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Māori first foods: a Māori centred approach to understanding infant complementary feeding practices within Māori whānau

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ABSTRACT

This study sought to explore infant complementary feeding practices among Māori whānau and the extent to which they may be informed by traditional and culturally specific practices, knowledge, personal beliefs and values. This study also endeavoured to explore how these practices, values and beliefs may have changed across time and between generations. Māori-centred qualitative methods were used within a theoretical framework of Kaupapa Māori and socioecological theories. Semi-structured interviews were conducted and analysed using Braun & Clarke's method of thematic analysis to uncover key themes and a new theory for understanding infant feeding among Māori whānau. The themes and theories identified through this project suggest that infant complementary feeding is believed to be a natural and instinctive process for Māori whānau, one that is undergoing a process of decolonisation across generations. These theories indicate that Te Ao Māori centred living, grounded in mātauranga Māori is integral to infant feeding values and practices within Māori whānau. It is also clear that many Māori parents desire more culturally relevant infant nutrition information and support. Our findings should inform future updates to infant complementary feeding guidelines within Aotearoa New Zealand, as well as developments in infant nutrition information and support.

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Infant; nutrition; Māori; complementary feeding; health

Introduction

An infant's early life environment, experiences, and exposures play a critical role in healthy growth and development, both in general and specifically with food (Dewey, 2001). While early life nutrition influences the development of food preferences and dietary habits later on (Nicklaus, Boggio, Chabanet and Issanchou 2004), the first two years of life are also nutritionally vulnerable as this period is linked to both short term

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health outcomes and long term disease risks (Robinson and Fall 2012; Schwarzenberg and Georgieff 2018). Complementary feeding is the phase where solid foods are introduced, generally between 4 and 6 months of age, alongside continued milk intake (Agostoni et al. 2008). The New Zealand Ministry of Health Food and Nutrition Guidelines for infants and toddlers inform the evidence-based practice of many health professionals including Well Child providers (e.g. Plunket nurses – the mainstream Well Child providers in Aotearoa New Zealand) and dietitians (Ministry of Health 2008). Although the guidelines contain a section detailing considerations for Māori whānau, the guidelines and ensuing practices of health professionals may not consistently reflect Māori cultural values and norms surrounding feeding and infant care, thus contributing to the current inequities in infant nutrition and health outcomes among Māori children (Castro et al. 2018).

Furthermore, Māori children comprise a vulnerable group in society, differentially impacted by adverse health outcomes as a result of unequal power and resource distributions. For example, Māori children are more than twice as likely as Pākehā children to grow up in households facing significant hardships, including constraints on housing, education, employment and food security (Cram 2019). Furthermore, within a Māori worldview, pēpi and tamariki are sacred taonga (treasures) to be cared for in protection of whakapapa (genealogical connections) (Cram 2019). Therefore, there is merit in exploring how complementary feeding among Māori whānau is informed by traditions, specific cultural practices, and Indigenous Māori knowledge and values, in addition to eliciting how these factors may have changed across time and between generations. This exploration is important to ensure that mainstream infant feeding guidelines and nutrition support are culturally relevant for Māori whānau. Greater consideration of Māori values and preferences in nutrition guidelines for infants has the potential to impact nutrition related health outcomes across the lifecycle, and serve as an investment in the future of the Māori pēpi of Aotearoa (Children's Commission 2012; Hawkes et al. 2017).

The aim of the current study is to establish themes and theories that can be used to address infant nutrition inequities by ensuring that Māori voices, values and practices are represented in this area. Such information is required to ensure that developments in nutrition guidelines and resources, and therefore the evidence-based practice of healthcare professionals and community organisations who support whānau with infant feeding, are informed by the practices, values, and beliefs of Māori whānau.

Methods

This project asserts a Māori centred approach using both Māori and non-Māori research methods and analytical strategies in order to produce contemporary Māori knowledge (Cunningham 2000). From a Māori centred approach, the researchers were guided by principles and practices in line with Kaupapa Māori theory throughout the research process. Kaupapa Māori theory encapsulates the philosophies, customs, and concepts associated with a Māori world view and way of life. Kaupapa Māori research is not strictly defined, as it is known as more and less than a research paradigm, a form of resistance, and a methodological approach (Bishop 1999; Barnes 2000).

The kaupapa Māori ethical principles which guided the researchers throughout the research journey included tino rangatiratanga (sovereignty, autonomy, self-determination), aroha ki te tangata (respect for participants), kia māhaki (be humble/ do not flaunt your knowledge) and tikanga Māori (Māori protocols/ customs) (Cunningham 2000; Smith 2015)

Non-Māori research methods were also used as data were collected through semi-structured interviews which were inductively analysed using Braun and Clarke's reflexive thematic analysis (Braun and Clarke 2019; Terry et al. 2017). This analysis was informed by Kaupapa Māori theory, in addition to socioecological theory, and Te Pae Mahutonga – a Māori model of health promotion and wellbeing (Braun and Clarke 2006, 2019; Durie 1999; McLaren and Hawe 2005; Smith 1999, 2015; Terry et al. 2017). Latent themes were derived using six levels of analysis: familiarisation with data, generating initial codes using NVIVO, searching for themes, reviewing themes using thematic maps, defining and naming themes, and writing the results (Braun and Clarke 2006, 2019).

Participants were purposively recruited through word of mouth and snow-ball recruitment within Māori health and community networks. Recruitment criteria included self-identification as Māori and experience in caring for an infant during the complementary feeding phase. All of the participants were Auckland residents however they identified with a range of iwi (Māori tribes) across Aotearoa. The participants included nine wāhine (females) who were either currently, or had previously been, a primary caregiver for an infant during the complementary feeding phase. Six of the nine participants were between the ages of 25 and 35 while the remaining participants were between the ages 45 and 65. All participants shared experiences from their roles as mothers, while two participants also shared experiences as grandmothers. Four participants were first time mothers with one child, one participant had two young children, one participant had four young children, one participant had three adult children, and two participants had two adult children in addition to multiple grandchildren. This enabled a range of experience to be drawn from, including a range with regards to Māoritanga (Māori identity) as there were some participants with strong traditional Māori influences, as well as participants that shared experiences of cultural and language loss and strong urban influences.

We aimed to recruit up to 10 participants or until data saturation was reached. In this case, data saturation was reached after seven interviews, although a total of nine interviews were conducted in order to increase the diversity of the study population and ensure that no new themes emerged based on differences between participant characteristics such as age, number of children, or level of formal education.

Interviews were undertaken kanohi ki te kanohi (*face to face*) via Zoom and were 45–60 min in duration. All interviews were conducted during the Covid-19 alert levels 3 & 4 during April–May 2020. Interviews were audio-recorded and transcribed verbatim by the student researcher. There were five key lines of enquiry: infant dietary patterns; the formation of feeding knowledge and the influence of culture; sources of feeding information and advice; barriers and enablers to infant feeding; and the connection between Māori values, beliefs, and practices, and infant feeding (Figure 1).

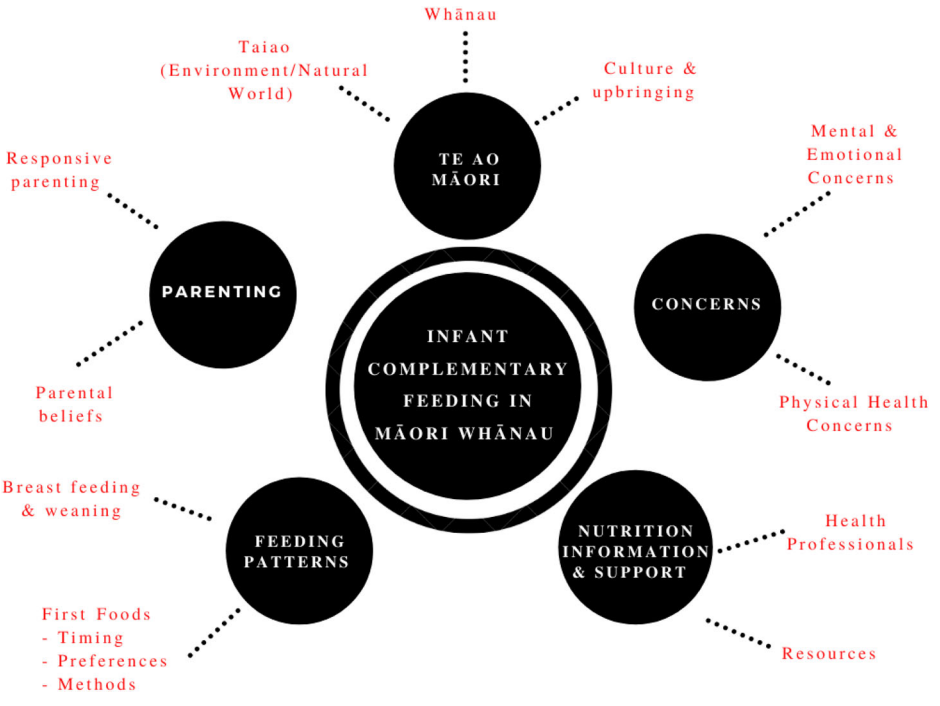

Figure 1. The initial set of themes and sub-themes produced through a thematic analysis of the qualitative data.

Results

An initial set of codes were generated, which were then refined into five main themes with various subthemes (Figure 1, *first and second stages of the Braun and Clarke process*). Upon further review, the interconnections between each of the themes and subthemes were condensed in line with Braun and Clarke's third and fourth stages of thematic analysis. This process condensed the data into three overall themes: the reflection of Te Ao Māori *(a Māori world view)* across infant feeding values, beliefs, and practices; parental concerns with child wellbeing; and differences in infant feeding patterns among Māori parents (Figure 2).

From these three key themes, two overarching theories were developed with regards to infant complementary feeding among Māori whānau. First, that complementary feeding practices are viewed by Māori caregivers as a natural and instinctive process and secondly, that they are actively and progressively being decolonised (Figure 3). These theories will be the focus of this paper, to demonstrate how public health nutrition interventions, support, resources or guidelines could better reflect the values, lived realities, and practices of Māori whānau within this space.

There was also evidence of significant overlap between these two theories of infant complementary feeding within Māori whānau. This overlap rests within the theme of Te Ao Māori (a Māori worldview), which demonstrates that many participants live or strive for a life centred in Te Ao Māori. For example, processes of decolonisation

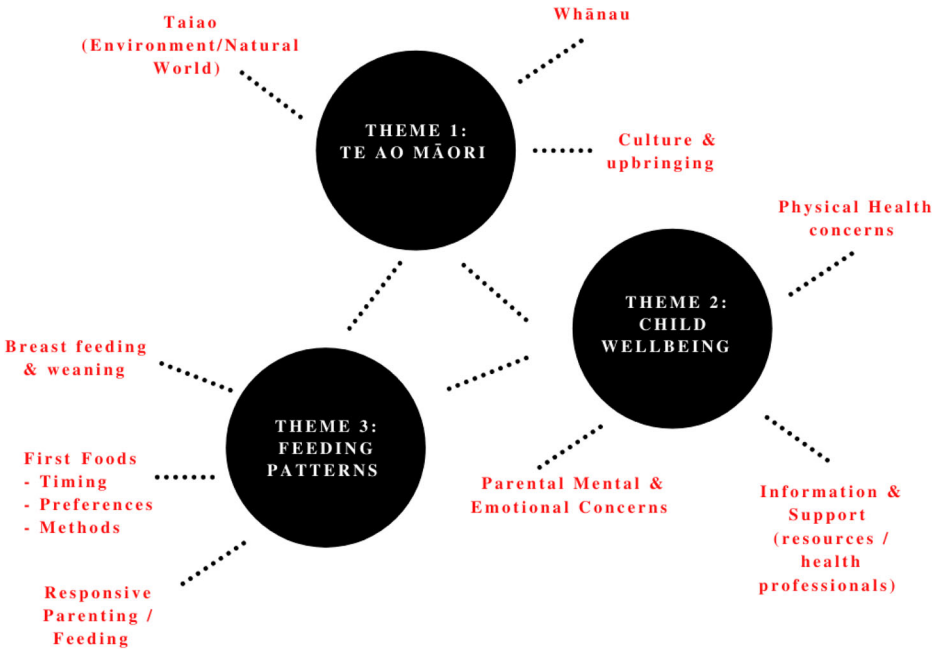

Figure 2. The three main themes and refined sub-themes from the fourth phase of thematic analysis.

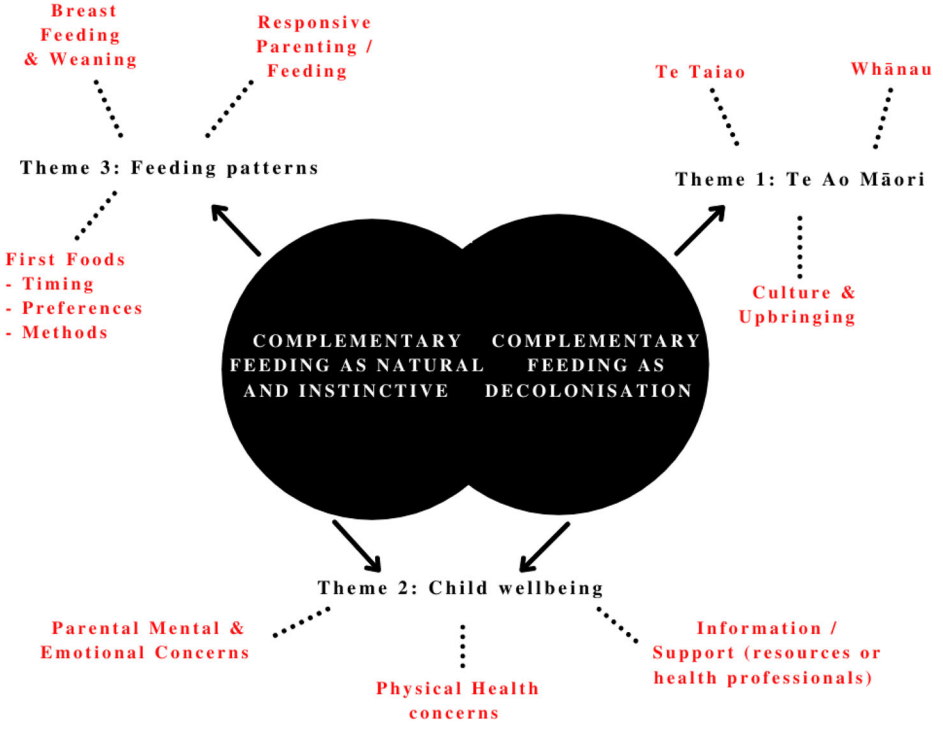

Figure 3. Theories of infant complementary feeding among Māori whānau.

which were active within these whānau, often translated into instinctive methods of feeding natural whole foods.

A Te Ao Māori centred life is expressed through mātauranga Māori. Mātauranga Māori includes all aspects of Māori ways of knowing, being and doing e.g. Māori values, philosophies, beliefs, language, methods and practices (Smith and Reid 2000).

The results indicate that for many of the participants, living a Te Ao Māori centred life grounded in mātauranga Māori was a result of their cultural upbringing, active processes of decolonisation across generations of their whānau, or both. Within this context, decolonisation is the process of deconstructing beliefs, values and practices which favour Pākehā ideals and superiority (Smith 1999). The evidence of decolonisation through a Te Ao Māori centred life grounded in mātauranga Māori was observed in the values many parents had for whānau influence and support with parenting and complementary feeding, as well as the emphasis on self-grown natural whole foods as first foods which nourished the physical and spiritual connections back to the taiao (natural environment) for themselves and their pēpi.

These values and expressions of the processes of decolonisation were highly linked to participants' culture and upbringing and their cultural knowledge, identity and connections to whānau, hapū and iwi. For example, participants with a strong cultural upbringing noted intergenerational practices of complementary feeding (e.g. homegrown kai as first foods). In comparison, participants with lost cultural connections noted the process of decolonisation across generations through the re-established value of taiao and their whānau in infant care and feeding. These data indicate that supporting a Māori centred life grounded in mātauranga Māori as well as processes of decolonisation among Māori will in turn support complementary feeding that promotes optimal infant health through the provision of natural whole foods in a responsive manner. The key themes and subthemes are detailed below.

Key themes

Whānau

The value of whānau support in raising tamariki and as a source of knowledge for how to feed pēpi was a key theme for living a life centred in Te Ao Māori. Some participants were very grateful to have whānau parenting beside them, as expressed by Tui:

> I am quite reliant on my whānau, like my sister and my mum, you know my sister especially you know will give him kai and I'm quite supportive of that.

However other participants like Erena did not have the type of whānau support they needed:

> I didn't have a lot of tautoko in terms of you know support from my ex-husband, whānau or even from my own whānau … I sort of did that by myself.

There was often disappointment expressed among these participants that their lived realities did not match with their desire to live a Māori centred life where wellbeing was perceived to be enhanced by whānau connections. If this was the case these participants often relied on support or advice from outside their immediate families and from

within their community; Erena described her situation as a young mum living away from her family:

> just talking to my neighbour that lived next to me and you know she said 'oh you could try vegetables and greens you know it's really good for them'.

The role whānau have in supporting parental wishes with healthy eating choices for pēpi and tamariki was another main theme, as many parents alluded to the difficulty around asking whānau not to feed their babies certain foods. Mum of 6-month Kauri, Atāhua, explained:

> I'm happy to tell my sister and brother in laws not to give it to him but when its mother and father- in-law I get a little bit shy around bringing it up … if it's my parents on the other hand I'm just like 'no he can't have that!' so yeah I can be a bit two hearts about it at times.

One participant who strictly and openly followed baby led weaning methods discussed the role the immediate whānau have in supporting an infant through the complementary feeding phase. Tiana had a number of older children as well as a baby and explained that the whole whānau will change the way they eat when the baby is starting complementary feeding so that the baby can eat the same foods as the whole whānau:

> Yup so when our new baby is ready to start feeding with us, we change the food we eat and how we cook it.

This was explained as a practice not only for simplicity in not having to prepare extra food but also as a process that allows a baby a relaxed transition into whānau life through food. This practice embodies kaupapa Māori principles of aroha (love), manaakitanga (support), and whanaungatanga (family connection, shared experience, belonging) which demonstrates that if baby led weaning is practiced in this manner, it can align with core Māori values in whānau life.

Culture and upbringing

The relationship between participants' upbringings and the way they wanted to feed their children was a notable theme. Participants discussed aspects of their food practices and environments which they valued and wanted to carry on with their children. The connection between participants' upbringings and what they fed their pēpi was evident through the value of specific cultural foods being fed as first foods, which is something that can be passed down between generations. Makere, a mother and grandmother, explained:

> My Mum would always give my babies something different too like seafoods or you know puha or you know those other tastes and I suppose I've done the same with my Moko's too.

Erena also said:

> my grandson loves raw seafood, all of it any of it … he'll eat it … he loves kina, oysters, mussels he particularly loves fish heads um and I think that's just that re-connection … I really believe that it is that connection back to his DNA and to the kai that we've always eaten.

This demonstrates that for many Māori whānau, kai is often more than just nutrients; kai holds value as a connection to the whenua *(land)* and a connection to the way of life of

tipuna *(ancestors)*. These sacred connections are inherently recognised and frequently passed on through infant complementary feeding practices.

Connection to the natural world/environment (te taiao) & decolonisation

A connection with the taiao is another important theme of complementary feeding within Māori whānau which is also deeply connected to cultural upbringing and living a life centred in Te Ao Māori. For example, Māori māmā Amaia discussed the cultural value feeding her baby natural whole foods during the complementary feeding phase has for her, saying:

> Um but I think culturally, I think probably the idea of natural is probably rooted in culture as well. Um you know trying to come away from things that are probably not within our evolution or our genetics as much as might be in other or different environments

Atāhua also emphasised how her family and cultural upbringing in living off the land in connection with the taiao motivated her to feed her baby home-made and home-grown foods. She described:

> my upbringing in general was a huge influence on wanting to give him home made food, cos the way I was bought up we lived remotely and had no power or water, and the nearest supermarket was about an hour away sort of a thing so we lived off of the land and the sea

Although the value or desire to grow fruits and vegetables was shared by many of the participants, a number of the younger Māori māmā expressed frustration with the difficulties of doing this without having learnt these skills or practices growing up despite placing a high value on it. Anika described these frustrations:

> So, we had this vision, however for us urban lot we haven't really figured out how to make it work yet.

This demonstrates the struggle that many young urban Māori face in trying to reconnect with practices of their tipuna (ancestors) after they have been lost across time and between generations.

In spite of these disconnections or the discontinuance of these practices across generations, participants expressed an innate or inherent connection they feel with the taiao even before they engaged within their cultural journey. Erena explained:

> Yeah, but the connection to taiao is so normal that it's hard to put it into words because it's just how we are. I didn't know that Papatūānuku was called Papatūānuku back then, but I loved you know going out and cutting kai from the garden and just trying to grow something and having that connection.

Amongst the māmā's who had strong whānau and intergenerational connections with their whakapapa, whenua, and taiao, the use of a māra kai for feeding infants was the beginning for continuing that practice and connection. This was articulated by this quote from Makere, talking about the intergenerational connections through a māra kai:

> One of my moko has a little garden. He has been in the garden with his great grandfather and learnt some skills and asked for his own garden at his house. He grows a couple of seasonal veggies and his great grandfather will come and give him advice now and again about his garden. It's a great relationship. In turn he has planted a fruit tree at his great

> grandparents' house and he monitors its growth with his great grandparents. It's whanaungatanga and ako [learning] in action.

This research highlights the innate connection many Māori whānau have to the taiao, independent of the strength of our cultural upbringing or identity. Furthermore, this shows that this connection is an important aspect of Matauranga Māori and Te Ao Māori centred living with regards to infant feeding. These values and practices may also be viewed as an impetus or method of decolonisation and motivator for choosing natural, whole, healthy foods in order to support the optimal growth, development, and cultural identity for pēpi.

Complementary feeding as natural and instinctive

Complementary feeding was observed as a natural and instinctive process with responsive parenting practices being highly valued by Māori parents during this phase. For many parents, responsive feeding involved following their baby's cues and signals for food as opposed to following strict timelines or schedules regarding what and when to feed their pēpi. Atāhua described this process as a whānau centred journey, explaining:

> It's really been our journey as a little family of trial and error, cos we wanted to do it ourselves to see what we could learn along the journey rather than going off what everyone else was doing. So, it was really what's best for our little family and what we feel is best for his eating.

This instinctual and responsive practice had often been promoted and passed down between generations within Māori whānau as described by Anika:

> and so yea not sticking to what I read or what I was told and just doing what Mum said, just to listen to baby … it's just like picking up her cues.

These practices of responsive feeding are grounded in core Māori values such as whanaungatanga (family connections), arohatanga (love, care compassion) and tino rangatiratanga (self-determination). Therefore, information or support that acknowledges complementary feeding as a natural and instinctive process may help support Māori whānau with responsive infant feeding and parenting that aligns with matauranga Māori and the Te Ao Māori centred life many Māori parents are living or striving to live.

Parental concerns with complementary feeding

Parents expressed a range of concerns regarding complementary feeding. These concerns spanned across the two theories of complementary feeding as a natural and instinctive process where decolonisation is occurring.

Parents expressed a range of concerns pertaining to complementary feeding and the physical health of their babies, including food allergies, iron deficiency, picky eating, and safety with regards to choking. There was also significant concern regarding the sugar content of food which translated to many parents giving vegetables as first foods due to worries around the sugar in fruit. Kara described this concern explaining:

> I got this understanding that babies don't know what sweet or savoury is, babies just like what you give them, so to delay the fruit's sweetness and just give them vegetables and they will get enough variety of taste just from plain vegies.

This concern was expressed among all parents regardless of factors like age and strength of Māori identity. Therefore, sugar in first foods may be a modern-day concern due to popular beliefs and misconceptions about sugar in fruit, or these concerns may be related to a turn towards natural, more traditional Māori first foods, or both.

Giving children the best start to life possible through the best nutrition was something many parents were aware of and concerned with, as they were aware of the influence of early diet on eating habits and food preferences based on their own experiences. This was described by Nina who explained:

> I've always been proactive in what I've wanted to feed her like I was very … kind of knew that I wanted to feed her healthy food and give her good habits.

As a result, there was a strong commitment among parents to feed their children healthy foods in order to provide the best nourishment possible, setting them up with healthy eating habits for life. However, this ideal was often in conflict with the financial pressures associated with purchasing healthy food amongst many parents. As a result, parents described a range of strategies they used to provide healthy food for their babies. For example, Erena described using skills such as preserving to make use of food resources when they were available saying:

> Um so me and my Mum also preserved and pickled and canned so I learnt from her, so when apples were cheap, I would preserve them in jars.

This demonstrates the lengths to which many Māori whānau are prepared to go to ensure their children have healthy food and provide them with the best start to life possible.

Furthermore, there were a range of opinions and concerns related to the care received from healthcare professionals. For example, participants within the 45–65-year age group thought more positively of Plunket (the mainstream Well Child provider in Aotearoa New Zealand) and strongly relied on them when they had their children. Erena, who was raising babies in the 1980s explained that:

> the Plunket book was my bible so I used to just read that and my Plunket nurse would come around and she would give me advice as well.

In contrast there was a sense of distrust towards Plunket and other Pākehā providers from parents within the 25–35 age group as the care or information they provided wasn't deemed as culturally relevant, or suitable for the needs of their children and whānau, with Atāhua explaining:

> one of the main factors why we chose to allow baby to teach us rather than listening to the advice from others cos that advice doesn't take into account you know other cultural experiences.

In place of Plunket, participants would often turn to their whānau as a source of information and support, as described by Tui:

> I would probably ask um, well I'd definitely start off with my whānau so like my sister or my Mum.

Furthermore, there was also significant concern expressed by all of the contemporary mothers in the study about the type of nutrition information or resources that are

promoted to new parents. For example, the Watties first foods resource received from Plunket was not deemed beneficial as the food suggestions did not align with foods that Māori and Pacific whānau typically eat. Atāhua explained:

> well for me that whole Wattie's feeding guide is more a generic Pākehā based thing, so having one that tailors to our Māori and Pacific communities would be better.

There was also a level of distrust towards the resource due to its perceived commercial nature and ulterior motives of promoting commercial food products. As described by Anika:

> hmm Wattie's … it's a commercial thing.

Following on from these concerns, Māori parents were asked what information and support they would like to receive. Atāhua suggested:

> So yeah, it would be nice to have something to actually use as a proper guide in what we're doing and to be able to understand the reasons why.

Others suggested that information about preparing natural whole foods in season would be helpful, as expressed by Anika who said:

> Or even understanding seasonal … all about that sort of stuff in understanding kai in its natural form and how it should be used.

This demonstrates that while there is a use for mainstream information and advice among Māori whānau, changes to this information would be beneficial to meet the needs and desires of Māori parents.

Many parents also discussed feeling considerable stress or tension around trying to follow the infant nutrition guidelines to delay first foods until around six months if they were observing their babies' cues and felt that they were ready for solid foods earlier than this. This led to a common belief that the guidelines or advice given to mothers are too rigid and not applicable to Māori babies. One parent who was, however, much more relaxed about this was Tiana, who was a strong adherent to the practice of baby-led weaning; baby-led-weaning is an alternative method of introducing solid foods to traditional spoon-feeding in which babies pick up foods and feed themselves (Cameron et al. 2012; Taylor et al. 2017). Tiana expressed no concerns about following specific advice or a timeline as she introduced foods solely in line with babies' developmental cues. She explained:

> we don't start at a certain age; we just start when our babies are ready. All we need to do is make sure that our baby can sit up and not just for a few minutes you know he needs to be properly sitting up. Um he needs to have that pincer grip um I think if he's crawling around on the floor and can pick a piece of food up, a crumb and put it in his mouth. That tells me he is getting really near to being ready.

Tiana's description reflects the Ministry of Health and Plunket advice regarding following babies' cues however it is not strictly in line with the guidance surrounding an infant's age at first food introduction. Therefore, despite baby-led-weaning not currently being recommended by the Ministry of Health because of the lack of evidence of its safety (Morison et al., 2016), if it is practiced in a safe, responsive manner, it could align with cultural values of responsive feeding and be more readily accepted by Māori whānau.

Discussion

The results from this study demonstrate the role food and infant complementary feeding have in the Te Ao Māori journeys and expressions of māoritanga (Māori way of life) for Māori caregivers and their infants, both of which are grounded in mātauranga Māori (Māori knowledges and perspectives). This was demonstrated through the influence of cultural upbringing, whānau and connections to te taiao on infant complementary feeding. The practices and expressions described by the participants highlight the overlap between the two theories of complementary feeding among Māori in this study; as a natural and instinctive process, and as a method of decolonisation. Both of these theories are central to infant feeding in line with matauranga Māori that supports a Te Ao Māori centred life.

Māori nutrition related health outcomes and inequities are undeniably linked to colonisation through social, political, and economic systems structurally favouring Pākehā (Huygens 2013; Reid et al. 2019). In light of these grievances, the Māori renaissance period was sparked in the 1960s–1970s along with an international Indigenous movement. It was during this period that the formal practice of decolonisation began (Huygens 2013; Smith 1999). The results from the current study indicate that processes of decolonisation are evident within infant feeding practices through the influence of cultural upbringings, and the role of whānau and te taiao in infant feeding. For some participants, these practices have been strong and not disrupted across the generations. For others, they are being actively revitalised. In both cases, forces of tino rangatiratanga (self-determination) and decolonisation are evident. Therefore, there could be merit in framing infant complementary feeding information and support within a historical context of decolonisation and cultural revitalisation. For example, promoting responsive feeding practices, the role of whānau and feeding pēpi kai that connects them to their environment could promote infant feeding practices that support whānau in a Te Ao Māori centred life. Framing complementary feeding information in this manner could make it accessible and relevant to a greater proportion of Māori, independent of personal Māoritanga (Māori way of life) and immersion in Te Ao Māori (a Māori worldview). As a result, Māori whānau may be more receptive to revised healthy food guidelines, information and support for complementary feeding.

The results from this study also indicate that Māori parents view complementary feeding as a natural and instinctive process through the use of responsive feeding practices. Key responsive parenting strategies that were evident included recognising age appropriate cues of readiness for food, and hunger and satiety cues, feeding age appropriate foods, and providing a positive whānau environment for infants which encourage food modelling. In western science, responsive feeding practices stem from responsive parenting which originates from attachment and socialisation theories in child development (Black and Aboud 2011). Research within the area of Māori parenting as well as traditional whakataukī (proverbs) and oriori (lullabies) indicate that responsiveness is the essence of traditional Māori parenting practices. For example, piripoho is the practice of carrying an infant close to the heart or chest until they can sit on their own (Glasgow and Rameka 2016). Additionally, a whakataukī shared in a paper on Māori child rearing and infant sleeping practices states ‘He tangi to te tamariki, he whakama to te pakeke’ (when the child cries, the elder blushes). This whakataukī indicates traditional Māori

perspectives towards infant crying and the value of responsiveness to such cues (Jones et al. 2017). These findings and indications suggest that responsive parenting and complementary feeding practices are a valued instinctive practice for Māori parents and are in fact in line with traditional ways of infant feeding and caring.

Conventional infant feeding information and practices in Aotearoa New Zealand emphasise establishing regular feeding routines which may appear to go against the natural and instinctive approaches passed down by previous generations among Māori whānau (Ministry of Health 2008). Furthermore, given the centrality of whānau in Māori cultural identity, health guidelines which appear even partially at odds with the advice of trusted whānau members may be readily viewed as irrelevant. Therefore, promotion of responsive feeding strategies as opposed to regimented guidelines are likely to be deemed as relevant and applicable by many Māori whānau due to stronger alignment or support of Te Ao Māori centred infant feeding and whānau living.

There was a consistency found across the study population in a general rejection of prescriptive complementary feeding guidelines among young Māori mothers compared to the trust older Māori mothers put in specific guidelines and information. This rejection is related to a common dissatisfaction many Māori experience with mainstream health services due to receiving information that is not helpful or is not communicated effectively, or being on the receiving end of patronising attitudes or behaviours by health care professionals. All of these experiences contribute to a sense of dissatisfaction and rejection of mainstream services and information that does not meet Māori needs (Jansen et al. 2008).

Therefore, advice or information that is perceived as prescriptive (i.e. culturally irrelevant guidelines surrounding when and what to feed infants) is being largely replaced by responsive feeding practices which involve connecting with infants and following their lead with when to start complementary feeding and how to feed them (Gerritsen and Wall 2017; Savage et al. 2018). This demonstrates that baby-led weaning could be a valued practice within Māori communities. However, more widespread research is required to determine the exact prevalence of baby-led weaning as a practice among Māori parents, and the relevance and safety of its promotion towards Māori whānau from mainstream and Māori infant healthcare providers.

This study also highlighted areas of complementary feeding which are of concern to many Māori parents. Many of these concerns were common among participants irrespective of factors such as age and cultural identity. However, concerns regarding support and information from healthcare professionals and the current infant feeding resources were raised predominantly by Māori mothers within the 20–40-year age group. These issues also highlight the need for revisions to infant feeding guidelines and resources in order to capture the values and practices of Māori better and address the concerns outlined. Therefore, infant feeding guidelines, resources and support that promote natural whole foods fed in a responsive manner are likely to be deemed as more relevant and applicable to many Māori whānau due to stronger alignment or support of Te Ao Māori centred infant feeding and whānau living.

This project has allowed the researcher to demonstrate the influence of a variety of beliefs and values held within Māori whānau on infant, and discuss how infant nutrition information, support and services could be altered to better meet the needs of Māori pēpi and whānau.

The reader should keep in mind that the sample of study participants does not comprehensively represent the diversity of the Māori population. This is due to the practical constraints of a small study sample as well as the difficulties faced in recruiting participants with a range of life experiences and backgrounds.

Another limitation of note is the circumstances of conducting what was planned as face-face research during the COVID-19 pandemic. The interviews were scheduled to take place during April-June which fell within the national COVID-19 lockdown period, resulting in all interviews being held via Zoom. This entailed constraints with participant recruitment as participants needed to have access to a computer and internet connection as well as the confidence to use Zoom and interact with an interviewer via this medium.

Conclusion

The themes and theories identified through this project suggest that infant complementary feeding is believed to be a natural and instinctive process for Māori whānau, one that is undergoing a process of decolonisation across generations. It is also clear that many Māori parents desire more culturally relevant infant nutrition information and support. Our findings should inform future updates to infant complementary feeding guidelines within Aotearoa New Zealand, as well as developments in infant nutrition information and support.

Future research

To further this body of knowledge, additional research could be undertaken to investigate how infant complementary feeding has been specifically impacted by colonisation. This could be done by exploring lived experiences of kaumatua as well as oriori and whakatauki. Differences in inter-generational infant complementary feeding values, practices, knowledge, and beliefs among New Zealand Pākehā parents would also be worth exploration. This information would be of value for determining if there is also a general trend towards natural and instinctive feeding practices of whole foods, or if this trend is exclusive to Māori within the application of decolonisation. Future research on infant complementary feeding among Māori could be conducted within a broader study population to include parents who live rurally, and more whānau in lower socio-economic circumstances. And finally, the potential of baby-led weaning as a complementary feeding approach for Māori whānau should be investigated, including its safety for pēpi.

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