranga Niho. There shared puuraakau is 5.5.1 (key informant 1) and 5.5.2 (key informant 2).

5.2 Mokopuna ora (Wellness of future generation)

The overarching theme was Mokopuna ora (Wellness of future generation), which draws on Kaupapa Maaori practices for achieving positive oranga niho for future tamariki/peepi/mokopuna. The concept of Mokopuna ora fits within a Kaupapa Maaori philosophical view for achieving oranga niho. Subsequently, whaanau ora (maximising whaanau health and wellbeing) is also maintained. Figure 7 on the next page 64, illustrates the overarching theme Mokopuna ora and three emerging themes:

- Taonga tuku Iho (gifts, knowledge, beliefs, values, practices);
- Oranga Kai (Eating well) and
- Tamariki/Mokopuna ora (Health service access).
The three themes are presented as follows: Section 5.3 reports Puuraakau o Taonga Tuku Iho (Heritage, connectedness, traditional knowledge) outlined by sub-themes: 5.3.1. Ngaa tikanga tuku iho (Traditional practices), 5.3.2. Kaitiaki o te oranga niho (nurturers of oral health and wellbeing) and 5.3.3. Tamariki/Mokopuna oranga niho (child oral health); Section 5.4 reports Puuraakau o oranga kai (Eating Well) with sub-theme: 5.4.1 Kai Taiao/Kai pai (Natural Food), 5.4.2. Ngaa ahuatanga kino mai i nga kai hokohoko me nga kai kino mo te hunga tamariki/mokopuna (adverse nutritional effects of child health from takeaway foods, fast foods and sugar intake) and 5.4.3 Matauranga oranga niho me oranga kai (knowledge about oral health and wellbeing and eating well); and Section
5.5 reports Puuraakau o Tamariki/Mokopuna ora (Health Service access) entails sub-themes: 5.5.1 Tamariki/Mokopuna ora (Well Child Services), 5.5.2 Oranga niho Maaori (access to Maaori oral health services) and 5.5.3 Taakuta niho (access to dentist).

Ngaa tukunga iho o tangata moohio (Key results)

5.3. Puuraakau o Taonga Tuku iho (Heritage, connectedness, traditional knowledge)

A major theme of Puuraakau o Taonga Tuku Iho was about cultural heritage, cultural connectedness and traditional knowledge transfer. These recurring themes contributed to generational knowledge transfer between tuupuna and tamariki/mokopuna to obtain overall Mokopuna oranga niho. Three sub-themes emerged as Ngaa Tikanga tuku iho (Traditional practices), Kaitiaki o te oranga niho (Nurtures of oral health and wellbeing) and Tamariki/Mokopuna oranga niho (Child oral health).

5.3.1 Ngaa tikanga tuku iho (Traditional practices)

The sub-theme is Ngaa tikanga tuku iho (traditional practices). Waahine Maaori and whaanau participants’ revealed maatauranga Maaori (traditional Maaori knowledge and practices) handed down by tuupuna to their mokopuna. This sub-theme was reported as: 1) tapahi puuniho (cutting of gums); 2) upoko tapu (sacredness of head) and 3) wairuatanga (spirituality). Traditional practices were connected to taonga tuku iho of cultural heritage and taonga (gift) inherent of tuupuna past experiences of oranga niho.

Tapahi puuniho (cutting of gums)

All waahine Maaori and whaanau participants had diverse accounts of their peepi’s teething experiences. Mothers and whaanau spoke about their peepi (baby, babies) teeth coming through for the very first time and saying how stressful this was for them in the long run.
Mothers recalled maatauranga Maaori, the cutting gums to ease the pain of teething as a traditional practice.

…All the nannies, they ask, ‘do you want me to push her teeth out?’ You know, they push the gums. They did it obviously in their time. What’s so wrong about it doing it now? My koro did that [cut gums] to my eldest babies, cut their gums.

While the traditional ways of cutting of gum were practiced, waahine Maaori had opposing ideals of what this meant for them and their peepi. For some mothers, there were some hesitancy towards some traditional practices. A mother stated:

My mum is saying to me cut her gums cut her gums because that’s what nan used to do and I’m like hell no!

Upoko tapu (sacredness of head) me tinana (body)

A sacred part or tapu (sacred) part is the head. In Te Ao Maaori, the upoko (head) is considered a tapu component of the tinana (body). The jaw or kawau maro is also part of the upoko, which in turn has considerations for niho (teeth) or oranga niho. Mothers’ and whaanau (family) described the importance of the functionalities of the head. Women and whaanau described and observed their peepi actions for waiata (singing), kapa haka (Maaori chants), koorero (speak, speech), kainga te kai (eating food), katakata (laughing), and menemene (smiling). All these actions are all signs of hauora (good holistic health and wellness) for peepi (babies) which relate to the head as a sacred tinana (body). In addition, participants expressed about their experiences of child-birthing, and naming of their tamariki/peepi/mokopuna. By encouraging oranga niho for their peepi, participants described the importance of maintaining good oral health habits for their tamariki. A mother of nine stated:

I encourage all my (tamariki) to have good teeth because I have a lot of teeth problems and I encourage them all to look after their teeth so when they smile it’s a beautiful smile.
Other mothers commented on the regular and non-regular brushing of teeth for other tamariki/peepi/mokopuna.

...My (tamariki) are pretty good at brushing their teeth but they may not brush it morning and night, maybe not all the time. If not in the morning, they will at night, if not at night, they may brush it in the morning.

**Wairuatanga (Spirituality, spiritual essence)**

The notion of wairuatanga (spiritual connection, spiritual essence) was seen through karakia. Karakia meant seeking help from tuupuna (elders, ancestors, grandparents) for their presence when an individual encountered fear.

For example, because of the fear that many whaanau have of going to the dentist, some whaanau Maaori stated,

It’s okay; you have your [tuupuna] ancestors with you.

Wairuatanga involve tuupuna being present when visiting the dentist to be able to remove fear when going into a strange and unfamiliar surroundings that whaanau Maaori encounter at times. Tuupuna are protectors and wairua is to connect with tuupuna to face the fear of what is about to happen to them.

Wairuatanga was about the practice of karakia. The karakia allows connection between the individual performing karakia for spiritual connection and guidance with tuupuna or Atua (spiritual being). In this study, all participants were offered karakia prior to the kanohi-ki-te kanohi interview start and closure. The karakia can be a mihi (acknowledgement) for the spiritual connection with other individuals and connection tuupuna and/or Atua (spiritual being). One waahine Maaori was open to performing karakia, both opening and closing of her kanohi-ki-te kanohi interview, which was spoken te reo Maaori.
She later expressed her appreciation of the interview and stated:

I’m always happy to take part in research that is going to help future generations, our young mums so thanks. [karakia (prayer) in te reo Maaori followed].

In addition, observations of karakia were performed in places of cultural significance such as kohanga reo, wharekura and marae. Women and whaanau spoke about attending hui, marae events, and other Maaori cultural gatherings. Karakia were performed in participants’ whare (home) and was a part of everyday rituals for Maaori accustomed to te reo me oona tikanga Maaori. Participants were receptive to having karakia which attended to their holistic needs.

5.3.2 Kaitiaki o te oranga niho (Nurturers of oral health and wellbeing)

This sub-theme was Kaitiaki o te oranga niho (nurturers of oral health and wellbeing). The notion of Kaitiaki meant waahine Maaori, taane Maaori, tuupuna, whaangai parents, solo mothers and extended whaanau were nurturers of their peepi. Explicitly, Kaitiaki o te oranga niho played a pivotal role in the oral health care of their tamariki/mokopuna/peepi. This sub-theme was reported: 1) Ngaa tuupuna me ngaa maatua, 2) Mana waahine (Authority of Maaori women) and 3) Mana taane (Authority of Maaori men).

Ngaa tuupuna me ngaa maatua (Grandparents, elders and parents)

Most tuupuna (grandparents, elders) and maatua (parents) were seen as kaitiaki or nurturers and carers of tamariki/peepi oral health and wellbeing. Tuupuna shared traditional knowledge about Te Ao Maaori (tikanga, ways of Maaori) with their mokopuna. Kaitiaki status meant the concept of manaaki (care) went beyond oranga niho, which entailed a wide range of skills and attributes to raise young tamariki/peepi. Tuupuna surrounded their tamariki/mokopuna with aroha (love) and manaaki. A waahine Maaori participant expressed how her own mother was highly regarded in their whaanau and said, "Mum shares her knowledge as a
Kuia for our family. She is to be respected. These kids know that. We put her on the pedestal absolutely”. A kuia stated:

Our [tamariki], our whole universe revolves around our [tamariki] and our mokos’ (mokopuna, grandchildren). Every grandparent I’ve talked to they say welcome to the Nanny’s Land, Koro’s Land. It’s a good mahi, we love it.

Another kuia stated:

The motherly or nana-ly instincts kick in...because with my nieces [when they were younger], I was too scared to hold them and bath them...As soon as [my daughter] had [peepi] (baby), I was in there helping as much as I could and like [she was the] first [peepi] I bathed in 12 years.

Another waahine described her experience of whaangai parenting (Maaori adoption). She spoke about her experience of adopting her new peepi through the whaangai process after hearing by way of the kumara vine\(^4\) that a young mother was looking to whaangai her peepi.

A hui between the mother and the adopting whaanau where exchanges of whaanaungatanga, whakapapa and whaanau links took place in the whaangai exchange. This participant stated:

We whaangai (Maaori adoption) [peepi] through extended whaanau.

However, in relation to teeth, waahine Maaori remarked about tuupuna (grandparents) were often seen as offering treats (sweet lollies, chocolate, jam) to their mokopuna and stated,

[Good tooth brushing] starts before (peepi/baby’s) teeth grow so don’t go giving them jam and stuff, lollies.” “Her other nan (grandmother) when she came to visit you know [peepi] was sucking on chocolate biscuits.

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\(^4\) Kumara vine – a form of Maaori communication, where news is spread through whaanau networks and connections.
Mana waahine (authority of Maaori women)

Mothers or waahine Maaori were the nurturers of oranga niho.

A mother puuraakau was shared:

Oral health should be paid more attention…our Maaori children don’t seem to think it’s a big thing. Some Maaori children not all, but it would be good for the future for our Maaori children to know how important it is, that way they won’t be having their tooth pulled out so early or teeth trouble when they get older.

Mothers were supported by whaanau to help take care of their tamariki/mokopuna. This mother shared her hopes and aspirations for her tamaiti (child, peepi) oral health and stated,

I want [my son] to realise that your niho (teeth) are your most important part of your life. I believe especially when you get older, I mean presentation wise you want to show people that healthy teeth is a healthy you. I want him to know regular brushing and things like that and not be like me, where I get cavities and things.

Another mother shared:

I don’t want [my son’s] teeth to get any cavities or holes in them like sooner than what he should because I’ve got a lot of cavities which I need to get done.

Most of the 25 participants felt that oranga niho was very important. This importance of oral hygiene care and nutritional needs helped to motivate participants to do more for their tamariki/mokopuna. Frequently, participants’ puuraakau told of other whaanau members’ experiences of poor oral health. A waahine Maaori stated,

I have seen my parents experience decaying teeth and having them replaced with false teeth, or go through pain. I make a conscious decision that I don’t want the same thing happen for my baby.
While all the comments were positive about oranga niho, some waahine described experiences about having poor oral health, dental decay and missing teeth as one waahine expressed in her koorero:

My one's [teeth] have got big gaps…I had a plate myself and I didn’t want that for [my son].

The importance of having teeth meant taking care and knowing that without ones teeth there is a loss of ability to eat food:

You need your teeth as long as you can…really being around family with their teeth loss like with my grandmother and mother because they didn’t look after their teeth and now they suffer from having to eat on one side or can’t eat meat.

And she further explained how this might be improved by consistently brushing teeth regularly:

If I was consistent [with tooth brushing]

This led to further koorero about whaanau experiences of adult and child oral health amongst other whaanau members:

We never really pushed oral health [within our whaanau]
We didn’t look after our teeth when we were young so we are making sure our children do it.

In addition, waahine Maaori led busy lives either returning back to work or students, while still managing to raise their peepi. The youngest participant had returned back to school and spoke about her teachers and her hopes and aspirations. She said this,

…the teachers bring out the best in us really and help us get through everything and it’s not even just school stuff like they help us out of school they give us bus cards to get here like money for transport everything money for other courses we want to go to…they help us out so much.
Mana taane (authority of Maori men)

The study reported that Taane Maori (Maori men) were also seen as kaitiaki and providers for their whaanau. Taane Maori as kaitiaki were fathers, husbands, grandfathers, uncles, and extended male whaanau. For example, a stay home taane encouraged oranga niho in his whare. He stated:

It is important [oral health], especially at bath time. Our son, he knows how to brush his teeth now. Whereas he used to eat the toothpaste (or) just roll the toothpaste around in his mouth. We do it with him, so we brush with him (his teeth) so he knows. The first lot (of toothpaste) he might eat then he will start brushing his teeth. Sometimes we have to help him and baby. It is all about the toothpaste.

Another taane Maori spoke strongly about the fluoride issue in his local community. He responded:

What about this fluoride? What’s the stance on that? It’s going to a referendum did you hear that? The referendum where you vote for everyone in council you put down who you are going to vote for? Everyone’s talking about it, it’s about Hamilton. It’s a big national issue.

He further stated,

It’s a big issue because the majority of the people living in Hamilton do want it. It affects the poor, and families.

Waanau experiences of having poor experiences of oral health contributed to being whakamaa (shyness). Participants spoke about other whaanau members having decaying teeth and being embarrassed to go to social occasions. A waahine Maori commented about her tama (son) in these terms:

My eldest son [8 years old] has bad decay. He’s just bad all over. He’s not really worried about his teeth only when he goes to birthday parties.

Another waahine says,

My husband might need a set [of dentures] soon because he drank all the horrible fizzy [drinks]. He knows now how important it is [good oral health].
5.3.3 Tamariki/Mokopuna oranga niho (Child oral health)

This sub-theme was Tamariki/Mokopuna oranga niho, which meant the wellbeing of tamariki/mokopuna. Cultural-identity and connectedness were seen as a way of achieving Tamariki/Mokopuna ora. Participants expressed the perceptions about uukaipoo (place of nurture) and their own values, whakapapa and things of Te Ao Maaori. The sub-themes reports: 1) Uukaipoo (place of nurture) 2) Whakapapa (genealogy, heritage) and 3) Te Ao Maaori (The Maaori World View).

Uukaipoo (place of nurture)

The notion of Uukaipoo was discussed as a place of nurture where participants felt safe and secure. According to Barlow (2001), “when a person dies it is expected that they will be interred with the bones of the ancestors, who continue (now in the spirit realm) to provide their children with spiritual sustenance.” (p.143). Uukaipoo considered a place to raise their tamariki/mokopuna, which in turn, encouraged oranga niho rituals and practices. Maaori women described uukaipoo as being raised on marae, learning te reo Maaori and watching tuupuna speaking on their marae. The marae was a place of gathering and learning traditional practices and for participants to embrace their own cultural connectedness. Participants stated,

…I come from [small rural town in Waikato]. Born and bred. My children have been raised at the paa (marae, place of gathering) and my tamariki go to wharekura.

…I actually lived in the country and it was beautiful, it was awesome. It was just a community where they didn’t stress too much about education or whaanau stuff, but education wasn’t stressful where I come from. I often think what if I was still back there you know, where would my kids have been? But since we’ve come over here [city], more opportunities.
A mother of five explains about her shift back from Australia and why coming home was important for her:

My eldest son, I whaangai (adopted out) to my Aunty…I was in Aussie at the time…have since returned home to [rural Waikato town]

**Whakapapa (genealogy, heritage)**

Whakapapa is about genealogy and heritage. All waahine and whaanau expressed the importance of whakapapa meaning strong ties to iwi and Waikato-Tainui tribal connection. Women and whaanau expressed about how important whakapapa and extended whaanau meant to them. While some of the participants affiliated to other iwi, they recognised that they were residing in Waikato-Tainui rohe and it was a new way of living and upbringing for their tamariki/mokopuna. A number of participants spoke explicitly about their whakapapa. Some excerpts were,

I’m from [small rural town in Waikato], my marae is [marae name]

I’m from [another iwi] …I met my husband in Waikato

[Peepi] dad (father of my peepi/baby) is Samoan and her nana is Chinese. Chinese grandmother. My side (of the family is) Scottish, Welsh and Maaori…I’m from [a rural town]

A strong emerging theme was encouraging whaanaungatanga (relationships) oranga niho practices. Whaanaungatanga meant doing things together as a whaanau (family), where young ones watched their elder siblings brushing their teeth (tuakana-teina). This mother said,

They have a shower. I tell them to brush their teeth. They remind me “Mum we have to brush our teeth.” I’m like OK, go, and they just run in there and brush their teeth and this one [peepi] I do myself.

Whaanau are everywhere. There is lots of whaanau. Our baby, she’s lucky to have all her brothers, sisters, cousins, aunties and uncles around her.

The concept of whaanaungatanga also meant the whaanau or other siblings within the household coming together, to join in the oral health ritual of brushing their teeth together.
Whaanau involvement in oral health rituals was often seen as practicable, tuakana-teina (oldest–youngest) as holistic practice for whaanau Maaori.

[My tamariki] follow each other. They copy each other. They’ve got their toothbrushes the same time*

**Te Ao Maaori (The Maaori World View)**
The Maaori worldview was about cultural connectedness and identity. Mothers and whaanau held strong cultural beliefs and practices when it came to raising their peepi. This came in the form of tikanga Maaori practices and values, te reo Maaori, and Maaori uara (values). The importance of knowing and being Maaori was emphasised by these mothers and whaanau participants.

Waahine shared of their teachings to their peepi about Te Ao Maaori and tikanga Maaori. Traditional cultural practices in Te Ao Maaori and tikanga Maaori came in the form of waiata, kapa haka and te reo Maaori. For example, this waahine Maaori expressed how te reo Maaori was embraced and supported by her own mother and her tamariki. She stated:

Mum is fluent reo speaker because she’ll talk to the tamariki in Maaori. Probably that’s the other thing she tries to say to me is come on I need to learn my te reo to help the kids because the children are at wharekura. [Peepi] going to go through the same process of kohanga and then wharekura.

Teaching traditional Maaori ways were important also for a couple tuupuna (grandparents) raising their mokopuna. Through puuraakau they described their influence on the next generation and mahi (working) on the marae was of significance to them as a whaanau. They encouraged their mokopuna in tikanga Maaori by making connections to the whenua (land), tangata (people) and marae (Maaori place of gathering). This kuia stated:

I go to all the marae committee meetings too so whenever I go and I’ve got her [peepi] I take her with me.
Furthermore, the same kuia spoke about many of the places she would take her mokopuna and the importance of their hikoi (travel, journey) to these significant cultural places. Another excerpt explains this through her eldest mokopuna stating:

We need to help prepare our marae for our manuhiri and we need to come back afterwards and clean up after everyone has gone aye Nan.

The findings revealed that being Maaori and cultural connectedness was important for most of the participants. Some waahine and whaanau also spoke about being disconnected from their marae, whakapapa and tribal roots. From this disconnection, participants expressed their desire to speak and understand te reo Maaori me oona tikanga as part of their tamariki/mokopuna lives.

Other participants spoke about tikanga Maaori practices and values as making tooth brushing a regular habit within their whaanau. Some excerpts are:

We brush his teeth every night. He’s got his own toothbrush and everything. He’s really good though. He’s hardly ever upset but lately he’s been upset. I’ve got a feeling its teething because he is just crying for me and his dad. 
[My tamariki] brushes [his teeth]. He [actually] eats his toothbrush. I try to brush his teeth. He knows what a toothbrush is. He brushes his teeth when he gets out of the shower. He doesn’t eat bad food to make his teeth rot.

5.4 Puuraakau o oranga kai (Eating well)

The sub-theme oranga kai (Eating well) was about healthy eating, having access to quality food and the adverse effects of some kai choices and knowledge about eating well. The sub-themes were described: 1) Kai Taiao/Kai pai (natural food), 2) Ngaa ahuatanga kino mai i nga kai hokohoko me nga kai kino mo te hunga tamariki/mokopuna (adverse nutritional effects of child health from takeaway foods, fast foods and sugar intake) and 3) Matauranga oranga niho me oranga kai (knowledge about oral health and wellbeing and eating well).
5.4.1 Kai taiao (Natural Food)

The sub-theme is Kai taiao. All waahine Maaori shared experiences of their experiences of kai taiao. The shared puuraakau amongst waahine Maaori revealed narratives about breast-feeding and natural access to foods or natural kai for their tamariki/mokopuna. Whaanau participants spoke about breast-feeding and natural access to healthy natural kai. Natural access included growing food from mara kai (garden), meal preparation of kai with vegetables and fruits which contributed the overall wellbeing of their peepi. The sub-themes were described: 1) Ngaa kai o Taane Mahuta (foods of Taane Mahuta), 2) Te Wai o Tangaroa (the Maaori god of oceans, seas, rivers and water) and 3) Iti te utu o te oranga kai (affordability of health food).

Ngaa kai o Taane Mahuta (foods of Taane Mahuta)
This sub-theme is about having natural kai (food) such as breastfeeding and natural kai from the whenua. In Te Ao Maaori (Maaori worldview) all things come from Taane (God of forests and of birds). Participants revealed their own experiences about breast-feeding and related to natural kai for their peepi. Most of the waahine Maaori shared experiences of breastfeeding. Breastfeeding was a common feeding ritual for waahine Maaori. Women adjusted breastfeeding or feeding babies techniques to the demands of their peepi/tamariki. Some indicative quotes are:

[Peepi is] breastfed on demand.

[Peepi is] wonderful, she’s a wonderful kid. I don’t have much problem with her as she’s breast-fed.

There is a couple more [teeth] down there. He bites like nobody’s business. I am breastfeeding too.
Not all waahine were comfortable with breastfeeding as shown:

I actually didn’t breast feed her at all, I just gave her that little bit at the start [for a month]...and then just bottle fed her and I feel really good about it actually you know I just think: Wow, I didn't put myself through that.

[Peepi] had a horrible birth and she [nurse] couldn’t latch baby on (for breastfeeding). No one at the hospital was helping me.

Mothers provided natural kai such as vegetables and fruit in meal preparation to their tamariki/mokopuna/peepi. Some excerpts are:

[Peepi] has potato, pumpkin, puha, watercress, silverbeet, spinach, vegetables mainly and fruit.

I normally make up a big boil up from basically, just whether it's potato, pumpkin, kamokamo and just heaps of vegetables.

We give [peepi] homemade [kai] for dinner, he has broccoli, cauliflower, pumpkin, kumara, potato, carrots... we puree some peaches, apples, pears for breakfast and lunch.

Whaanau expressed the importance of having a vegetable garden and what was grown to help nurture their mokopuna/peepi staple kai.

We’ve got kamokamo sometimes we’ve got kumara, celery, we’ve got that green stuff, Silver beet from the garden.

This waahine Maaori felt that having a vegetable garden meant that financially it was more viable for her whaanau needs.

We are starting a vegetable garden which I think was just a financial thing.

Healthy kai meant that babies were getting the nutritional kai such as fruits and vegetables.
Te Wai o Tangaroa (The Māori god of oceans, seas, rivers and water)

In Te Ao Māori worldview, the source of water originates from Tangaroa. The Māori god Tangaroa or Atua (Māori god) provides water sustenance to people and replenishes the earth with water and sustenance. Wai (water) was also encouraged as part of oranga niho. Most participants’ affirmed that wai was a contributing factor to their tamariki/peepi/mokopuna overall good oral health.

Participants recognised that drinking well, meant having wai available. Often wai was supplemented as a preferred replacement fluid compared to fizzy and sweet drinks. While participants were vigilant in wai, they also were sometimes influenced by the availability of fizzy and sweet drinks in supermarkets and local shops. This mother says,

I always give her water [wai] just so she doesn’t have that bottle taste in her mouth so its bottled water [wai].

A couple kaumaatua (grandparent) participants saw treats offered to tamariki/peepi/mokopuna as a bad tohu (sign), after having experienced other Indigenous children with poor oral health. This couple tuupuna shared their puurakau about how they adapted to the way of living and worked with Indigenous Australians as health care workers. They stated:

I worked in an aboriginal community, with the aboriginal people. I was responsible for the childcare and purchasing the food. We used to have workshops to bring the women in (to the centre) with their babies, and try and help them cook healthy tucker.

We got the drinks that were like less sugar…its just things that you learn in life, you know how you go through life and pick up things… I’m not going to give that [coke and sugary drinks] to my moko…waters the best thing.

This puuraakau was about young Indigenous mothers making healthier choices and changing behaviour when feeding their young infant/peepi. A strategy was put in place to help re-educate and encourage these women to look at healthier options to improve better oral health for their babies and also to advocate at a community approach to reduce selling coke and
fizzy drinks in local shops. Other strategies to help re-educate and encourage the women read food labels for sugar content and to replace fizzy drinks and coke for less sweetened options.

Iiti te utu o te oranga kai (affordability of health food)
Affordability and cost when providing healthy food for tamariki/mokopuna, enabling good outcomes for oranga niho. Participants were able to identify what foods were healthy for their tamariki/mokopuna.
Affordability had a major factor in decision making for mothers and whanau. One mother shared koorero about how her day care centre helped her make affordable healthy snacks for her peepi. She stated,

They [day care centre] have courses every Wednesday, parenting courses…where they take us to a place and show us activities so we can help our kids. We can do things, even make snacks and what are good snacks for baby.

5.4.2 Ngaa ahuatanga kino mai i ngaa kai hokohoko me ngaa kai kino mo te hunga tamariki/peepi/mokopuna (adverse nutritional effects of child health from takeaway foods, fast foods and sugar intake)

Participants’ voices expressed their concerns about the struggles of insufficient and low income especially from those who were on low incomes such as WINZ benefits. They were challenged by everyday struggles to seek affordable kai choices. Having not enough income to afford good healthy kai, put restrictions on what this meant for their peepi health and in turn oranga niho. Furthermore, poor nutrition led to detrimental effects on tamariki/Mokopuna ora health care. Most of the participants expressed shared experiences about having poor oral health within their whaanau or own individual dental care.
Participants identified the problem of whaanau giving sugary foods to their tamariki/mokopuna and stated:

> All our family [have] got [bad decay] on our teeth.  
> We don’t want that happening, just all the sweets and rotten teeth and all of that, teeth wise. Too much sugar and we’ve all got rotten teeth and crooked.

Another common theme was the adverse effects and lifestyle choices that were described by Maaori women. They understood the detrimental effects that sweets and junk food had on holistic oranga niho of their peepi.

This young waahine indicated why there are problems of tooth decay in young Maaori children,

> My [whaanau] work for an ice cream [organisation] Aunty works for the lolly factory. We constantly have people giving it to him. Like we’ll go see them and they’ll say, “Oh, he’s so cute, give him a biscuit. He’s so cute, give him an ice cream’... That’s basically what {my peepi] eats is chocolate biscuits, ice cream and lollies.

To overcome this the same mother shared strategies by setting boundaries as to when and how whaanau negotiate these kai choices for her peepi.

> We set the boundary of not giving him the amount of junk food that he’s getting now.
> We didn’t look after our teeth when we were young so were making sure our children do it.

This participant stated:

> It is about the foods and juices unfortunately. They love lollies and they love drinks but maintaining the brushing is important.

A kuia shared her experience

> I’ve had bad experiences of kids drinking juices and rot their teeth and stuff. I’ve actually seen it and my sisters who are nannies themselves and they’re really devastated that their moko[pu]n had developed all her milk teeth had gone rotten.
Other participants agreed about *kai* choices and also extended *whaanau* offering sweets and bad choices of food and fizzy drinks to their own *tamariki/peepi/mokopuna*.

It’s bad choices and diet and the grandparents. They know they can get away with giving them anything. Koko, he’s bad for giving lollies.

A young *waahine* spoke about her father not knowing what to give her as a baby and repeating that her father was a positive role model but just needed support and information about healthy *kai* preparation and *oranga niho*. She says:

> My dad gave me coke when I was six months old and my Dad will give [my son] biscuits for lunch…Mum said I was the junk food baby.

Other *tamariki* can experience dental decay more than other *tamariki* as one *maama* stated:

> I felt sorry for my daughter when she was going through all those [teeth problems] which I never had [experienced] with my other kids [tamariki].

This particular *waahine* Maori spoke about seeing other *tamariki* with poor oral health. She commented:

> I’ve seen tamariki at three, four [years old] without their gums and that’s sad it wasn’t their fault. I’ve seen the end result where a $1.50 pie might be easy but how hard is a Weetbix to make your child and without sugar.

Strategies for reducing junk food intake were provided by participants. For example, the following excerpts were:

> I want [my son] to recognise that sugar isn’t a need because when he gets older he wouldn’t be familiar with the taste so therefore he wouldn’t crave it as what some other tamariki do nowadays.

> Substitute the junk foods for what he [peepi/baby] loves and give him healthy *kai*…[to] be taught how to cook because I’m not a good cook all up. Not just my son’s food, but I’m not a good cook. I love watching cooking shows.
However, a frustrated mother shared about her taane (husband’s) work and his lifestyle kai choices. She says:

He drives, he’s a truckie on the road, so with his upbringing bakery pies, fast food, kind of [the] way for him. I’ll make his lunch and then I get hoha (frustrated).

Ngaa kai hokomaha (supermarket foods)
Mothers shared puuraakau koorero about oranga kai confirmed that kai hokomaha (supermarkets) are places go to provide for their peepi. Kai hokomaha included Countdown, Pak n Save and New World where mothers and whaanau go to buy kai. Some waahine were budget savvy and conscious of prices of foods. While other waahine were aware that homemade kai were required for nutritious meals and dietary needs of their tamariki/mokopuna/peepi. A mother stated:

We have a lot (of food) on hand just from Countdown. The variety of food they have now… [such as] lamb, polenta, couscous, pork.

Kai hokomaha shopping was often tasked with budgeting and finding bargains. One mother expressed how finding a good bargain was helpful when shopping for her whaanau needs. This mother stated:

I have always been price savvy. I am probably the price Nazi at Countdown…I just think you have to be vigilant really and just look for good bargains.

The cost of vegetables in the supermarkets were sometimes cheaper than growing them in a garden. A waahine says:

Mind you with the prices, it’s not bad I mean you can pick up pumpkin for $1.50, and potatoes and greens.

Kai ngaawari (Effects on child health and convenience foods)
Convenience foods were highly favourable amongst waahine Maaori and whaanau. Mothers expressed convenient and cheaper foods package in baby bags and tin foods saved time especially for busy working and stay home mothers.
Some participants’ narratives were:

…Pricewise for six dollars you can get four or five pouches of food and convenience wise in terms of going out shopping or going visiting friends…convenience and economical reasons is probably the reasons why I buy a lot (of kai).

This mother said:

I do spend money on the ready-made kai that is already in the tin because it saves me time.

Often takeaways such as McDonalds were seen as quicker and cheaper to access, which often meant that tuupuna and maatua fed their tamariki/mokopuna/peepi the same whaanau eating habits. A waahine stated:

We like McDonalds too it’s whatever’s quicker and cheaper

5.4.3 Matauranga oranga niho me Oranga kai (Knowledge about oral health and wellbeing and eating well)

This sub-themes is about waahine Maaori knowledge and understanding about oranga niho and oranga kai (eating well). Correspondingly, participants expressed different levels of maatauranga Maaori about oranga niho and eating well. As mentioned earlier about teething, waahine Maaori and whaanau Maaori found different strategies for dealing with teething and looked for other methods to relieve their peepi through to tenuous months of teething.

They’ve got those teething rings, bonjela and this other stuff (to help with teething). I gave him cold carrots to chew on and he liked that. He got over it and threw it away
When we got…Bonjela and she stopped crying!

A kuia commented about tooth brushing and not experiencing tooth brushing at young age in her life time.

I have seen those little advertisements with the toddlers, babies having toothbrushes for their little milk teeth. I’ve never really actually experienced having toothbrushes at a (young) age.
Maatauranga Maaori aahuatanga oranga (knowledge about lifestyle factors)

The sub-theme was Maatauranga Maaori aahuatanga oranga (knowledge about lifestyle factors) which was predominately connected to whaanaungatanga. A common regime for whaanau was whaanaungatanga. Whanaungtanga helped to eliminate the stress of individually feeding baby on their own and helped during meal times. Activities such as eating, tooth brushing were performed with other siblings and whaanau members. Different mothers said:

Maintaining the brushing is important. My husband and I, we do the same thing [brush our teeth]. They have to see their mum and dad brushing their teeth.

I tend to feed her with us. She’s absolutely around us when we are eating. I eat after I have fed her. The [tamariki] are eating at the same time, so we all eat together. It’s what we do.

[Whaanau] put jam on her bread; weetbix loads lots of sugar. My niece, all her teeth have gone. (I) can’t do anything for her.

Encouragement about education and teeth were shared. For example, a waahine Maaori spoke about her mother maintaining and encouraging good oranga niho and having her own teeth in her later years. She stated,

Mum still has hers (own teeth). They’ve always encouraged us about education, your teeth because if you don’t have good teeth you won’t be able to enjoy kai.

Without whaanaungatanga, there was no encouragement and no mechanisms in place for good oranga niho regime. For example, two sisters shared about whaanau upbringing and lack of support about oranga niho. A participant’s sister expressed,

Oral care wasn’t really encouraged by [our parents]. If you wanted to that was great, but if you didn’t want to, well too bad.
Matauranga o Haumarutanga kai (knowledge of food security)
Some participants revealed puurakau about the lack of availability and adequate access to sufficient, safe nutritious food. With the lack of kai or restrictions, waahine and whaanau became creative and strategic about providing quality care and kai that would help sustain a quality healthy and active life for their tamariki/mokopuna. A couple commented:

Making sure we have food in the cupboard or food. Like yesterday I rang him (husband) on his way back from work and said can you stop in and get some pumpkin and some kumara (sweet potato) for baby so it’s just making sure that we’ve always got vegetables in [the cupboard]
So buying the vegetables and the healthy options, I’m mindful of coming that way but will I always go for the healthy option probably not. I’ll just go for the lazy option whatever’s there.

This mother shared her whakaaro and said,

I always pack our lunches. So with her and coming to work, I always pack a lunch. It’s hard though. You’ve got to be on to it (aware). You’ve got to plan ahead. Sometimes it’s whatever you’ve got in the cupboard and you haven’t even done the shopping so it’s looking in the cupboard and finding what can work.

Internet was explored by waahine as a means for finding recipes for peepi:

I do a lot of research on the internet for my baby, what foods to give her and if she is sick, what I should do.

5.5 Puuraakau o Tamariki/Mokopuna ora (Health Service access)

Another key theme was about accessing Tamariki/Mokopuna ora services. This included waahine Maaori having access to oranga niho through Tamariki/mokopuna services, Taakuta niho (dentists), Oranga niho Maaori (Maaori oral health providers), Tamariki child health organisation, Tamariki ora services, kohanga reo or early childhood centres and local wharekura (schools). The sub-themes were:

Tamariki/Mokopuna ora (Well child services), Oranga niho Maaori (access to Maaori oral health services) and Taakuta niho (access to dentist). Maaori providers and external child health workers such as Tamariki child health organisations provided oral health information to waahine Maaori and whaanau.
5.5.1 Tamariki/Mokopuna ora (Well Child Services)

Most of the participants spoke about access to mainstream providers such as well-child health organisation, day care and other well child services. These services provided oral health information, and supportive care for waahine and their whaanau. The importance of having well-child services is to reach out to whaanau who require services for their tamariki/mokopuna about oranga niho.

Urunga ki te Kaupapa tamariki ratonga (access to tamariki child health services)

This sub-theme was about tamariki child health services supporting participants’ to access oral health information and resources. A waahine participant spoke about her teen or teenager unit and having resources made available. She commented:

There’s this one lady there, oh she’s awesome, she’s the one who organises this stuff for us, like getting in [well child service provider] and doing like 2-day courses, like First Aid courses. There’s posters all up on the wall about babies, food charts, and what they should be eating… they are pretty good.

Kaupapa oranga tamariki i mua, a muri i te whaanau mai (Access to Well Child before and after birth)

This sub-theme was about access to well child services prior to and after birth. Waahine Maaori spoke about receiving information packs and resources. A kuia stated,

We got a (resource) pack from Mokopuna ora and [Well child service]

After birth meant that waahine became busy with an array of tasks such as juggling other tamariki in the whaanau activities. A waahine of six-month-old girl twin babies shared that she wanted time out from her 4 year old son to go to day care and stated,

Mondays and Fridays [for my] son (4 year old) [to go today care], give me a bit of break for a few hours.
Follow up from Well-child services were often challenging for waahine in relation to accessing certain times. In one situation, a waahine was not seen by [well child service] due to her movements shifting around different places of the (city). She stated:

[Well child service provider] never visited [my peepi] until he was 4 months. They’re meant to visit for his 2-4 weeks, then his 3 or 4 months, so we missed out.

Urunga ki te Kaupapa oranga niho (Access to oral health services)
Maaori dental services are services that provide support and care for Maaori communities and whaanau. They are Maaori health providers or Hauora services, wharekura and Maaori dental services and health professionals. Most of the participants described local Maaori health providers as the preferred health service for receiving information about oral health for their tamariki/mokopuna. Hauora Maaori providers also offer dental services to young tamariki within these communities.

Regular screening…, [My tamariki] go to the mobile dental truck at schools and I guess so long as its regular (checks) and they keep on top of [brushing their teeth].

5.5.2 Oranga niho Maaori (Access to Maaori oral health services)
Participants revealed that Oranga niho or access to Maaori oral health services came in varied service provisions. Hauora Maaori providers, wharekura and kohanga contributed to community care for young tamariki within Maaori communities. Whaanau spoke about oranga niho services delivered within their communities and often frequently visited by them and older tamariki.
Waahine and whaanau were appreciative of having local dentist or dental therapists\(^5\) provided by Hauora Maaori providers and wharekura as confirmed by this waahine. She stated,

> They make the [tamariki] see the dentist when they do come around to wharekura. There was one time when I had to take my daughter to an appointment. They were very good and my daughter is not scared.

**Hauora Maaori (access to Maaori health providers)**

Most participants shared experiences of their tamariki/mokopuna attending Maaori health providers as favourable places to host information and support for oranga niho and Mokopuna ora services. Maaori Health providers were seen as supporting mokopuna/tamariki around oranga niho. Most of the participants expressed how these services were favourable for their own needs. One waahine said, "We go to Mokopuna ora services".

Participants felt that Hauora Maaori services were culturally acceptable and appropriate services to meet their needs, while other participants had whaanau working as Maaori health workers who would teach about the importance of oranga niho, demonstrate toothbrushing and encourage good regular brushing within the whaanau.

> My Dad works for a [Hauora Maaori service]…he brings into the kohanga [reo] all the oral health, toothpaste.

**Wharekura/kohanga reo (access to wharekura and kohanga reo)**

Most of the participants had an awareness of the available tamariki/mokopuna dental services at their local wharekura and/or kohanga reo. Participants shared experiences of other tamariki accessing these services.

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\(^5\) Funding of community oral health services through Waikato DHB, Manukau DHB and Auckland DHB, PHOs has seen oral health services reaching out to Maaori communities. Dental therapists are usually funded within the mobile oral health services and school including wharekura and kura localities.
A mother of five explained how the dental services were integrated into the kura system and stated,

Through kohanga [reo] and the dentist we have the [mobile Dental unit]. The dentist comes along and teaches the tamariki about how to brush their teeth…pretty much through kohanga and kura they learn everything about oral health.

Another mother said:

Regular screening, [my tamariki] go to the mobile dental truck at schools and I guess so long as its regular (checks) and they keep on top of it [brushing their teeth].

Tangata matatau hauora (access to health professionals)
Most of the participants were engaged with a health professional (dentists, doctors and hospital staff and midwives) for advice and information about tamariki/Mokopuna oranga niho. Participants’ spoke about the need to see a health professional as either a priority or reluctantly not wanting to go at all but in most cases having to go due to tooth pain and/or tooth decay.

5.5.3 Taakuta niho (Access to dentist)

Dentists and dental therapists were seen to be helpful and supportive to waahine Maaori and whaanau with young tamariki in particular those with large whaanau (more than one tamariki). Barriers such as financial and personal (fear) existed for participants and whaanau when accessing the dentist.

Taakuta niho me Kaimahi niho (access to dentist/dental therapist)
A mother recalls her dentist experience had left her in a traumatic state. She shared:

Every time [a whaanau friend] gets pregnant, her teeth corrode, they just drop away. I thought well I better go and get my teeth checked after I had (my peepi). I never went back. I just didn’t like the feeling. Like the dentist did nothing to hurt me, I just didn’t like the sound of the drill. I didn’t like the feeling of him, chipping away. He numbed it but I could still feel it.
Another waahine Maaori wanted to deter her peepi when he grows up to understand what kind of place it is and said:

I want him to know that a dentist is not a cool place and neither should it be a place for to get your teeth operated on….Just visiting and making sure his teeth are ok is all I want him to know a dentist for.

Some participants felt that the dental appointments were often not suitable to meet their needs. One mother stated,

They (dental clinic) rang me about three times. I didn’t want to go in. I’m shocking I just don’t like the dentist not the dentist person I just don’t like the drills it hurts my gum, my mouth. I’ll go. I’d rather get a tattoo. They would have to put me to sleep, shocking.

Dental therapists were reported to be oral health educators and supported mothers and whaanau with regular dental treatment and checks for tamariki in wharekura and kohanga reo. However, a young mother of twins asked about accessing a local dentist. She stated,

Is there somewhere you can enrol and take your kids before they’re of school age to see a dentist or can you just take them into anywhere?

Financial barriers to accessing dental health service were shared by some participants. In one case, a waahine Maaori who had since moved from [city] had experienced her dental care as costly and expensive. This has had an effect on her decision to access dental care for herself. She stated:

It would have been the cost because I have had a wisdom [tooth] taken out and so it could be the cost. I’ve had two wisdom teeth taken out.

A waahine Maaori talked about using her community services card.

I want a few things done for myself because it’s expensive going to those other places but then mind you, you can use the community service cards.

In addition, if dental care was made less expensive for waahine Maaori having tamariki was also reflected upon by these waahine and their whaanau.
Such was the situation for this solo mother. She stated:

I wish I was more financially stable before I considered having children.

**Taakuta (access to doctors)**

Doctors were seen as health professionals dealing with range of tamariki and oral health issues. Participants were concerned when their tamariki/mokopuna were hospitalised for illnesses which impacted on their overall wellbeing. For example, a mother said,

[Peepi, baby’s] getting sick a lot…They don’t actually know what’s wrong with her. She gets quite chesty randomly. She’s had whooping cough and since then she’s just never been 100 percent. I did take her there (to the hospital) but then they sent us home.

**Hohipera (access to hospital)**

Waahine Maaori expressed their own experiences when accessing hospital care. Hohipera (hospitals) were places where waahine Maaori visited to give birth, seeking medical care. For some of the participants they were recruited by a hauora worker on to the larger Te Mana o te Whaanau (larger oral health) project. Some excerpts are captured:

My [peepi] was born on [date]…Born early (with a low birthweight)…premature delivery, the doctors they call it help. I had high blood pressure, hypertension, stress out material and [peepi] was dipping on heart rate, so they had to do a ‘C’ (caesarean) section.

A grandmother spoke about her daughter ‘giving birth to her mokopuna:

She had a horrible birth…no one at the hospital was helping her.

A waahine Maaori expressed her frustration about seeking medical advice and said:

…9 times out of 10 you do have to see a doctor because you’re not a doctor.

The TMoTW offered for this mother:

Just experiencing with my oldest daughters prematurity and the way her teeth have come out because we’ve had no assistance through oral health through like your roopu.
5.6 Ngaa tukunga iho o Te Niho Taniwha (Key results)

TNT iwi Kaupapa Maaori model was developed as part of Kaupapa Waikato-Tainui to bring together a theoretical framework for the Waikato-Tainui iwi tribe. The TNT model comprises of nine principles which have been described in the previous chapter 4 Te Koorero tuawha - methodology and methods (section 4.2). The TNT model was first adapted to the oral health setting to address reducing ECC for tamariki/peepi/mokopuna in the larger study TMoTW of which the researcher contributed to the study. This model provides a way to analyse the themes and data. Te Niho Taniwha framework using the nine principles of Kiingitanga, Waikatotanga, Hinengaro, Wairuatanga, Whakapapa, Mana, Whaanaungatanga, Mauri and Taha Tinana were used to provide key results and example excerpts for this study.
Table 5 below provides the key results and examples of experiences from waahine Maaori and whaanau participants’ puuraakau or experiences of child oral health associated to each of the nine principles of the TNT model.

Table 5: TNT (Iwi Kaupapa Maaori model)

<table>
<thead>
<tr>
<th>Kaupapa Maaori – Te Niho Taniwha (TNT) approach</th>
<th>Key Results</th>
<th>Experience (Quotes from Waahine Maaori and whaanau)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kingitanga (Empowerment)</td>
<td>Empowerment of waahine Maaori and whaanau. Background of waahine Maaori. Waahine led busy lives and were raising young babies [peepi] often studying or working. Past experiences and environmental factors of oral health.</td>
<td>[Empowerment] The teachers bring out the best in us really and help us get through everything and it’s not even just school stuff like they help us out of school they give us bus cards to get here like money for transport everything money for other courses we want to go to just everything’s so...like they help us out so much. [Past experience] My dad gave me coke when I was six months old and my Dad will give [my son] biscuits for lunch…Mum said I was the junk food baby [Environment] My [whaanau] work for an ice cream [organisation] Aunty works for the lolly factory.</td>
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<tr>
<td>2.Waikatotanga (location)</td>
<td>Location of the waahine Maaori and whaanau play a role in nurturing their peepi, through traditional cultural connectedness and identity, access to health care services, availability to food security, and access to oranga kai. Traditional and whaanau context, values and beliefs.</td>
<td>I come from [small rural town in Waikato]. Born and bred. My children have been raised at the paa (marae, place of gathering) and my tamariki go to wharekura. My eldest son, I whaangaii to my Aunty...I was in Aussie at the time...have since returned home to [rural Waikato town]. All the nannies, they ask, ‘do you want me to push her teeth out?’ You know, they push the gums. They did it obviously in their time. What's so wrong about it doing it now?</td>
</tr>
<tr>
<td>3.Hinengaro (mind)</td>
<td>Mind, fear and emotional state. Waahine Maaori were able to express their feelings and emotions about their own oral health or whaanau.</td>
<td>Every time [a whaanau friend] gets pregnant, her teeth corrode, they just drop away. I thought well I better go and get my teeth checked after I had (my peepi). I never went back. I just didn’t like the feeling. Like the dentist did nothing to hurt me, I just didn’t like the sound of the drill. I didn’t like the feeling of him, chipping away. He numbed it but I could still feel it. It would have been the cost because I have had a wisdom [tooth] taken out and so it could be the cost. I’ve had two wisdom teeth taken out. They make the [tamariki] see the dentist when they do come around to wharekura. There was one time when I had to take my daughter to an appointment. They were very good and my daughter is not scared. My eldest son [8 years old] has bad decay. He’s just bad all over. He’s not really worried about his teeth only when he goes to birthday parties.</td>
</tr>
<tr>
<td>4. Wairuatanga (spiritual connection)</td>
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<td>Wairuatanga involves tuupuna present when visiting the dentist is to be able to remove fear when going into a strange and unfamiliar surroundings that Maaori patients encounter at times. Tuupuna are there as protectors and wairua is to connect with tuupuna to face the fear of what is about to happen to them. Wairuatanga was about the practice of karakia.</td>
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<tr>
<td>It’s okay; you have your [tuupuna] ancestors with you. I’m always happy to take part in research that is going to help future generations, our young mums...[karakia in te reo Maaori followed]</td>
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<tr>
<th>5. Whakapapa (Ancestral Connections)</th>
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<tbody>
<tr>
<td>Heritage, cultural connectedness, transfer whaanau connections between hapuu and iwi. Whakapapa was also about the oral health status of waahine Maaori and other whaanau.</td>
</tr>
<tr>
<td>Whaanau are everywhere. There is lots of whaanau. Our baby [peepi], she’s lucky to have all her brothers, sisters, cousins, aunties and uncles around her. All our family [have] got [bad decay] on our teeth. I have seen my parents experience decaying teeth and having them replaced with false teeth, or go through pain. I make a conscious decision that I don’t want the same thing happen for my baby [peepi]. I don’t want [my son’s] teeth to get any cavities or holes in them like sooner than what he should because I’ve got a lot of cavities which I need to get done.</td>
</tr>
</tbody>
</table>
| 6. Mana (Power) | Mana waahine (MW) – waahine Maori, grandmothers, sisters, aunties taking control of peepi’s oral health  
Mana taane (MT) – grandfathers, fathers, and uncles can contribute to their oral health of their peepi including having a stance on fluoride issues. | Oral health should be paid more attention...our Maori children don’t seem to think it’s a big thing. Some Maori children not all, but it would be good for the future for our Maori children to know how important it is, that way they won’t be having their tooth pulled out so early or teeth trouble when they get older. (MW)  
It's a big issue (fluoride) because the majority of the people living in [urban area] do want it. It affects the poor, and families. (MT) |
| 7. Whaanaungatanga (Relationships) | Whaanaungatanga- Tuakana/teina (older/younger), having whaanau and identifying good relationships to help support Maori women and whaanau in the nurturing and guidance of tamariki/mokopuna. Relationships may also include access to dental services such as kohanga reo and wharekura. | Whaanaungatanga meant doing things together as a whaanau (family), where young ones watched their elder siblings brushing their teeth (tuakana-teina).  
Through kohanga [reo] and the dentist we have the [mobile Dental unit]. The dentist comes along and teaches the tamariki about how to brush their teeth...pretty much through kohanga [reo] and [whare]kura they learn [everything about oral health]. |
Mauri is the "Awakening" or essence of life. 3 types of Mauri:

Mauri noho – left dormant – when there is a resistance for change.

Mauri oho – the awakening. Mauri oho can relate active activities such as tooth brushing, eating well and regular visits to the dentist or dental therapists.

Mauri ora - Maintaining and encouraging good oral hygiene at home. Promotes positive whaanau, Maori communities, hapuu and iwi.

...we didn’t look after our teeth when we were young so we are making sure our children do it.

Maintaining the brushing is important. My husband and I, we do the same thing [brush our teeth]. They have to see their mum and dad brushing their teeth.

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6 Personal communication with Dr Alayne Mikaere-Hall on 10 August 2017 about mauri. Prominent Maaori authors have contributed works about mauri (Durie (2001, 2004), Mead. Metge (1995). Barlow (2001), Hohepa, Parker and Biggs,).
| 9. Taha Tinana  
(physical body) | Tinana provides the physical wellbeing. Waahine Maaori and whaanau were encouraged to attain responsibility to nurture their peepi oral health care or oranga niho.  
Accessing dental care, treatment and health and wellbeing through services is considered important. Having regular dental checks; also eating well (or not so well) and budgeting. | My [tamariki] are pretty good at brushing their teeth but they may not brush it morning and night, maybe not all the time. If not in the morning, they will at night, if not at night, they may brush it in the morning.  
Regular screening, [my tamariki] go to the mobile dental truck at schools and I guess so long as its regular (checks) and they keep on top of [brushing their teeth].  
[Good tooth brushing] starts before [peepi] teeth grow so don’t go giving them jam and stuff, lollies.” “Her other nan (grandmother) when she came to visit you know [peepi] was sucking on chocolate biscuits.  
I’ve had bad experiences of kids drinking juices and rot their teeth and stuff. I've actually seen it and my sisters who are nannies themselves and they're really devastated that their moko[puna] had developed all her milk teeth had gone rotten.  
I have always been price savvy. I am probably the price Nazi at Countdown…I just think you have to be vigilant really and just look for good bargains. |
5.7 Waahine Maaori expression within kawa/tikanga: TNT

The methodological iwi Kaupapa Maaori approach utilised the Te Niho Taniwha Waikato-Tainui tribal model. The model provided a unique tribal approach for analysis of the transcripts for Maaori women and whaanau participants’ experiences and attitudes towards ECC. The nine core principles of this model are: Kiingitanga, Waikatotanga, Hinengaro, Wairuatanga, Whakapapa, Mana, Whaanaungatanga, Mauri and Taha Tinana. Given that the study setting was Waikato-Tainui it was appropriate to use an iwi Kaupapa Maaori conceptual model. I now discuss this model and its principles and the relevance for this study.

5.7.1 Kiingitanga (chieftainship or empowerment)

The Kiingitanga principle is defined as chieftainship or empowerment. Participants spoke about Kiingitanga in several ways; for example, Kiingitanga was about whaanau taking a holistic approach to ECC, traditional approaches and knowledge transfer, and leadership qualities possessed by the women and whaanau. Participants were seen as role models for the new generation of tamariki and mokopuna. The research, therefore, suggests that with parenting and services that allow them grow and develop, the next generation will be leaders and role models, who can have access to better information, health services and oranga kai. There is a need to nurture tamariki and mokopuna in an environment that supports their cultural and health needs.
5.7.2 Waikatotanga (identity, location)

Waikatotanga is about identity and location. The research revealed that Waikatotanga meant different locations, places and spaces such as marae, kohanga reo and local wharekura, Māori providers, tamariki ora and childcare centre. Participants’ shared experiences of where they were nurtured, sometimes identified as uukaipoo the place of nurture. Participants’ came from diverse cultures, however whakapapa linked them to being Māori and connectedness to whaanau, hapuu and iwi. They expressed whakapapa to Waikato-Tainui; although some participants were mataawaka with connections to iwi such as Te Arawa, Ngai Tahu and other affiliations.

Of interest were the intercultural marriages or partnerships with couples from other countries, whakapapa from Pacific lands, including Samoa. This mixed marriage relationship meant that tamariki were nurtured in different, yet similar, cultural contexts and languages. Service providers, working with families or whaanau that host cultural backgrounds, need to deliver information about ECC in a way that supports these different cultures.

5.7.3 Hinengaro (mind)

Hinengaro addresses the mind and emotions; and demonstrates positive behaviours about oranga niho for tamariki and mokopuna. The research highlights the participants’ strengths through leadership and role modelling qualities within their own whaanau and wider Māori communities, hapuu and iwi. They are leaders in their own homes, marae, places of cultural significance, kohanga reo, wharekura who will transfer knowledge to their tamariki/peepi and whaanau.
The delivery of oral health messages adds value to the whole whaanau by encouraging tamariki to practice oral hygiene at homes, in schools, kura kaupapa, marae and places where whaanau access healthcare and dental and other services and organisations that support the prevention of ECC. Participants spoke of unsupportive organisations and how they had to actively become resilient in order to cope in difficult and stressful situations. They were strong minded when they had to see dental organisations.

Services that were friendly and culturally appropriate in meeting participants’ needs for oranga niho showed aroha and respect for waahine Maaori and whaanau. In some instances, mothers had experiences, having older children who had experienced bad decay and how they had encountered barriers when seeking treatment in the health system.

The exposure to many barriers, fears and cost, resulted in not wanting to have the same experience happen again. These barriers accumulate over time and, along with racism, multiple the burdening effects of ECC amongst Maaori communities. Nevertheless, the participants dealt with the challenges of raising their tamariki/peepi/mokopuna in low socioeconomic and poverty driven areas; so much so, that struggling daily was something of the norm for them.

ECC occurs when environments affect communities that are poor and low socio-economic. Without the necessary political changes, this concerning issue will continue to increase in Aotearoa/ New Zealand society.
5.7.4 Wairuatanga (spirituality, spiritual essence)

There is much that can be learnt from the principle of Wairuatanga, which in itself is seen as complex and has broader meaning and definition beyond spirituality and/or spiritual essence. The research findings and use of methods was wairua in itself. The researcher bias was that wairuatanga brought the participants together and the puuraakau that were collected were shared. Wairuatanga may mean having karakia if a person has fear or mistrust when going to see a dentist or practicing karakia for the safety of generations to come. Broadly, in Te Ao Maaori, wairuatanga is linked closely to tapu and noa. Te reo Maaori has wider meanings and linked to other tikanga Maaori and values.

5.7.5 Whakapapa (genealogy and ancestry)

Whakapapa occurs when whaanau are culturally connected and able to self-identify as Maaori ethnicity or have genealogy ties to marae, hapuu or iwi. Participants had strong whakapapa links to Waikato-Tainui and other hapuu and iwi. Waikato-Tainui was home for them – families had lived there for many years and had not moved elsewhere. However, for some participants, being far away from their whenua and place of nurture or uukaipoo meant they had to be resourceful and know their whakapapa links to other urban areas such as a grandmother participant who had moved from a small rural town due to her illness to be closer to hospital and, as a consequence, uplifted her whaanau to raise them in South Auckland.

The findings also revealed that participants’ whakapapa meant connection to their cultural identity and desire to learn te reo and whakapapa, knowing where they are from and cultural connectedness to marae, hapuu, iwi. Whakapapa was also critical in the whaanaungatanga between the researcher and the participant in making a connection. MI was about building rapport and trust with the participants; however, the researcher’s
bias revealed that the trust and relationships became apparent through kanohi-ki-te-kanohi interviews when sharing whakapapa was requested by participants to identify a connection. The researcher identified that the majority of participants were already known to her either through whakapapa or familial links. Whakapapa connectedness and whanaungatanga made it easier to ask questions of participants in the interviews, and provided a safe way to understand and connect with them.

5.8.6 Mana (power)

Mana refers to power of waahine and power of taane. Participants recounted ways in which Mana gave meaningful ways for them, which in turn motivated them to encourage tamariki/peepi/mokopuna around oranga niho. The demonstrated evidence revealed that there was a trust and giving over of power relationship between them and whaanau as nurturers of peepi. Mana meant they were listened to and respected in their roles of nurture, working mothers and studying mothers, carrying out busy schedules, juggling and balancing time spent with whaanau.

Mana waahine enabled waahine Maaori to go about their daily and private lives without disruption. They gave of their time and shared puuraakau that were invaluable and, more importantly, allowed me into their homes, places and spaces. I recalled my encounters with all the women and whaanau. One memorable example was a mother of nine who had total control over her tamariki and who behaved quietly as the interview continued. This particular occasion meant folding clothes with the waahine, her brother with her tamariki, while interviewing her and being aware of the surroundings in a respectful way. The researcher’s field notes provide an insight into this interview:

We all gathered in her whare (home), we sat on her lounge floor, we did whaanaungatanga and found she was from… She introduced me to her brother and we talked…we ended up folding washing together while exchanging koorero…her tamariki played outside and her peepi slept.
Mana was about making the relationship mutual and respectful, and keeping her mana was intact. The research adds to the importance of maintaining respect and trust. Indigenous communities are well researched and failure of research happens when researchers impose on participants in ways that are not helpful and promote disengagement. This research adds to the literature around keeping Indigenous women safe in the research process and building on Mana waahine, Mana taane and whaanau principles.

5.7.7 Whaanaungatanga (relationships)

Whaanaungatanga is about whaanau and relationships. The research findings revealed that whaanaungatanga is linked to oral health through whaanau sharing ideas. For example, whaanau members who work in hauora can share information and oral health awareness about oral hygiene at home and/or food preparation ideas and ways of nurturing tamariki/peepi/mokopuna. Another form of whaanaungatanga is tuakana/teina where the older siblings will help the younger siblings, as demonstrated in sharing a tooth brushing routine.

Whaanaungatanga was about coming together to work for the benefit of the whole whaanau. Participants spoke about whaanau members sharing the roles and responsibilities and how they supported each other; for example, a busy mother away at work, other whaanau members or a partner who works nightshift and sharing the role of nurture and caring of their tamariki and peepi. The notion of whaanaungatanga is not new for whaanau Maaori, however, importantly is the embracing of strengths and capabilities which work for Maaori women and whaanau coming together and confronting adversity in challenging times of stress.
Participants’ shared puuraakau of experience of being raised on marae and communities that nurtured whaanau and whaanaungatanga. They shared about teaching traditional practices to their own tamariki in ways they were taught from tuupuna. They also talked about kawa/tikanga Maaori practices and whaanau gathering in community gardens, growing enough to feed the whaanau, and several experiences of whaanau working together to go fishing, eeling, or gathering of kai which was seen to be a part of their whaanau hauora (health and wellbeing).

Positive experiences were gained from the interviews and whaanaungatanga was seen as a core principle in the home and in the nurturing practices of raising young tamariki and mokopuna. In traditional times, tuupuna hunted and gathered, grew huarakau and hua whenua in whaanau or community gardens. Metge (1995) highly considered kaumaatua to have an integral role in the process of atawhai (caring), where children are cared for amongst whaanau who may not necessarily be the birth parents.

Kaumatua and kuia have a significant role to play in the atawhai traditional practice. Participants spoke highly of being entrenched in Maaori culture and having their tamariki/peepi/mokopuna learning and being around kaumaatua and kuia. The role of Kaumaatua has been discussed by Metge (1995) stating,

Senior relatives often play a key role in the transfer of children within the whaanau even when they do not atawhai them themselves (p.232).

Participants expressed how they felt that they were culturally welcomed in places such as marae, kohanga reo and wharekura. These significant places were seen as ako or learning places for cultural traditional knowledge for all Maaori; however more so for their tamariki/peepi/mokopuna – the next generation and leaders of tomorrow.
**5.7.8 Mauri (life principle, life force, vital essence)**

Mauri is the life principle or life force and vital essence and includes three states: Mauri noho, Mauri oho and Mauri ora. In Waikato-Tainui, the term Mauri is used:

- **LIFE FORCE.** Some hold the view that both animate (living) and inanimate (non-living – e.g. rocks) objects have mauri. Waikato-Tainui is intrinsically linked to the environment and so the mauri of the environment effects and is affected by the mauri of Waikato-Tainui. Having an effect on the environment’s mauri has a corresponding effect on the mauri of Waikato-Tainui.

In this study, Mauri noho occurred when tamariki were not provided with optimal dental care due to lack of information, fear or prohibitive cost. Mauri noho was also about being ready for change, similar to the MI technique of readiness for changing behaviour. Participants also gave examples of Mauri oho when doing activities that helped them achieve oranga niho. This was expressed by participants as regular tooth brushing, receiving dental care from local SDS, dentist, local hauora provider, dental assistant home visits, plunket and other services.

They commented that helpful services and supportive health professionals aided and helped to motivate them to seek better quality care services. Participants spoke about Maaori maternities, motherhood, parenthood, and even grandparenthood, as being a positive experience for them, but simultaneously stressful and challenging.

Mauri ora was about innovative strategies and strengths that participant’s possessed and making positive change for the whole whaanau and generations to come. Participants felt strategies for positive change were important, in ways which meant they were empowered and self-seeking about oral health hygiene such as information, access to quality services and health professionals and change in lifestyle to reduce ECC.
5.7.9 Taha Tinana (Physical body)

ECC is a child health disease which affects the tinana and is a global public issue. The research findings encompass whaanau solutions and strategies to help prevent the burdening illness that exists for tamariki Maaori. Participants spoke about being whakamaa about their own personal appearance and hauora. Whakamaa was described as having tooth loss, loss of confidence, not being able to chew food, lack of career choices, unemployment and being teased at a young age by other tamariki to adulthood. The research contributes to the literature about oral health and the disadvantages of having dental decay.

The waahine Maaori and whaanau participants shared their hopes and aspirations of a better future for their tamariki/peepi/mokopuna. A MI tool was used to ask about the future; for example, what would you like to see when your peepi reaches 5 years old, 10 years, 15 years or older? Participants’ responses were varied, but most desired better quality oral healthcare for their tamariki and whaanau as a whole.

Overall the research highlighted many barriers encountered by participants to achieving optimal oral health for them and their tamariki/peepi/mokopuna. They felt health providers needed to play a bigger role in the way they deliver services to women and whaanau who have lack of knowledge and information about oral hygiene and access to healthcare and affordable oranga kai.

The next page 111 looks at the koorero from Tangata Moohio (Key informant interviews)
5.8 Tangata moohio (Key Informant interviews)

Key Informant 1 – Joyce Maipi

1. Tell me a little bit about yourself (your background)
   On my dad’s side I am Waikato-Tainui. My hapuu are Ngaati Whawhakia and Ngaati Mahuta. My marae are Te Ohaaki and Waahi Pa. I am a mother of 3 and grandmother to two moko[puna]. I am enrolled in the MBA programme through Waikato - University in the cohort of Hopuhopu – Waikato-Tainui College of Research and Development (and it is an honour). I sit as the Te Ohaaki representative to Te Kauhanganui. I have ambitions to own and manage commercial gardens utilising Marae land in Huntly upon completing my MBA.

2. What do you enjoy about your profession?
   Working in health is challenging. From a Maaori perspective health and wellbeing is linked directly to spiritual, emotional and cultural wellbeing. I enjoy implementing new ways of making people healthy i.e. pathways to support, medication are well managed. I enjoy the people who understand holistic health or applying a whaanau ora approach to support people – there are many in the profession who truly care about people and their wellbeing.

3. Tell me about your knowledge of Motivational Interviewing? What do you like about MI?
   MI has been introduced as a new ‘interviewing’ technique but Maaori have been doing it as normal. It is engaging, compassionate and engenders trust by the interviewee. MI must be conducted based on good common sense. “Do you trust the messenger giving the message”? Any message can be delivered it all depends on who’s delivering it hence MI must have integrity and be principled based. It’s no good conducting MI if it’s done expecting a particular outcome. MI is aligned to the person being interviewed to allow true meaning to their thoughts/expectations – not for MI to have a preconceived agenda that it requires from its interviews. There must be trust and honouring of the interviewee in the first instance.

4. How long have you worked with indigenous peoples? Maaori?
   A life time. My passion and direction in life has always to work with Maori and within indigenous frameworks and networks. My professional world has entirely been with Maaori – I have little experience working with non-Maori. I prefer it to stay this way for the rest of my life.
5. Do you think MI has benefited indigenous communities? Maaori?
I believe MI have been a part of Indigenous communities as a part of our cultural principles of manaakitanga. MI is not new to Indigenous community as its normal practise of engaging and establishing relationships. In the Maaori world it is normal to connect with each other through whakapapa – the usual first question to another Maaori is not what is your name – its where you from? From the initial question of where you from – Maaori tend to use whakapapa and blood ties to connect to the stranger/or person whom they first meet. MI has been packaged up by western ideology but essentially it is indigenous in format and intent.

6. Are there any challenges or learnings when working in these communities?
When working in Maaori communities, it’s important the messenger is known, has credibility or at least links in to the community. If strangers approach Maaori communities they therefore need to have a Maaori liaison person and that the STRANGER is under the mantle of the ‘local’. The stranger is only able to engage based on the local person – they don’t use the local person to get in the ‘door or community’ then disregard the local. The Stranger is exactly that – a stranger in the community. Until the stranger earns trust and confidence within the community – only then they can expect to get information.

7. Is there anything else you would like to say?
I will be prepared to facilitate a workshop for you and your team in the TNT framework for Oranga Niho. Give me a date if you want to do a workshop (6 -10 participants).
Key informant 2 – Dr. Keri Bolton-Oetzel

1. Tell me a little bit about your background?
   My background is in counselling, psychology and public health. I have a wide range of professional experiences -- ranging from clinical practice with youth and families, researcher, and university professor. While I am no longer a university professor, I am still engaged in many research projects that look at how motivational interviewing is implemented in practice, and across diverse ethnic cultures.

2. What do you enjoy about your profession?
   I enjoy knowing that the work I do is absolutely useful to individuals, families, and communities. I really enjoy getting to know people and learning from people. My work allows me to walk alongside so many people from around the world, and I deeply appreciate every opportunity that I have to meet with people and engage in meaningful conversations.

3. Tell me about your knowledge of Motivational Interviewing (MI)? What do you like about MI?
   I love that motivational interviewing is a simply complex conversation. It is such a refreshing way to be -- professionally and personally. There is no pressure to “fix” anything. It allows to me get to know people and understand them from their perspective. People can tell me anything and everything that is important to them -- what a privilege it is, an honour, for me to be invited into someone’s life.

4. Have you worked with Indigenous peoples? Maaori?
   Yes, I have had the great honour to work alongside indigenous people and communities. I am originally from America, and in the 14 years prior to coming to New Zealand, I lived and worked in Albuquerque, New Mexico, USA. New Mexico is a “minority-majority” State which means that there are more ethnic minorities than White people in that State. I spent many years working within Native American/American Indian communities.

   Specifically, I worked in these communities to support their efforts of improving the health of their people (reducing drug & alcohol use, reducing diabetes and hypertension, and improving food and activity choices). Together, we collaborated on numerous projects, spanning many years, that would support their efforts of improving health while teaching their Indigenous and non-Indigenous providers, community members, and tribal leaders motivational interviewing.

   In my short time in New Zealand, I have had the honour of working alongside Maaori people and communities as well. On a personal level, I am very engaged with the Maaori people within my community. Through these experiences, I have had the opportunity to enrol in local language classes over the past two years (currently I am in full immersion Te Reo two days per week), and I spend a great deal of time on my local marae.
These experiences greatly support my desire for understanding of this beautiful culture, the history (especially of the local iwi), and the people. Every day I gain a better understanding, and have new opportunities to better understand the context in which Māori people live. On a professional level, I have had the honour of working with organisations that employ Māori people, interact with, and provide services to Māori people and communities. I have worked with organisations such as NZ Department of Corrections, Quitline New Zealand, Waikato [District Health Board] DHB, and the NZ Rural General Practice Network Conference. My work with these local organisations has allowed me to share my knowledge of MI within a culturally relevant context, with an understanding of how MI fits within Māori communities.

5. How has MI benefited Indigenous communities? Māori?
We have absolutely seen the benefits of motivational interviewing within Indigenous communities. Because MI is designed quite simply as a facilitation of a conversation, as opposed to ‘fixing’ someone or ‘fixing’ a problem, my goal as a practitioner is to ‘understand why people are at where they are at, without judgement.’ When a practitioner engages in a conversation with the intention to listen, as opposed to fix, we see individuals (clients, patients, communities) take on the role of making decisions and making changes for themselves. We have implemented MI in work within Indigenous communities world-wide and have seen benefits in areas such as decreased drug and alcohol use, improved patient/provider relationships, improved health outcomes such as BMI (body mass index), improved self-care for diabetes, and improved outcomes for people with hypertension. I can only echo what other New Zealand scholars have said. We don't yet have any clinical trial data on the implementation of MI within Māori communities. What we do have is 1) a vast knowledge base that MI is very effective in improving health outcomes within Indigenous communities so we can hope and assume that we will find the same results within Māori communities, and 2) we have anecdotal evidence that MI is beneficial in Māori communities (practitioners tell stories of how MI is working within their practice within Māori communities).

6. Are there any challenges or learnings when working in these communities?
The beautiful piece of MI is that it is culturally relevant. When we sit with someone and ask them to share their story, we are not making any assumptions about culture, religion, health, values, and priorities. We are asking the person beside us to teach us what is important to him/her. And then we listen to what they say. Listening with an open mind and heart is such a powerful gift to share.

7. Is there anything else you would like to say?
No, thank you. Please let me know if there is something that wasn't answered in a way that is useful for you, or if you need clarification.
5.6 Whakaraapopoto (Summary)

This chapter identified the overarching theme as Mokopuna ora (Wellness of future generation), which draws on Kaupapa Maaori practices for achieving positive oranga niho for future tamariki/mokopuna. Puuraakau gave meaningful voice for waahine Maaori and their whaanau. Traditional practices and cultural connectedness were seen as important. Barriers to access such as financial barriers, structural barriers, and personal barriers of whakamaa (fear) experiences meant waahine, whaanau and tamariki/mokopuna had bad experiences and limited access to quality oranga niho. However, most participants found that positive experiences came from whaanau being vigilant about oral health care, tooth-brushing and maintain good nutritional habits. The findings revealed that often tuupuna (grandparents) and extended whaanau acted as kaitiaki or nurturers of oranga niho for their tamariki/mokopuna, while tuupuna and extended whaanau members were spoil their mokopuna with aroha with choices that inhibited positive child teeth growth often hindered through adverse nutritional effects of child health through sweets and non-tooth friendly kai (food). The two key informant interviews allowed deeper enriching koorero about Kaupapa Maaori, MI, and oranga niho
Chapter Six: Te Koorero Tuaono- Discussion

Mokopuna ora, Ka too te kakanoo, 
ka whakapuawai, ka poipoi ake, 
Ka whaanau mai te peepi ki teetahi whaanau 
Ka kitea te peepi hei taaonga, ehara mai i teetahi mai te whaanau ka kitea te 
tamaiti te taonga. 
Te Ao Maaori, Mokopuna ora, Ukaipoo 
Ka whakapuawai ngaa tamariki, peepi, mokopuna 
ki Te Ao Hurihuri 

Mokopuna ora is the wellness of future generations 
Future generations, developing, growing, nurturing. 
A child is born to families who see 
the potential of child as a gift. 
The Maaori world, wellbeing of future generations to come, a place of nurturing 
The creation of children, grandchildren 
into the living world 
(Berryman, 2018)

Whakamaaramatanga (translation): A composed ruri (poem) by the 
researcher was composed for this thesis. The words depict the aspirations 
of a better future generations to come.

6.0 Timatanga (Introduction)

The purpose of this study was to identify the experiences of waahine 
Maaori within a RCT to improve the oral health of their peepi. This study 
aimed to better understand the knowledge of, attitudes toward, and 
practice of waahine Maaori for the oral health for their peepi. Furthermore, 
this study sought to understand whether waahine Maaori were able to 
express their experiences and understanding within kawa/tikanga Maaori? 
This research has brought waahine Maaori and whaanau voices to the 
fore by focussing on their experiences and attitudes regarding oral health 
or, more broadly, ECC.

Maaori people, in particular women and children, continue to experience 
inequities in healthcare Wilson (2008); and in oral health thus the need to 
better understand Maaori women’s experiences of oranga niho and ECC. 
This research revealed that waahine Maaori and whaanau strengths and
strategies for reducing ECC are linked to holistic and culturally appropriate access across the domains of taonga tuku iho traditional knowledge, tamariki ora quality information and healthcare, and oranga kai quality healthy food. As noted earlier in chapter 3 the literature review, there are a number of factors that impede Maaori women and children from accessing quality healthcare. Improving ECC requires not only improvements in access to quality health services. ECC occurs when social and physical environment impact on the lives and health outcomes of Indigenous children, therefore solutions to ECC is complex and challenging.

6.1 Ngaa tukunga iho (Key results)

The findings revealed key results in three themes 1) Taonga tuku iho; 2) Oranga kai and 3) Tamariki/Mokopuna ora services. Taonga tuku iho is about cultural heritage, cultural connectedness and traditional knowledge transfer. Tamariki Ora is about access to health services including health professionals, doctors and dentists. Oranga kai is having access to good kai or food. Nutritional food helps to prevent oral health decay. The results reaffirmed that waahine Maaori and whaanau maintain a genuine interest in their tamariki/peepi/mokopuna oranga niho wellbeing. The waahine and whaanau participants place high importance on actively engaging in positive mokopuna ora.

Strategies for attaining mokopuna ora came in the form of traditional practices and shared knowledge through tuupuna/kaumaatua/kuia teachings while others practices of tuakana/teina, rangatiratanga (leadership), role modelling, and promotion of healthy lifestyles were seen to be favourable and achievable for them. When challenges were presented to whaanau or health services mostly by outside influences, health professionals, hospitals, barriers, these mothers and their babies were wary and resisted the accessing care. Oral health was seen as
essential to waahine and whaanau holistic needs for their tamariki/peepi/mokopuna and to achieve Mokopuna ora.

Tuupuna, taane Maaori, whaanau Maaori were seen as nurturers and protectors of oral health for the tamariki/peepi/mokopuna. Knowledge sharing comes in traditional practices, informed knowledge about oral health care through kohanga reo, wharekura, tamariki ora, whaanau who work in hauora/health services, visits from health professionals and visits to the dentist.

There does exist barriers to seeking oral health which is not only through lack of access to information and dental treatment, but the structural, personal, environmental barriers including racism that appear to exist within the lives of these women and whaanau. They are resilient to seek ways in which they seek positive oral health outcomes, and seek behavioural changes for tamariki/peepi/mokopuna.

6.2  Ngaa whirikoka me ngaa whekowheko o ngaa kaupapa arahi (Strengths and Limitations of the research methods)

Ngaa whirikoka (Strengths)

The research design is unique in that it brings together Kaupapa Maaori methodological and methods when engaging with Maaori whaanau in a RCT study utilising Mana waahine, Mana taane, whaanau, Kaupapa Maaori practices and principles and an analysis iwi model Te Niho Taniwha approach. The RCT study recruited and engaged with a diverse group of waahine Maaori and whaanau Maaori, including taane Maaori (fathers), tuupuna (grandparents) and the extended whaanau, which provided a diverse range of experiences about oral health perspectives about the oral health for tamariki/peepi/mokopuna.
The randomised selection of a sub-sample of participants for this thesis provided strength to focus on a unique selection of whaanau and minimised selection bias. Utilising Kaupapa Maaori philosophical approaches, such as puuraakau and mana waahine, meant that waahine Maaori and whaanau were centralised in the research study and helped achieve a nuanced understanding of Indigenous Maaori experiences and attitudes toward ECC.

In this study, Waikato-Tainui tikanga Maaori protocol was adhered to, because the researcher having connections and whakapapa links to Waikato-Tainui. Participants were engaged in the kanohi-ki-te-kanohi interviews and shared their experiences and perceptions about oranga niho and ways in which they nurtured their tamariki/peepi/mokopuna. KMR promotes whaanaungatanga as a way of inclusion of other whaanau members. KMR allows elders to support the process of the research from start to completion.

In this study, a kuia from Waikato-Tainui acted as a support person for the researcher at the start to the end of the research providing kawa/tikanga advice at certain points of the study. The tautoko whaanau support acted as a similar support in the preparation of the study with past and current work colleagues from Waikato DHB, Waikato-Tainui and Taupua Waiora at AUT who offered shared knowledge about this kaupapa of reducing ECC. Another strength is good qualitative research allows participants to have voice, therefore Indigenous Maaori voice were heard in this study.

Mokopuna ora is about the wellbeing of future generations and encompasses a collective Te Ao Maaori view of whaanau collectively taking care of young tamariki and mokopuna. The women participants in this study were caring and nurturing mothers or whaanau members, who had supportive caregivers to help raise their tamariki/peepi/mokopuna peepi. Mana wahine is about power for Maaori women. Following the
disruption of Maaori women through colonisation, there have been a strong resurgence for Maaori women to have voice. Ani Mikaere discusses the power imbalances between Maaori women and Maaori men, the challenges for Maaori people and those left vulnerable through the devastation effect of colonisation (Mikaere, 2017).

Both (Gabel, 2013) and (Murphy, 2011) signify the devastating effects of colonisation of Maaori women, mana waahine and whaanau structures. They reaffirm that colonisation on Maaori women and motherhood had a detrimental impact on traditional empowerment and healthy philosophy for Maaori women and whaanau. The findings from (Gabel, 2013) thesis confirmed that Maaori women do in fact hold strong to traditional ways and practices, and colonisation is subtle Gabel (2013) shared an experience of tamariki raised in childcare centres when the mother or parents are working. She found that for some participants this was seen as accepted, however for other whaanau, kohanga reo and teaching tamariki in traditional and having access to tamariki ora services when striving for healthy ways of living.

In the current study, waahine Maaori and whaanau participants’ expressed how their tamariki/peepi/mokopuna were nurtured by a range of whaanau members (grandparents, fathers, aunt, and uncle and extended whaanau). This whaanau ora approach is customary practice for Maaori people and is common practice.
**Ngaa whekowheko (Limitations)**

The limitations of this study did allow Kaupapa Maaori approaches to occur, yet challenges within the RCT study was encountered by the researcher. The researcher was given an MI intervention to use to engage with waahine Maaori and whaanau participants but found KMR principles were often compromised within the RCT study. For example, KMR meant the research was fluid and flexible such as interchanging with MI and Kaupapa Maaori techniques, delivering positive messages to participants, whakarongo (listening), being respectful and manaakitanga, kanohi-ki-te-kanohi, and whaanaungatanga.

In contrast, MI concepts/principles include listening’, ‘respecting’, ‘non-judgement’, ‘empathy’, and ‘building rapport’ listening and use of OARS (open-ended questions, affirming, reflective and summaries). The researcher encountered research participants who wanted to know what MI was and the explanation provided by the researcher was that MI is a conversation or koorero interview. The response from participants was favourable once they were explained the meaning of MI and what it entailed.

The literature reports that KMR does challenge western philosophies and must have positive benefits/outcomes for Maaori. A kanohi-ki-te-kanohi or wananga to bring all 25 whaanau in this study would have been part of the whakamutunga (closure) process, however due to time restrictions and cost were limited.

A limitation of qualitative research as Barbour and Barbour (2003) suggest, is that quantitative research seeks to explicate the exact nature and strength of associations or relationships, qualitative research tends to develop an ever-widening explanation, drawing on diverse literatures and sometimes even crossing disciplinary boundaries.
A further limitation of the current study is that the chosen sample was randomised for the 6 month intervention group and did not take into account the full journey of the women and whaanau when their peepi turned 12 and 18 months. The participant sample does not account for the general Maaori population; therefore caution must be taken in generalising the findings across all Maaori people in Aotearoa New Zealand.

6.3 Waahine Maaori maatauranga me o oranga niho mo too raatou peepi (Waahine Maaori knowledge and practice of oral health for their peepi)

This study provides waahine Maaori and whaanau with a voice about their experiences of an RCT study about improving oral health needs for peepi/babies. Three themes emerged about waahine Maaori and whaanau experiences, attitudes toward and practice of oral health with tamariki/peepi/mokopuna.

6.3.1 Taonga tuku iho (traditional knowledge transfer, cultural heritage and cultural identity)

Taonga tuku iho is about traditional knowledge transfer, cultural heritage and cultural identity. This theme enhances the notion that all Indigenous people share a common approach that traditional customs are handed down from generation to the next generation.

In this study, the importance of knowledge transfer were discussed as relevant and critical part of these participants lives, where kaumatua/kuia were nurturing tamariki/mokopuna as they had been taught from their tuupuna.
Taonga tuku iho (Cultural heritage)

In shaping a vision for the future we must look to the past to provide a way forward (cited in Durie, 1998). Traditional practices are values, principles and practices of Maori traditional past. Participants shared that they embraced and encouraged whaanaungatanga, whaangai, tuakana/teina, and nurturing tamariki in traditional customs within their whaanau. For example, participants spoke about enjoying seeing their tamariki perform kapa haka, speaking te reo Maaori me onaa tikanga, and doing karakia within in their homes, and teaching whakapapa to their tamariki.

Participants’ positive experiences of oral health for their peepi occur when whaanau approaches are connected to traditional practices and values. Often these participants spoke about their connection to whenua or uukaipoo (place of nurture), child-birthing experiences and naming of their peepi. Whanaungatanga refers to all whanau helping and supporting to raise peepi. Mothers were seen to encourage other whaanau members to help with the daily responsibilities of caring for her peepi, this included whaanau helping with oral health needs with the home.

Whaanau structures were complex. For Maaori families, the traditional practice of whaangai emerged as an accepted practice for Maaori participants. In Haenga-Collins (2011) thesis, she stated:

**Whaangai adoptions were undertaken for a number of reasons. Motives of whaangai adoptions included ensuring the child’s survival and whakapapa line (in the case where the parents’ home was affected by illness or ritual curse), providing care when parents have died, enhancing of family and kinship ties (a common practice was for grandparents to whaangai grandchildren), assisting childless couples within the family (Mead 1997, Metge, 1995, Perkins, 2009 cited in Collins, 2011, p.19.)**

The notion of whaangai as a traditional practice has implications for parenting and raising of mokopuna with grandparents having rights and responsibilities of the child.
The mothers who were receptive to other whaanau taking care of their child expressed how this was common practice amongst Maaori families. This elevates the idea about whaanau coming to care for other whaanau members by way of whaangai.

As McRae & Nikora (2006) and Mikaere (2017) explain, the process of wha[a]ngai is not the defined definition of Paakehaha adoption, but has intricable and complex meaning around whaanau, hapuu and iwi. Mikaere (2017) noted:

It was relatively common for [Maaori] children to be given to someone other than their parents to be raised…reasons for giving the child to someone other than the natural parents to raise included the strengthening of [whaanau] structures through the securement of enduring bonds, benefiting couples without children, and providing relief for those under stress… [Whaangai] children were often especially fortunate. (p. 104)

This has implications for health professionals locating tamariki/peepi/mokopuna for information sharing of oral health resources and other strategies/approaches when working with whaanau Maaori and communities.

Similarly, the tuakana-teina relationships are formed early within whaanau structures. For example, the participants revealed oral health strategies where older siblings helped their younger siblings with toothbrushing. Glasgow and Rameka (2017) referred to tuakana (older child) caring for the teina (younger infant) as seen as a common practice. Similarly, in this current study, the notion of tuakana was credited with their ability to teach teina (younger children) early in age.

In sharing experiences of what taonga tuku iho, whaanau wellbeing and hauora, linked to ECC, meant for them, participants expressed their hopes and aspirations for tamariki to achieve good oranga niho. They emphasised
the importance of knowledge transfer and tuupuna understandings, through whaanau to whaanau, from traditional approaches to contemporary times.

Ngaa tikanga o ngaa oranga niho (Oral health traditional practices)

Participants’ shared puuraakau in relating the experiences of their tuupuna’s traditional practices when easing tooth pain such as rubbing and cutting of gums. Although some mothers preferred contemporary methods of tooth relief, they still expressed the importance of traditional Maaori knowledge as transferred from generation to generation. This finding is similar to Cidro et al.’s (2014) study which revealed that traditional knowledge about oral health feeding and oral health practices is valued among Indigenous women. The study reports how to prevent oral health decay in young children by changing their cooking practices (Cidro et al., 2014).

Rangatiratanga (Leadership)

Tuupuna (grandparents) have a leadership role in the development of the hapuu and iwi and the richness of the Maaori culture. Maaori elders have share their experiences through oral traditions (Tinirau et al., 2011). The key roles of grandparents included concepts of whaanau, whakapapa, language, marae ceremonies, respect for the environment and responsibility. The findings of the current study found that tuupuna advocated for, or used the internet to gain information to help raise their mokopuna and to self-educate themselves about infant feeding practices. Tuupuna play a pivotal role in the lives of tamariki/mokopuna, therefore they will require more attention from health services and health professionals for health education about oral health. A kaupapa Maaori study by Tapera, Harwood, & Anderson, (2017) pointed out that:

Grandparents’ complementary feeding practices in caring for infant mokopuna were influenced by structural elements such as government policies related to welfare and pensions, employment, income and cultural knowledge.
In traditional Maaori whaanau times, the earliest European settlers observed whaanau being raised by the father along with the mother. The whole whaanau were committed to caring from grandparents, uncles and aunts and carers, older cousins and siblings. (Jenkins, K., & Harte, 2011, Metge 1995)

Furthermore, Jenkins, K., & Harte, 2011 stated:

The children participated in kaumatua (elders) councils. Both men and women were of chiefly status. Children were trained to do the varied roles of adulthood – warriors, judges, food producers, artists, builders and caregivers…All the observers commented that the children and youth were years ahead of European children and youth in all aspects of life. (xii).

In contrast, a study about grandparent oral health awareness and the education of grandchildren about oral health reported that there was a need for dental education for grandparents (Oberoi, Kathariya, Panda, Garg, & Raikar, 2016).

In comparison to this current study, grandparents were seen as holders of maatauranga Maaori and shared knowledge of taking their mokopuna to hui, teaching them about tikanga Maaori at marae, introducing them to relatives. Grandparents were skilled with their own knowledge and resourceful in contemporary times were often aware of the use of internet. Internet involved searching for current strategies around infant feeding practices and general health and wellbeing of the child, in particular about oranga niho practices and the importance of dental visits, home dental hygiene and seeking fluoride information.
6.3.2 Puuraakau o Oranga kai (Impacts of health food)

This theme “puurakau oranga kai” occurs when Maaori families have access to oranga kai or healthy food. In effect this helps to achieve quality dental care when there is access to readily healthy nutritious foods. Sugary drinks and high sugary content food is a contributor to early childhood caries for tamariki.

Taiao (Environment)

The Ministry of health advocates for tooth friendly foods and drinks to be a part of the oral health improvement direction for Aotearoa/ New Zealand people (MoH, 2018e). Indigenous Maaori women and their whaanau are affected by poor health and inequities. The availability of sugary foods and drinks, and the mass production of such items into local communities by organisations, businesses and government. The detrimental effect that such practices have to communities, particularly tamariki Maaori, is a public health issue.

The participants spoke about how easily and readily available food has become in vending machines, dairies and local supermarkets. The findings from this study revealed that the research participants’ encounter multiple environmental barriers in the everyday activities of whaanau and nurturing of tamariki/peepi/mokopuna, including oral health hygiene at home, access to health services and eating well. Such barriers include lack of quality access to Oranga kai, such as food outlets, particularly in remote and rural communities.
Despite these environmental impacts, participants used a range of strengths and strategies such as shopping wisely or budget conscious, seeking help from other people such as parents who have raised other tamariki and have knowledge of kai that are tooth-friendly and nutritious for babies, using the internet to research about oral health for babies. These strengths and strategies were seen as helping participants’ navigate when and how to access healthy kai. This knowledge requires further research and may prove invaluable, particularly in remote and rural communities.

**Whakahaumaru Kai (Food security)**

Food security is a strong determinant of nutrition wellness (Adams, 2017). The findings of this research highlighted food sovereignty/food security and food insecurity; mana waahine and mana tane qualities and leadership; and how waahine Maaori and whaanau were nurturers of young babies and played a key role in the practicing of oranga niho kai (healthy food choices).

A 3 year kaupapa Maaori research by (Stein, Mirosa, & Carter, 2018) in Aotearoa New Zealand. The authors discuss how Maaori women are involved in their own food system and values around food security issues. Maaori women are seen as leaders and come up with local solutions to global food issues through self-knowledge and Maaori cultural values.

In this research food security and insecurity were seen as mothers spoke about being vigilant about tamariki dietary needs and introduced natural kai such as fruits and vegetables, breastfeeding, and water. In the research women and whaanau were skilful and resourceful about budgeting for whaanau meals. This leads to Maaori women desired expressions for traditional knowledge of Maaori customary food to transition for new and contemporary knowledge of food gathering.
Maatauranga o Tikanga Maaori me te maatauranga o muri nei o ngaa kohikohi kai (Traditional knowledge of Maaori customary food gathering and contemporary knowledge of food gathering)

Traditional food gathering was seen in the form of Maaori who were hunters, gatherers and fishing people for their communities, hapuu and iwi. In this current study, the findings suggested that Maaori women and whaanau expressed their thoughts about traditional knowledge shared about Maaori customary food gathering, such as sea food, eeling, however an emerged pattern where traditional customary food gathering was now seen as contemporary food gathering. For example, participants spoke about hunting for bargains when looking for food shopping and looking for sales in supermarkets. In modern times, there has been a shift to gathering food and becoming specialists in contemporary shopping or supermarkets.

The present findings also support Cidro et al.’s (2014) study which concluded that local health knowledge keepers should be a part of the discussion around health programs and public health promotion and opportunities to share the traditions of infant feeding is an essential component in restoring skills and pride and is a mechanism for building family and community relationships as well as intergenerational support’.

Whare hokomaha kai o muri nei (Contemporary supermarkets)

Two lower cost supermarket chain stores in Aotearoa/ New Zealand (Pak n Save and Countdown) were mentioned where Maaori access as favourite places to shop for bargains. They strategised when and how they would purchase kai and shopped with the purpose of getting a bargain. The intention of bargain hunting was for the purposes of seeking healthy nutritional kai for their babies. They were also mindful of reading food labels for nutritional information and health value.
Rangatiratanga (Leadership)

Prevention of ECC requires good leadership within the whaanau and role-modelling. Durie’s Te Whare Tapa Wha and Te Pae Mahutonga model embraces the fundamental principle of Ngaa Manukura (leadership). Leadership requires whaanau role modelling which are fundamental for improving the oranga niho outcomes of the next generation of tamariki/peepi/mokopuna. Whanau ora is about the whole community, whaanau, hapuu and iwi receiving optimal health services, quality dental care and information. Indigenous models around health have meant that Indigenous people are given the resources and information for achieving good hauora.

This need for greater leadership reflects Durie’s Indigenous Maori model Te Whare Tapa Wha and Te Pae Mahutonga for Leadership, and navigating solutions for positive health and wellbeing. With this thought, positive oral health can improve for whaanau, and if Durie states that the environmental impacts on whaanau structures today then a greater need is to eliminate structural and systematic barriers impinging on whaanau ora achievement.

Maaori leadership is about providing leadership about access to the environment we live in, having the knowledge and maataurangaa to pass values to the next generation. For example, how our tuupuna lived and sustained whaanau ora and achieved food sustainability from living on their whenua and natural environments. Through the research, participants emerged as leaders within their whaanau. Participants identified leadership skills and qualities that they and their whaanau members possessed which entailed decision making, supportive, respect, encouraging, ability to deal with stress. In Te Ao Maaori, these skills and attributes are transferable and acknowledged as Manaakitanga, kotahitanga, aroha, rangatiratanga, tauutuutu (reciprocity) and uara (values and principles).
The research findings add to the literature about how transmission of cultural heritage occurs in the context of the grandparent-grandchild relationship (Ofahengaue Vakalahi, Taiapa, & Ware, 2013). In this study tuupuna/mokopuna, tuakana/teina relationship can encourage whaanau ora within the whaanau structures. There were examples of genuine aroha for caring for young tamariki/peepi/mokopuna, confirming the need to adopt whaanau ora approaches that consider encouraging Maaori values and the practice of aroha for improving oral health.

**Aroha me te huka kai (Aroha and sugary kai)**

Most of the participants were vigilant about whaanau members sharing aroha with their tamariki/peepi/mokopuna in the form of sugary kai treats. However, some had difficulty controlling sugary food intake when given by other whaanau members. The use of MI technique was helpful for engaging with mothers to find solutions and strategies of how they would combat sugary food intake, especially with extended whaanau (grandparents, cousins) who saw sugary kai (such as lollies and biscuits) as a way of aroha.

**6.3.3 Tamariki/ Mokopuna ora (Child Healthcare services)**

Healthcare or tamariki ora services were often positive experiences or had negative impacts on the lives of these women and whaanau. Maaori mothers reported that they felt there was no care in follow up after leaving the hospital. For example, one mother not being seen by a health worker, no follow up and had to find her own way as a solo young teenage mother raising her peepi. This lack of access or follow up has been evident from the literature.
Services were perceived as either gatekeepers or enablers. Women with multiple tamariki suggested that they were familiar with the health system and had knowledge to navigate where and how to access dental care for their children. They found Maaori health providers to be more culturally receptive to their whaanau needs. Maaori community health workers (MCHW’s) were either whaanau members who worked in these service providers and often were teaching whaanau about healthy lifestyles, oral health and eating well within their own whaanau networks, sometimes outside of their paid work hours.

Boulton, Gifford, and Potaka-Osborne (2009) in their work about MCHW highlighted the complex roles that they perform within their communities and the challenges they encounter in their everyday responsibilities. In contrast, for new young mothers, the health system was not favourable in that they did not know where and how to access services, who should be following up on tamariki care, and generally experienced a lack of support. These participants encountered barriers from health professionals, access to dental care, fear and cost as the predominant factors to impacting their ability to ensure good oral health for their peepi.

Young mothers relied on other whaanau members to help them and, if in doubt, did their own research on the internet to determine what they should do. In the Canadian study, Scroth et al. (2013) indicated that caregivers reported that where healthcare services were not available and were not culturally appropriate were significantly more likely to have children with severe ECC.
6.4 Whakaraapopoto (Summary)

A strength of this research lies in having captured the voices of Maaori women and whaanau themselves who are centred within a Kaupapa Maaori methodology about ECC. Indigenous communities continue to face inequities in health and oral health. Having Indigenous voice in a qualitative Kaupapa Maaori research was essential to this study. Without the voices of the study participants’ voices such as mothers and whaanau, the research would be lacking support about what are the needs for them and their babies that are being nurtured in Waikato-Tainui rohe (region). Inequities occur when Indigenous Maaori people face barriers and challenges that perpetuate in their everyday lives. Barriers include environmental, political, personal, financial restrictions, as well as a myriad of ways in which whaanau are treated.

The research empowered whaanau to seek solutions within their own whaanau, local communities, hapuu and iwi, however more could be done to address the issue of oral health. Improving oral health in Indigenous Maaori communities requires interventions that are whaanau driven to create positive behavioural change. Invested interest in removing barriers and iniquities that exist for them is needed. Further research is needed when exploring Maaori traditional oral health practices. Better understanding tuupuna or traditional knowledge regarding oral health thus has significant implications for Maaori practice. The next chapter is the conclusion.
Chapter Seven: Te Koorero Tuawhitu- Conclusion

Mehemea ka moemoeaa ahau, ko ahau anake.
Mehemea ka moemoeaa taatou, ka taea e taatou.
If I dream, I dream alone. If we dream together, we shall achieve.
(Kingitanga, 2018)

Whakamaaramatanga (Translation): The closing whakatauki from Te Puea Herangi also known as Princess Te Puea, for her dedication to her people and her legacy for the poor and marginalised and her hard work to serve her Waikato-Tainui people. She helped to build Tuurangawaewae marae during challenging times, when numbers of women and tamariki were dying from influenza and public health disease. Her foresight was that Tuurangawaewae marae would be the first hospital to house and care for Maaori women and children and vulnerable people in the Waikato. The survivors and descendants of the people she helped live on today.

7.0 Timatanga (Introduction)

ECC is a prevalent disease amongst Indigenous children including Maaori tamariki/peepi/mokopuna. The goal is to eliminate ECC within Indigenous populations. There are multifaceted factors that affect Indigenous communities seeking to reduce ECC. The findings of this study have significant implications for the delivery of services for Indigenous and Maaori families and young children/babies. The recommendations provided are focussed on achieving improved outcomes for Indigenous children and address practice, policy and research. In Aotearoa New Zealand the government through the Ministry of Health, local DHB, and policy makers, as well as health professionals, service providers and leaders play an active role in how the reduction of ECC occurs for whaanau Maaori, waahine and tamariki/peepi/mokopuna.
7.1 Ngaa ritenga o ngaa rangahau me tikanga Maaori (Implications for research and practice)

The research provides a kete (basket) of Indigenous Maaori and ECC maatuaranga (knowledge) shared by Indigenous Maaori women and whaanau participants’ experiences about oral health for their tamariki/peepi/mokopuna. Through the Indigenous Maaori participants’ voices, this research adds to the literature on Indigenous oral health and ECC, MI, kaupapa Maaori methodologies.

The study also connects with the notion of food sovereignty and food security (insecurity) as part of Oranga niho and ways in which whaanau access food sources, both traditionally and contemporary. The participants reported that they encountered barriers such as environmental, personal, racism, financial and interpersonal factors, are linked to the detrimental failure of Maaori women and whaanau not accessing health and dental services and lacking support and information for the betterment of tamariki and mokopuna.

Further research on Indigenous Maaori oral health, particularly perceptions of Maaori people and children, is needed to plan effective policies and interventions.

Services that support and treat dental care for tamariki and whaanau play a major role in the reduction of ECC. This study has implications for health services, including dental services and treatment, and health professionals engaging with waahine Maaori and whaanau. Maaori mothers have greater expectations from health services, which may escalate fear and barriers of stress and diminish engagement.
The findings revealed that Maaori women and whaanau require oral health information and services which are culturally appropriate. If such services are not possible, and the only solution is to access mainstream services, such as hospitals and universal service providers and childcare centres, the participants expressed that they would still attend appointments so long as the staff were friendly, respectful and welcoming, and receptive of them. It is also important that services providers have some understanding of tikanga Maaori and kawa, when working with Maaori communities.

The fundamental principles of TNT is Kiingitanga, Waikatotanga, Hinengaro, Wairuatanga, Whakapapa, Mana, Whaanaungatanga, Mauri and Taha Tinana can be applied within the oral health setting. These TNT principles can be adapted as tikanga/kawa for Waikato-Tainui iwi. Finally, prevention programming could explore whaanau ora (maximising all Maaori family/families) approaches and strategies that focus on reducing ECC.

7.2 Ngaa Tuutohunga (Recommendations)

From the research findings, the recommendations are presented under the headings of practice, policy and research.

7.2.1 Ngaa ritenga (Practice)

Indigenous people and Maaori women and their whaanau and children require equitable oral health care and treatment. Health professionals and service providers should work with Indigenous mothers to find solutions to meet the needs of Indigenous and whaanau Maaori. By adopting hauora Maaori models such as Te Whare Tapa Wha, Te Pae Mahutonga and new innovative approaches are required to preventative ECC or dental caries interventions that work.
Health professionals may consider good planning, initiation, transition of and evaluation of for Maaori by Maaori approaches to reducing and improving ECC.

Some recommendations may include: Post-natal visits to Maaori women who need follow up, especially first time young Maaori mothers; educate health professionals and dental workers working with Maaori communities on how they should deliver services and how to address barriers, particularly those barriers which are encountered by Maaori women and children. This will include interpersonal skills, MI, or Maaori wananga on marae, and iwi communities. For example, teaching and promoting tamariki oranga niho through pamphlets, videos and other media, resources such as toothbrushes, fluoride promotion, and nutritional oranga kai information.

Creating opportunities where oral hygiene can be done over a phone app (application) which is designed in an Indigenous approach such as toothbrushing, oral hygiene and key oral health messages for whaanau. Another recommendation is to provide Indigenous Maaori cooking workshops or wananga or ways of educating young Indigenous mothers and extended whaanau for infant meal preparation.

7.2.2 Kaupapa here (Policy)

Government, local DHBs, service providers have a responsibility to address the increasing ECC within Indigenous Maaori communities. The current policies must be implemented in practice to enable action approaches which are inclusive of Maaori people. The Government and local DHBs should continue to provide funding for provision of te reo Maaori and bilingual resources to wharekura and kohanga reo. Local wharekura and kohanga reo centres are often the places where whaanau Maaori go to visit and are more receptive to oral health messages in te reo
Maaori or bi-lingual language. The current Ministry of Health policies (MoH, 2018b, 2018f) do focus on whaanau ora successes however the reasons for ECC disparities are multi-factorial including diet, oral health behaviours, exposure to fluoridation, social determinants of health, health service delivery and access to oral health services (Broughton, et al., 2013). Oral health policies should be tailored towards a multi-level approaches that work for delivering dental and health services of Indigenous mothers and children for the prevention of ECC (Batliner et al., 2014; Broughton, et al., 2013; WHO, 2018).

MI is one approach which has been proven to be successful for Indigenous children. Specifically Maaori approaches include whaanau ora, holistic Maaori models such as Te Whare Tapa Wha, Te Pae Mahutonga and as such tribal models like Te Niho Taniwha as indicated in this study. The holistic approaches will help to reach and engage with whaanau Maaori to seek solutions to reduce ECC (Broughton et al., 2016).

Health professionals, policy makers and service providers must work with whaanau Maaori in an engaging and non-intrusive way than in the past as Maaori communities are reluctant when they are being acted upon rather than asked as experts in their own communities. The implementation of Government and local government policies should be planned, developed, implemented and evaluated for whaanau Maaori to achieve increased whaanau ora, and improved oral health outcomes for whaanau Maaori and their tamariki/peepi/mokopuna.
7.2.3 Rangahau (Research)

From the research findings there is scope for further Indigenous research about ECC. Research about Mana Taane about their experiences, knowledge, attitudes of and practices about oral health for tamariki/peepi/mokopuna. There is potential research for tuupuna (grandparents) and maatua (parents) or whaanau focus groups about their experiences. Further exploration using MI focus groups and interviews or kanohi-ki-te-kanohi interviews about oral health practices will be beneficial for whaanau Maaori, hapuu and iwi. Traditional Maaori kai and food security/ food insecurity and/or food sovereignty is relevant given that Maaori traditional practices is to offer kai for manuhiri.

Other research may include traditional knowledge or maatauranga about nurturing infant feeding and breastfeeding, in contrast to other Indigenous peoples. Whanau ora research about whaanau experiences to improve oral health for their tamariki/peepi/mokopuna. There is scope for matauranga and traditional knowledge transfer research with tuupuna/kaumaatua/kuia interviews about oral health.

Qualitative kaupapa Maaori, mana wahine, puuraakau research about ECC and tamariki/peepi/mokopuna. Maaori community workers who promote oral health in homes, marae and Maaori communities. During this research, the researcher developed a connected model to the Te Niho Taniwha, called “Wai” and due to the time and restrictions of this Master’s thesis would have been outside the scope of this rangahau.
7.3 Whakaaro Whakamutunga (Final Reflective thoughts)

Indigenous Māori who participated in this study have expressed their desires, hopes and aspirations for a better future for their tamariki/peepi/mokopuna. ECC greatly impact on the lives of tamariki/peepi mokopuna. Dental caries is a preventable disease and more work is needed at the early ages. Māori need to enjoy the same level of health as non- Māori. I have worked in the field of Māori health and within Waikato DHB institutions and have seen how challenging and difficult it can be for our Māori people to enter and navigate these services. I have no doubt that there are Māori within the health organisation, kaitiaki, project managers, policy makers and iwi Māori council and Māori leadership groups working to help our Māori people; however more can be done external of the DHB, with community programmes and whaanau ora approaches from Māori health services and dental hauora who need to be well resourced to carry on the good work that they do – servicing the wider Māori community.

Having an Indigenous Māori voice in all areas of health (governance, strategic and operational) is needed with strong Māori leadership, rangatahi (young Māori leaders) who can shift and strongly advocate for better quality healthcare and food sovereignty and security for those who are marginalised and vulnerable.

Barriers encountered by waahine Māori, whaanau Māori and tamariki/peepi/mokopuna need to be removed before we see a difference within our communities, hapuu and iwi. The negative stereotypes that portray Māori women and whaanau send unhelpful messages. This research has shifted the ideas of negative approaches, to more strengths-based and positive thinking moving forward.
As I reflect on the waahine Maaori and whaanau who became part of the research, both the larger study and current one, and the hard work of those researchers before me (namely my supervisors and the international ICIHRP project team), I add my small kete of knowledge as a contribution to the academic world. I challenge all health professionals, academic writers, researchers, policymakers and leaders to work for the betterment of Indigenous Maori communities, Waikato-Tainui iwi and tamariki/peepi/mokopuna to achieve Mokopuna ora.

_He mihi teenei ngaa tino whakahirahira te kaupapa o te oranga niho me te hauora tinana ki ngaa whaanau, ngaa hapuu, ngaa iwi katoa._

_Mauriora!_
He Karakia Whakamutunga (closing karakia)

Nau mai e ngaa hua o te wao
o te ngakina
o te wai tai
o te wai Maaori
Naa Tane
Naa Rongo
Naa Tangaroa
Naa Maru
Ko Ranginui e tuu iho nei
Ko Papatuaanuku e takoto nei
Tuturu whakamaua
Kia tina! TINA! Hui e! TĀIKI E!

Welcome the gifts of food
from the sacred forests
from the cultivated gardens
from the sea
from the fresh waters
The food of Tane
of Rongo
of Tangaroa
of Maru
I acknowledge Ranginui who is
above me,
Papatuanuku who lies beneath
me
Let this be my commitment to all!
Draw together! Affirm!
<table>
<thead>
<tr>
<th><strong>Papakupu (Glossary of Maaori words and terms)</strong></th>
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<tbody>
<tr>
<td>Aahuatanga oranga</td>
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<tr>
<td>Aotea</td>
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<td>Aotearoa/ New Zealand</td>
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<td>Aapakura</td>
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<td>Haapori</td>
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<td>Hapuu</td>
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<td>Hauora Maaori</td>
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<td>Hauora tinana</td>
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<td>He tauira mihi</td>
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<td>Hinengaro</td>
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<td>Hoa rangatira</td>
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<td>Humarie</td>
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<td>Iwi</td>
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<td>Iwi whenua</td>
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<td>Kai</td>
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<td>Kai hokomaha</td>
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<td>Kai moana</td>
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<td>Kainga te kai</td>
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<td>Kairangahau</td>
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<td>Kaitiaki</td>
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<td>Kanohi-ki-te-kanohi</td>
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<td>Kanohi kitea</td>
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<td>Karapiro</td>
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<td>Kaumaatua</td>
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<td>Kaupapa arahi</td>
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<td>Kaupapa here</td>
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<td>Kaupapa Maaori</td>
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<td>Kawa</td>
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<td>Kawau maro</td>
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<tr>
<td>Kiingi Tawhiao</td>
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<td>Kiingi Pootatau</td>
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<td>Kiingitanga</td>
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<td>Kumara</td>
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<td>Maahaki</td>
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<td>Maahinaarangi</td>
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<td><strong>Maatauranga Maaori</strong></td>
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<td><strong>Maniapoto</strong></td>
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<td><strong>Mana</strong></td>
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<tr>
<td><strong>Mana Atua</strong></td>
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<tr>
<td><strong>Mana Tipuna/Tuupuna</strong></td>
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<tr>
<td><strong>Mana Whakahaere</strong></td>
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</tbody>
</table>
Waikato-Tainui rohe in accordance with tikanga. For Waikato-Tainui, mana whakahaere has long been exercised under the mana of the Kiingitanga.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Mana Whenua</td>
<td>Territorial rights, power from the land, authority over land or territory, jurisdiction over land or territory.</td>
</tr>
<tr>
<td>Mana tangata</td>
<td>Power and status accrued through one's leadership talents, human rights, mana of people.</td>
</tr>
<tr>
<td>Mana waahine</td>
<td>Maaori women philosophy, self-determination theory</td>
</tr>
<tr>
<td>Manaaki/manaakitanga</td>
<td>Care, caring</td>
</tr>
<tr>
<td>Mangarama</td>
<td>Name of a marae</td>
</tr>
<tr>
<td>Manuhiri</td>
<td>Guests, visitors</td>
</tr>
<tr>
<td>Marae</td>
<td>Carved meeting-house, dining-hall and cooking area, with a marae atea</td>
</tr>
<tr>
<td>Marae atea</td>
<td>Sacred space in front of the meeting-house for poowhiri, to welcome manuhiri</td>
</tr>
<tr>
<td>Marokopa</td>
<td>Name of marae, located on the west coast of North Island</td>
</tr>
<tr>
<td>Maraetai</td>
<td>Name of a place</td>
</tr>
<tr>
<td>Matutaera</td>
<td>Second King Tawhiao also named Tuukaaroto Matutaera Pootatau Te Wherowhero Taawhiao</td>
</tr>
<tr>
<td>Maungatautiri</td>
<td>Name of a place, mountain</td>
</tr>
<tr>
<td>Maunga</td>
<td>Mountain</td>
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<tr>
<td>Term</td>
<td>Definition</td>
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<td>--------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Mauri</td>
<td>Life principle, life force, vital essence, special nature, a material symbol of a life principle, source of emotions - the essential quality and vitality of a being or entity. Also used for a physical object, individual, ecosystem or social group in which this essence is located.</td>
</tr>
<tr>
<td>Mauri noho</td>
<td>State of unwellness or laying in a state of noho (waiting in silence, unwell).</td>
</tr>
<tr>
<td>Mauri oho</td>
<td>Connected to the arising and awakening of wellness</td>
</tr>
<tr>
<td>Mauri ora</td>
<td>Success of wellness that the individual and whaanau or Maaori community are doing well.</td>
</tr>
<tr>
<td>Mataatua</td>
<td>Name of waka; migration canoe which landed at Whakataane and finally ended at Hokianga before being dragged overland to Taakou.</td>
</tr>
<tr>
<td>Mihi</td>
<td>To greet, pay tribute, acknowledgement</td>
</tr>
<tr>
<td>Mihinunui</td>
<td>Exceed greetings or acknowledgement</td>
</tr>
<tr>
<td>Moana</td>
<td>Sea, ocean, large lake</td>
</tr>
<tr>
<td>Nunui</td>
<td>To be big, large, important, major</td>
</tr>
<tr>
<td>Ngaa Ritenga</td>
<td>Practice</td>
</tr>
<tr>
<td>Ngaa whekowheko</td>
<td>Limitations</td>
</tr>
<tr>
<td>Ngaa whirikoka</td>
<td>Strengths</td>
</tr>
</tbody>
</table>
Ngaaruawaahia Name of place, Tuurangawaewae is situated in Ngaaruawaahia, North Island

Ngaati Aapakura Subtribe in Maniapoto, located in the centre of the North Island

Ngaati Hauaroa Subtribe, located in the centre of the North Island

Ngaati Korokii Subtribe, located in the centre of the North Island

Ngaati Poorou Subtribe on the East Coast of the North Island

Ngaati Mahuta Subtribe, located in the centre of the North Island

Ngaati Maniapoto Subtribe located in the centre of the North Island

Ngaati Raukawa Subtribe in Raukawa, located in the centre of the North Island

Ngaati Rora Subtribe in Maniapoto, located in the centre of the North Island

Ngati Ruapuha Subtribe in Maniapoto, located in the centre of the North Island

Ngati Uekaha Subtribe in Maniapoto, located in the centre of the North Island

Ngaati Whawhaakia Subtribe in Waikato, located in the centre of the North Island

Ngapuwaiwaha Name of marae in Taumarunui in the centre of the North Island

Opaarure Name of place near Te Kuiti in the centre of the North Island.
Ora
Being well

Oranga
Wellbeing

Oranga niho
Positive oral health, good oral health, to achieve oral health and wellbeing.

Oranga Tane Maaori
Health Research Council funded project conducted by Te Puna Oranga, Waikato Clinical School and Auckland University, Study of Maaori men with chronic illness and or cancer in Waikato.

Paa
Marae, place of gathering

Paapaa
Father

Paakehaa
White European descent

Paatetere
Chant

Paepae
Orator’s bench

Papakainga
Home land

Patai rangahau
Research questions

Pepeha
Introduction of a person

Peepi
Baby, Babies

Poowhiri
Formal Maaori welcome adhering to tikanga and kawa protocols

Poukai
Ceremonial gathering

Puukukawa
Location of the choosing of the first King Pootatau

Puuraakau
Maaori oral traditional storytelling

Puuaha o Waikato
Mouth of the Waikato awa

Puna
Spring
Rangahau  Maaori research, Maaori methodology
Rangahau Kaupapa  Research aim
Rangahau Hauora raatoo  Western health research
Rangatahi  Younger generation, Youth, Young leaders
Raupatu  Land confiscation
Rereamanu  Name of marae, also known as Haurua
Rohe  Region
Ruapuutahanga  Name of a woman, in relation to Tuurongo and Mahinarangi
Ruri  Poem
Ruruhi  Great grandmother, grandmother, elder woman
Taakuta niho  Dentists
Taaehopuwai  Name of marae, located in the centre of the North Island
Taha Tinana  Mind, body
Tainui  Name of waka; term used for the tribes whose ancestors came on the Tainui canoe and whose territory includes the Waikato, Hauraki and King Country areas.
Takitimu  Name of waka; a migration canoe - the crew of this canoe from Hawaikii are claimed as ancestors by Ngaati Kahungunu, Ngaai Tahu and Ngaati Ranginui
Taku hikoi rangahau  My research journey
Tamariki  Children
Tamariki Maaori  Maaori children
Tangata whenua  Local people, hosts, indigenous people - people born of the whenua
Taniwha  Guardian, protector of the awa (river)
Taonga tuku iho  Traditional knowledge transfer, cultural heritage and cultural identity; Treasure, resource and/or possession

Under the Waikato-Tainui Accord with the Ministry for Culture and Heritage, ‘taonga tuku iho’ is defined as those things that are highly prized and derived from iwi, hapu and whaanau. They are whakapapa connected and are passed on from one generation to the next. This includes:

a) tangible objects such as types of heirlooms, artefacts, carvings, land and fisheries; and

b) intangible substance such as language, spiritual beliefs, ideas and metaphysical gifts.

Tatari  Delayed
Taupiri  Name of sacred mountain in Waikato-Tainui, in the centre of North Island
Tautoko  Support
Taumarunui Name of a place located in the centre of North Island
Te Ao Maaori Maaori worldview
Te hanganga o te whakapae Structure of the thesis
Te kohanga reo Maaori nest, nursery, Maaori education centre.
Te Koorero Tuatahi Chapter 1 - Introduction
Te Koorero Tuarua Chapter 2- The Waikato-Tainui researcher
Te Koorero Tuatoru Chapter 3 – Literature review
Te Koorero Tuawha Chapter 4 - Methodology
Te Koorero Tuarima Chapter 5 – Results
Te Koorero Tuaono Chapter 6 – Discussion
Te Koorero Tuawhitu Chapter 7 – Conclusion
Te Kuiti Name of a place located in North Island, Aotearoa/ New Zealand
Te Niho Taniwha Tribal cultural model or Waikato-Tainui Maaori philosophical framework
Te Porotaka Nama Tahi The First Circle, Waikato-Tainui tribes
Te Puna Oranga Maaori health service at the Waikato District Health Board, located in Hamilton, centre of the North Island.
Te Raarangi aahua List of Figures
Te Raarangi ripanga List of Tables
Te Raarangi pukapuka References
Te reo Maaori Maaori language
<table>
<thead>
<tr>
<th>Māori Term</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Te reo Māori me ona tikanga</td>
<td>Māori language and Māori practices</td>
</tr>
<tr>
<td>Te Tokanganui-a-noho</td>
<td>Name of marae in Te Kuiti, also known as Te Kuiti pāa</td>
</tr>
<tr>
<td>Te Tiriti o Waitangi</td>
<td>Treaty of Waitangi</td>
</tr>
<tr>
<td>Te wahi o te mahi nei</td>
<td>Location of the research for this thesis</td>
</tr>
<tr>
<td>Te whakamutunga</td>
<td>Conclusion</td>
</tr>
<tr>
<td>Teina</td>
<td>Younger infant</td>
</tr>
<tr>
<td>Tikanga</td>
<td>Customary practices</td>
</tr>
<tr>
<td>Tikanga Māori</td>
<td>Māori customary practices</td>
</tr>
<tr>
<td>Tikanga rangahau</td>
<td>Research process</td>
</tr>
<tr>
<td>Tino Rangatiratanga</td>
<td>Empowerment, leadership</td>
</tr>
<tr>
<td>Timata</td>
<td>Immediate</td>
</tr>
<tr>
<td>Timatanga</td>
<td>Introduction</td>
</tr>
<tr>
<td>Titoki</td>
<td>Name of papakainga (homeland)</td>
</tr>
<tr>
<td>Tuakana</td>
<td>Older child</td>
</tr>
<tr>
<td>Tuakana-Teina</td>
<td>Older, younger relationship</td>
</tr>
<tr>
<td>Tuupuna or Tipuna</td>
<td>Ancestor, great grandparents, grandparents</td>
</tr>
<tr>
<td>Tuupuna awa</td>
<td>Ancestor river, also Waikato awa, Waikato river</td>
</tr>
<tr>
<td>Tuurongo</td>
<td>Waikato-Tainui man who married Mahinarangi</td>
</tr>
<tr>
<td>Uekaha Ruapuha</td>
<td>Subtribe, Place near Waitomo caves, located in the centre of the North Island</td>
</tr>
<tr>
<td>Uiui me toitoi manawa</td>
<td>Motivational Interviewing</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Urupaa</td>
<td>Place of burial</td>
</tr>
<tr>
<td>Waahine; Waahine Maaori</td>
<td>Woman, women, female; Maaori women, mother, mothers</td>
</tr>
<tr>
<td>Wai</td>
<td>Water, source of water</td>
</tr>
<tr>
<td>Waiata</td>
<td>Song</td>
</tr>
<tr>
<td>Waikato awa</td>
<td>Waikato River</td>
</tr>
<tr>
<td>Waikato iti</td>
<td>Name of place at the base of Tongariro</td>
</tr>
<tr>
<td>Waikato Raupatu River Trust</td>
<td>Tribal administrator of the Waikato River</td>
</tr>
<tr>
<td>Waikato-Tainui</td>
<td>People who descend from or affiliate to a recognised Waikato-Tainui marae, hapuu, or iwi. A person is recognised as being affiliated to a Waikato-Tainui marae, hapuu, or iwi only if that marae, hapuu, or iwi recognises that affiliation. ‘Waikato-Tainui’ also, where the context allows, includes the various organisations or bodies that Waikato-Tainui establishes to manage the individual and collective affairs of Waikato-Tainui. This includes, but is not limited to committees, trusts, or other organisations for marae, hapuu, management committees, clusters of the same, the relevant iwi authority or its delegated body, and other structures that, from time to time, Waikato-Tainui may establish to consider matters of relevance under this Plan.</td>
</tr>
<tr>
<td>Waikato-Tainui iwi</td>
<td>Waikato-Tainui people affiliated through whakapapa links</td>
</tr>
</tbody>
</table>
Waikatotanga: Waikato tikanga or customary beliefs and practices

Waikato tikanga: Customary beliefs and practices of the Waikato tribe

Wairuatanga: Spirituality

Whaanau, Whaanau Maaori: Family, families, extended family

Whaanau Ora: Maximum health and wellbeing for Maaori families

Whaea: Woman, respected woman, Maaori health researcher

Whakapapa: Genealogy, ancestry

Whakamana: To empower

Whakamaaramatanga: Translation

Whakamutunga: Conclusion

Whakaraapopoto: Summary

Whakawhaanaungatanga: Relationships, family relationships, connections

Whakatika ngaa rangahau: Ethics approval and consent

Whakatauki: Proverbial saying

Whaangai: Maaori foster child, adopted child - this is a customary practice. Often a couple's first child was brought up by grandparents or adopted by one of the brothers or sisters of a parent, but almost always the foster child was a blood relation, usually a close relation.
Wharekura Secondary school education, age's year
9 – year 13

Whitiwhiti Koorero Data analysis
In order to help safeguard and protect the health and wellbeing of our whaanau, hapuu and iwi we need to understand more about the things that impact on the dental health of our mokopuna and tamariki. We need to look at effective ways of maintaining good dental health right through our lives, starting as peepi. The key is to try and prevent dental decay in the first place.

**What is this study about?**

Dental disease in children can cause a lot of pain. Dental disease can be prevented. This study will look at different ways that dental disease among our mokopuna and tamariki can be prevented. It will involve some basic dental treatment provided for the mother, fluoride protection applied to the teeth of the
tamariki, and hui koorero (interviews) that will provide information for the whaanau to maintain oranga niho (dental health).

What is involved?
As a study participant, during the second phase of your pregnancy you will be asked to take part in small hui koorero, kanohi-ki-te-kanohi (face-to-face) with our whaea and kairangahau (Maaori health researcher). The Kaupapa o eenei koorero (the topics) will include such things as oranga niho me te hauora tinana (dental health and general health and wellbeing), self-care behaviours/practices that effect good oral health, the role of diet and oral health, and the importance of regular dental check-ups.

You will be invited to take part in an early childhood caries intervention. You and be randomly assigned to one of two groups: Timata (Immediate) or Tatari (Delayed). Both groups will receive the same number of varnish treatments and hui korero as each other, the only difference is whether this happens earlier (Timata) or later (Tatari).

What happens to my personal information?
You will not be personally identified in any of the study reports. The information you provide will be kept securely and we will treat your personal information with absolute confidentiality.

Who can take part in this study
This study is for Maaori women who are hapuu (pregnant).

Will taking part cost money?
No, participating in the study will not cost anything.

He koha
To compensate you for your time in participating in this project you will be presented with a small token of appreciation.
Ethical Approval

This study has ethical approval from the Northern Y Regional Ethics Committee, Hamilton.

Deciding whether to take part in the study?

Your participation in this study is entirely voluntary. You don't have to take part in the study if you do not want to, and you can change your mind at any time without having to give a reason.

Please feel free to contact us if you have any further questions about this study:

Kay Berryman
Researcher
Waikato-Tainui College for Research and Development
0277035415
Kayb@WaikatoTainui.ac.nz
If you have any queries or concerns regarding taking part in this study, you may wish to contact either:

A Health and Disability Advocate
(06) 753 9392

OR

The Health and Disability Commissioner
Level 10 Tower Centre
45 Queen St
Auckland PO Box 1791
(09) 373 1060

Rangimaria Cooper-Te Koi
Associate Professor John Broughton
Dr Sarah-Jane Tiakiwai
Pouarahi-Kaupapa Rangahau
Department of Preventive and Social Medicine
Waikato-Tainui College for Research and Development
Raukura Hauora O Tainui
Development
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Dunedin School of Medicine
Private Bag 542
Huntly
University of Otago
Ngaruawahia
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PO Box 913
Dunedin
DUNEDIN
Telephone: (07) 828 6626
Fax: (07) 828 6635

Telephone: (03) 479.7268
Appendix B: Interview Consent Form

A Māori Oral Health Research Project

‘An intervention strategy to promote and maintain
the oral health of Māori children’

A Joint Project Conducted By
Raukura Hauora o Tainui Trust, The Waikato-Tainui College for Research and Development and The University of Otago

CONSENT FORM FOR INTERVIEW RECORDING

I understand that motivational interviewing (MI) is part of the study that needs to be carried out the same way by each researcher. It has been explained to me that recording the interview is the only way to make sure the motivational interviewing is being conducted in the best way possible. I understand that I will not be identified in any of the recordings; that field notes may be drafted from the recordings for later analysis; that the recordings will be confidentially secured by the study’s Waikato-Tainui based Lead Investigator (Dr Sarah-Jane Tiakiwai) at the Waikato-Tainui
College for Research and Development; and that the recordings will be destroyed five years after the completion of the study.

MI Directive (pregnancy, 6-, 12- or 18-months):

I consent to having the motivational interview recorded

[ ] Yes       [ ] No

Name:

Signature:

Please return this form to Kay Berryman. Kia ora!

Kay Berryman
Tari Matua 07 824 5430
Waaea Puukoro 027 703 5415
Imeera kayb@WaikatoTainui.ac.nz
Waahi Mahi 451 Old Taupiri Road, Hopuhopu
Poutaapeta Mahi PO Box 89, Ngaaruawaahia
Appendix C (i): Interview Schedule for participants

Whakawhaanaungatanga – Introductions and ask about background, whakapapa, iwi, hapuu. Explain the research study. Start with open ended question/patai.

1. Tell me about you and your peepi (baby)?
2. Describe a typical day?
3. What are any positive things that help improve oral health for you and your peepi?
4. Are there any challenges when encouraging oranga niho for peepi?
5. Is Oranga niho (Oral Health) important for you and your peepi (baby)?

   Ruler (To ask the participant about the importance of oral health and their confidence to change).

   a. How important is your peepi’s oral health (teeth) for you as a mother? (0 to 10)
   b. If you were to make a change where do you think from a scale 0 to 10 (0 least confident and 10 most confident) your confidence level will be?

6. In what ways do you take care of peepi (baby, babies) teeth (if any)?
7. Do you have any further questions about this study?
Appendix C (ii): Interview Schedule for Key Informants

1. Tell me a little bit about yourself (your background)

2. What do you enjoy about your profession?

3. Tell me about your knowledge of Motivational Interviewing (MI)? What do you like about MI?

4. Have you worked with Indigenous peoples? Maaori?

5. How has MI benefited Indigenous communities? Maaori?

6. Are there any challenges or learnings when working in these communities?

7. Is there anything else you would like to say?
Appendix D: Letter of Ethics approval

8 September 2010

A/Prof John Broughton
Dept of Preventive and Social Medicine
Dunedin School of Medicine
University of Otago
PO Box 913
Dunedin

Dear A/Prof Broughton

Ethics ref: NTY/10/08/051 (please quote in all correspondence)
Study title: Reducing disease burden and health inequalities arising from chronic
Investigators: Associate Professor John Broughton, Ms Joyce Haiapi, Professor W
Murray Thomson, Ms Kate Morgaine

This study was given ethical approval by the Northern Y Regional Ethics Committee on 8 September 2010.

Approved Documents
— Information sheet and Consent form version 1 March 2011
— Questionnaire
— Flyer/Advert

This approval is valid until 30 June 2015, provided that Annual Progress Reports are submitted (see below).

Access to ACC
For the purposes of section 32 of the Accident Compensation Act 2001, the Committee is satisfied that this
study is not being conducted principally for the benefit of the manufacturer or distributor of the medicine or
item in respect of which the trial is being carried out. Participants injured as a result of treatment received in
this trial will therefore be eligible to be considered for compensation in respect of those injuries under the
ACC scheme.

Amendments and Protocol Deviations
All significant amendments to this proposal must receive prior approval from the Committee. Significant
amendments include (but are not limited to) changes to:
— the researcher responsible for the conduct of the study at a study site
— the addition of an extra study site
— the design or duration of the study
— the method of recruitment
— information sheets and informed consent procedures.

Significant deviations from the approved protocol must be reported to the Committee as soon as possible.

Administered by the Ministry of Health
Approved by the Health Research Council
http://www.ethic.comites.health.govt.nz
Annual Progress Reports and Final Reports
The first Annual Progress Report for this study is due to the Committee by 8 September 2011. The Annual Report Form that should be used is available at www.ethicocommittees.health.govt.nz. Please note that if you do not provide a progress report by this date, ethical approval may be withdrawn.

A Final Report is also required at the conclusion of the study. The Final Report Form is also available at www.ethicocommittees.health.govt.nz.

Requirements for the Reporting of Serious Adverse Events (SAEs)
For the purposes of the individual reporting of SAEs occurring in this study, the Committee is satisfied that the study’s monitoring arrangements are appropriate.

SAEs occurring in this study must be individually reported to the Committee within 7-15 days only where they:

— are unexpected because they are not outlined in the investigator’s brochure, and

— are not defined study end-points (e.g. death or hospitalisation), and

— occur in patients located in New Zealand, and

— if the study involves blinding, result in a decision to break the study code.

There is no requirement for the individual reporting to ethics committees of SAEs that do not meet all of these criteria. However, if your study is overseen by a data monitoring committee, copies of its letters of recommendation to the Principal Investigator should be forwarded to the Committee as soon as possible.

Please see www.ethicocommittees.health.govt.nz for more information on the reporting of SAEs, and to download the SAE Report Form.

We wish you all the best with your study.

Yours sincerely

[Signature]

Amita Kuruvilla
Administrator
Northern Y Regional Ethics Committee
Email: amita_kuruvilla@moh.govt.nz
5 October 2012

Amrita Kuruvilla
Administrator
Northern Y Regional Ethics Committee
PO Box 1031
HAMILTON

Teenaa koe Amrita Kuruvilla

Ethics ref: NTY/10/06/051

Study title: Reducing disease burden and health inequalities arising from chronic disease among Indigenous children: an early childhood caries intervention

Investigators: Professor John Broughton, Ms Joyce Maipi, Professor W Murray Thomson, Dr Sarah-Jane Tiakiwai, Dr Kate Morgaine.

AMENDMENT TO
ETHICS APPLICATION

The goal of this study is to determine if implementation of a culturally-appropriate Early Childhood Caries (ECC) intervention, utilising a Kaupapa
Māori analytic framework and research methodology, reduces dental disease burden and oral health inequalities among Māori children living in New Zealand.

One of the components of the intervention arm of the study is Motivational Interviewing (MI). Participants in the intervention arm receive MI at four time points; (1) during pregnancy; (2) when the infant is aged 6 months; (3) when the infant is aged 12 months and; (4) when the infant is aged 18 months. Project staff received MI training before the study's commencement. An important component of MI is to ensure it is being conducted the way it is meant to be conducted; this is called ‘fidelity’. It is also important to ensure MI is carried out in the same way by each researcher, and that each researcher delivers MI in the manner in which it is meant to be delivered each time it is delivered. Recording the interviews is the only way to make sure the MI is being conducted in the best way possible. During the analysis (undertaken by an expert in MI using the internationally reputable Motivational Interviewing Treatment Integrity (MITI) code), the focus is only on what the staff member undertaking the MI is saying; anything said by the participant is ignored and not coded. The participant will not be identified in any of the recordings and the recordings will be confidentially secured by the study’s Waikato-Tainui based Investigator (Dr Sarah-Jane Tiakiwai) at the Waikato-Tainui College for Research and Development. Participants would be fully informed of the reasons behind MI recording, with the recordings occurring only if consent has been given. Some recordings may be used to draft field notes and any MI recording data used in publications or reports would be de-identified. The recordings will be destroyed five years after the completion of the study.
I have enclosed a copy of the additional Consent Form for the recording.

For your approval for the amendment to the Ethics Application.

Yours sincerely

John R Broughton

Professor

ED BSc BDS PhD PGDipComDent DipGrad

Department of Preventive and Social Medicine

Dunedin School of Medicine

PO Box 913

DUNEDIN 9054

Telephone: 03 479 7639
Te Raarangi Pukapuka (References)


Murphy, N. (2011). *Te Awa Atua, Te Awa Tapu, Te Awa Wahine: An examination of stories, ceremonies and practices regarding menstruation in the pre-colonial Māori world.* University of Waikato, Hamilton.


Indigenous and non-Indigenous oral health inequalities in Brazil, New Zealand and Australia. Community dentistry and oral epidemiology.


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