

# Māori child rearing and infant sleep practices

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Sleep is important to a healthy lifestyle for parents and children, and having effective ways of putting a child to sleep contributes significantly to mental and physical wellbeing. Cultural groups around the world have developed a variety of approaches to this task, for example, rocking, co-sleeping, bed-sharing, breastfeeding to sleep, and encouraging infants to self-soothe through various methods of infant sleep training. In New Zealand the continuation of traditional Māori approaches to infant sleep, e.g. co-sleeping, bed-sharing, responsiveness to infant cues have been over-shadowed by its negative association with sudden infant death syndrome (SIDS) and dependence on parent interaction when initiating infant sleep. In this study, we were interested in the approaches Māori parents used to put their pēpi (child, 2 months-2 years of age) to sleep and the various factors that have influenced these approaches. Data were collected through online surveys ( $n=58$ ) and face-to-face interviews ( $n=10$ ) with Māori parents. Survey results indicated that being held and breast or bottle fed to sleep were the most practiced techniques by Māori parents. Parent assisted approaches, e.g., rocking, feeding, lying with baby until they go to sleep, were the most practiced. Many parents planned for their babies to sleep separately but very few actually persisted with self-soothing approaches due to a number of factors, such as discomfort with listening to their babies cry, culture, whānau (extended families) influences safety, and convenience. The majority of participants expressed a desire for separate sleep; however, few within the interview group actually successfully practiced separate sleep regularly.

Keywords: Infant sleep, Māori, SIDS, indigenous psychologies

## *Broader perspectives of infant sleep*

Due to the diversity amongst Māori perspectives on infant sleep in New Zealand today, there is growing demand for research that explores infant sleep practices amongst Māori whānau (extended families) (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001). Very little is known about how Māori parents care for their infants in the context of conflicting advice, and how they decide which approaches to try. Research exploring sleep location and approaches to infant sleep may provide insight into how Māori whānau negotiate this important parenting choice.

Sleep patterns in adults and infants are the result of both biological and environmental processes (Jenni & O'Connor, 2005). Biological processes (circadian and homeostatic) determine the duration of sleep needed, which matures during early infancy and varies from person to person (Jenni & O'Connor, 2005; Mindell, Sadeh, Kwon, & Goh, 2013). Sleep patterns develop further as a child is socialized to their environment and the cultured patterns of the context they are in (Owens, 2005). Across cultures, there is broad variation in parents' approaches to infant nighttime care. These variations are driven by cultural expectations and health messages, as well as parents' socialization goals, their physical environment, the nature of support received.

In Japan, for example, cultural values centered around interdependence and collectivity are associated with more parent-assisted approaches to infant sleep and bed-sharing (Jenni & O'Connor, 2005; Mindell, Sadeh, Kwon, & Goh, 2013). Conversely, in the United States, the values of independence and individualism shape sleep practices for infants, with these practices often focused on establishing separate sleep spaces and encouraging infants' self-soothing (Jenni & O'Connor, 2005). Japan, the United States, and New Zealand

are industrialized and technologically advanced societies; however, cultural differences in values and expectations have shaped infant sleep practices in each location, with variations in approaches to soothing infants, bedtime, length of sleep, sleep consolidation, and sleep location (Jenni & O'Connor, 2005; Commons, Miller, & Lamport, 2010; Mindell, Sadeh, Kwon, & Goh, 2013).

Due to the variety of different cultures and traditions around sleep and parenting styles, infant sleep has been a topic of debate in New Zealand for many years (Herbert, 2001; Mindell, Sadeh, Kwon, & Goh, 2013). Western perspectives on infant sleep, which promote separate sleep locations, have been found to be more practiced and promoted in New Zealand, even though these approaches contrast with indigenous cultural values and traditions regarding infant sleep (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001). The continued focus on promotion of separate sleep (Plunket, 2017; Ministry of Health, 2016) may be related to perceptions of an association between bed-sharing and dependence on parent intervention during the initiation of sleep, perceived heightened risk of SIDS, and the need for parents to get sufficient sleep. Further, pressures on parents, such as work and study requirements, have increased the need to establish consolidated sleep (sleeping through the night) from a young age (Sadeh, Tikotzky, & Scher, 2010).

## *Infant sleep in New Zealand*

Abel, Park, Tipene-Leach, Finau, and Lennan (2001) described infant care practices of 150 families who identified as being of Tongan, Samoan, Māori, Cook Islands, Niuean, and Pākehā descent. Māori parents who had strong ties with their Māori whānau and cultural background were more inclined to bed-share and also were more likely to seek advice from

whānau around best practice infant care. Conversely, nuclear Māori families without strong ties to their whānau and cultural background were found to be more likely to place babies in a separate bed/room, as they believed it helped to increase autonomy, make the baby less reliant on their mother, and reduce night time waking (Abel et.al, 2001).

*Māori child rearing and infant sleep practices*

Traditional Māori parenting practices, such as bed-sharing, responsivity to infant cues such as crying, and increased physical contact with parents/caregivers within the hapu (sub-tribe) were documented through intergenerational messages in whānau and tribal practices and narratives, proverbs, oriori (lullabies) and waiata (songs) (Jenkins, Harte, & Ririki., 2011). For example, “He tangi to te tamariki, he whakama to te pakeke” (when the child cries, the elder blushes). This whakatauki (proverb) emphasizes the traditional Māori perspectives toward infant crying. This whakatauki accurately describes traditional Māori perspectives of responsivity to infant signaling and cues, i.e. crying. The whānau contribution plays an important role in overall well-being for Māori and is often described through the use of the Harakeke (Flax) metaphor. Te Rito is the center shoot of the harakeke plant; this new shoot is protected by the outer, wider, more matured leaves which protect the center from the elements and potential damage (Tibble & Ussher, 2012, Cargo, 2016). This metaphor speaks to the importance of whānau support in the overall development of each individual raised in the whānau unit. The acknowledgement of the importance of whānau is vital to economic and social well-being for Māori (Tibble & Ussher, 2012; Ritchie & Ritchie, 1978; Ritchie & Ritchie, 1979; Cargo, 2017).

The raising of pēpi was the collective responsibility of the whānau and hapū. With many parents, grandparents, and older siblings and cousins, a child’s sense of community and social connectedness was deepened and many hands made light work of caring for pēpi, including in their preparation for sleep (Herbert, 2001; Matu, 2015; Ritchie, Ritchie, 1978). Amongst peoples of non-Western cultures, the practice of co-sleeping (separate sleep surface but close proximity); bed-sharing; and parent-assisted sleep practices, such as feeding, lying with baby, and rocking baby to sleep are common. These sleep practices have been associated with positive outcomes including promotion of breastfeeding, the development of independence in children, and higher self-esteem (McKenna & McDade, 2005; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). In Western cultures, self-soothing methods are often promoted as key strategies to support healthy sleep habits in children (McKenna & McDade, 2005).

In addition to these outcomes, bed-sharing, breastfeeding, and increased contact between infant and mother have been associated with reduced infant mortality rates, in the absence of drugs and alcohol (McKenna, Middlemiss, & Tarsha, 2016). Although there is growing evidence for the benefits of bed-sharing, health care providers in New Zealand, as well as most Western locations, advise parents to place their babies in their own separate sleep space to prevent the risk of Sudden Infant Death Syndrome (SIDS) (Tipene-Leach, et al., 2014; Tipene-Leach, et al., 2010; Plunket, 2017)

Traditional Māori childrearing practices promoted co-sleeping, bed-sharing and collectivity amongst the whānau; this increased social cohesion and connectedness, and was believed to produce children who were independent, brave and confident (Jenkins & Harte, 2011). The present study sought to describe what contemporary Māori parents do, think, and feel about their infants’ nighttime sleep. The aim of the study was to describe what approaches Māori parents use to get their babies to sleep, and what factors they identify as influencing their decision-making process when selecting approaches.

**Method**

Kaupapa Māori methodology has guided the processes of conducting this research. These methodologies reflect Māori Tikanga (customs, practices) and offer guidelines which are acknowledged throughout all phases of research (Bishop, 2005; Smith, 1999). This research has been framed in a way that highlights the natural strength, diversity, and mana associated with the Māori whānau that participated in the survey and interviews within this study. Whanaungātanga or positive relationship building (Bishop, 2005; Durie, 1998) has been central to the collection of data within this study. Whanaungātanga acknowledges both the individual and collective members of the community as being pivotal to the development of Māori research as a whole (Mane, 2009). Within this research, whanaungātanga has been evident throughout the process of determining their sample, recruitment of participants, and interview styles.

This study used a mixed-methods approach, with an online survey to collect descriptive information about parenting practices, then interviews with ten Māori parents—enabling parents to tell their stories about how they put their infants to sleep, and why they made those choices.

*Participants*

Overall, 562 parents/primary caregivers with an infant aged between 2 months and 2 years completed the online survey as part of the larger international study. With 11% of the overall sample (n=58) identifying as Māori, it was judged as worthwhile reporting specifically and separately on this group. Ten participants (eight mothers, two fathers) who had completed the online survey were invited and participated in a face-to-face interview. Participants that were approached for interviews were members within my personal community networks such as friends, acquaintances, and colleagues. With ethics approval as part of the research protocol, each participant was approached via Facebook or in person, and the research aims and objectives were outlined. After completion of their online survey, a time was arranged with those who expressed desire to participate further within the interviews.

Table 1

	# completed	# Māori	%
Online surveys	562	58	11%
Interviews	10	10	

**Procedures**

This research was reviewed, approved, and overseen by the University of Waikato School of Psychology Research Ethics Committee. In the online survey, information for participants was presented before entering the survey, and completion of the anonymous survey was taken as consent. Participants had the option, at the end of the survey, of linking to a separate survey where they could volunteer to be interviewed. Interview volunteers were contacted by the first author; the interview process was explained, and if they were interested in proceeding, a time and place (generally in the participant's home) was set. Before the interview took place, participants read an information sheet about the study, discussed any questions, and signed a written consent form.

**Online Survey**

The online survey component of this study was part of the international collaboration and was predetermined. It was not designed specifically for Māori parents but 58 Māori did chose to participate making separate analysis and reporting worthwhile. The survey included demographic information about the caregiver and infant and sleep location and usual night time practices. The survey then presented descriptions of four sleep care routines focused on infants' settling or transition to sleep (Figure 1). Participants were asked to respond to questions about whether they had considered or tried each routine, and if they had, their comfort with it and their rating of its effectiveness. While the survey also included four measures of parenting beliefs, social support, and distress, these were not analysed for report in this paper. The final section asked participants to rate the extent to which various factors such as cultural traditions, religious teaching, written materials, and advice contributed to their decisions about parenting using a visual analog scale ranging from 0 (did not contribute) and 100 (did contribute).

Figure 1: Descriptions of sleep routines

Sleep Training	Sleep training (also called "controlled crying") is when you put the baby down while awake and let them settle to sleep without attending to fussing or crying unless the baby is in physical danger.
Controlled Comforting	Controlled Comforting is where you put baby down to sleep and provide comfort without picking them up, by patting or soothing words, moving to less and less attention and more time between attending
Feeding/Holding	Feeding/holding is where you feed or hold baby until they have fallen asleep and then put down in crib or bassinette
Lying down/Co-sleeping	Lying down/co-sleeping is where you lie down with the baby until the baby falls asleep

**Semi-structured interviews**

Interviews were an opportunity to explore in more depth the experiences of parents and the strategies they used to get their child to sleep. Kanohi-kitea (Face to face) engagement allowed for a more nuanced account of experiences to emerge (McCraig & Dahlberg, 2010). Topics included: a) bedtime routine; b) approaches used to initiate infant sleep; c) sleep location; d) experiences with alternative approaches used to get their babies to sleep; e) positives and negatives associated with their chosen approach; f) where they receive information and advice on infant sleep; and g) to what extent parents thought culture played a role in their approaches to infant sleep. Interviews were audio recorded and participants were provided with a full transcript of their interview to

change, confirm, or withdraw responses as they determined.

**Data analysis**

Data were downloaded from the online survey platform into IBM- SPSS statistics software. Descriptive statistics, including frequencies, mean, standard deviation and range, were generated. With the aid of the NVIVO qualitative data analysis software, transcripts were analyzed using thematic analysis. This process requires the researcher to analyze reoccurring themes and experiences throughout the data (Braun & Clarke, 2006). After the interviews were transcribed, each one was reread and tentative themes were established. These themes were then discussed with the second author. The interview transcripts were then coded for data which related to the tentative themes. The coded examples from transcripts were then reviewed by the second author and the final themes were confirmed.

**Findings**

This section will present and discuss the findings from both the survey and interviews. Survey findings around infant sleep location, sleep initiation techniques, and sleep care routines will be presented and discussed first. The findings from the interviews will follow and are organized into the various themes identified through the thematic analysis. These are: safety, the need for separate sleep, and discomfort with crying, convenience, whānau influence, and culture.

**Survey Results**

The following three themes emerged from the survey data, infant sleep locations, sleep initiation techniques, and sleep care routines. These will now be expanded on individually below.

**Sleep location**

Close to half of participants in this sample planned (43.1%) and preferred (48.3%) for their pēpi to sleep separately from parents. However, fewer participants (32.8%) actually slept separately from their baby. Table 2 shows parents' reported plans, preferences, and actual locations of infant sleep.

Table 2  
Sleep location Māori parents planned, preferred and in practice sleep their babies

Location	Planned		Preferred		Practice	
	N	%	N	%	N	%
Own room	25	43.1	28	48.3	19	32.8
Parents Bed	7	12.1	8	13.8	19	32.8
Pepipod/ Wahakura	1	1.7	0	0	0	0
Shared room with sibling	2	3.4	2	3.4	3	5.2
In cot or bassinette (Close proximity)	14	24.2	12	20.7	7	12.1
In cot or bassinette (Across the room)	7	12.1	6	10.4	7	12.1
In a couch in parent's arms	0	0	0	0	1	1.7
Other	2	3.4	2	3.4	2	3.4
Total	58	100.0	58	100.0	58	100.0

Notes: \* % refers to valid percentage of participants who responded yes to each sleep location

**Sleep initiation techniques**

Participants were asked “How does your baby usually fall asleep at night?” and given the option to select any and all approaches they felt were applicable. Table 3 shows parental responses to this question. A majority of participants typically used parent assisted approaches to initiate infant sleep, including being held and breast/bottle fed to sleep, and rocked or held to sleep.

Table 3

Usual sleep initiation technique reported by Māori parents

	N	%
Held and breastfed/bottle	32	55.2
Rocked or held	13	22.4
Put in the crib while still awake	22	37.9
Other	2	3.4
Total	69	

Notes: Percentages do not add to 100 because the question allowed for multiple responses

**Sleep care routines**

Table 4 shows parents’ responses regarding whether they had tried or considered each of the four sleep routines, and, for those who had used each method, how many times they had used it. Similar to parent reports on their usual practices, the most commonly tried routines were parent-assisted, but about 53% had tried controlled comforting, and 38% had tried infant sleep training. Table 5 shows parent ratings of their comfort with and their perceptions of the effectiveness of each sleep routine; these items were only rated by those who had tried each sleep routine at least once.

Table 4: Parent use of four sleep routines

	Tried	Considered	Never considered	Length of time used		
				1 Night	2-3 nights	4 or more nights
Sleep Training	38.3%(23)	20%(12)	35%(21)	13.6%(3)	53.5(12)	31.8%(7)
Controlled Comforting	52.8%(28)	24.5%(13)	22.6%(12)	12%(3)	32%(8)	56%(14)
Feeding/Holding	96.0%(48)		4%(2)	4.4%(2)		91%(40)
Lying down/Co-sleeping	87.8%(43)	8.2%(4)	4.1%(2)	4.7%(2)	25.6%(11)	69.8%(30)

Table 5: Parent-rated comfort and effectiveness

	mean/sd comfort	mean/sd effectiveness
Sleep Training (n=23)	42.60/31.44	65.00/28.31
Controlled Comforting (n=28)	66.59/26.88	48.4/31.05
Feeding/Holding (n=48)	75.58/31.77	83.51/23.96
Lying down/Co-sleeping (n=43)	76.83/28.95	78.35/25.40

**Interview findings**

Interviews with eight mothers and two fathers shed light on the experiences, thoughts, and reflections of these Māori parents about what they did and why they chose their sleep care practice. The following six themes emerged from the interview findings including, physical safety and emotional security of babies; parents’ discomfort with babies’ crying; the role of convenience and practical considerations; their concerns and questions about their babies’ need for separate sleep at some point in development; the influence of whānau;

and awareness and reflection on the role of culture in making these decisions. These themes are elaborated below.

**Safety**

Safety was a concern that was mentioned by a number of parents. Many bed-shared, but were aware of guidelines for safe sleep, and commented on how they arranged for what they felt was a safe and appropriate sleeping space for their baby.

*So I kind of get up and make the bottle, still wrap him properly make sure that he’s somewhere safe as such, so the blankets are down and he’s on his back with no pillows around him, whatever (Moana) [note pseudonyms are used in place of actual names].*

Some parents referred to the safety issues associated with bed-sharing, such as rolling on baby, blankets overhead, and over-heating.

*Yea they think it’s unsafe, something might happen to the baby, if you’re not there, which I think is the opposite to what I feel, I feel like it’s more danger if they’re in the bed with her, you could roll over onto them or they could fall off the bed without you knowing, and if they’re 18 months old like my son, they could be running around the house all night while I’m sleeping (laughs), so I feel a little opposite to that. (Tiana)*

Parents who were bed-sharing were aware of the associated safety concerns. However, they reported implementing precautions to ensure their babies were safe to sleep alongside them, such as placing baby higher up in the bed, in their own blankets, and away from anything they could roll into. Some parents referred to safety concerns associated with sleeping separately to their baby, as they felt that they would not be able to hear or respond if anything were to happen during the night.

*Yea to make sure that she’s fine, because I don’t want to walk in there one day and see something has happened, or she’s stopped breathing or something and I thought she was just sleeping, so it’s kind of a knowing she’s ok kind of thing. (Nadia)*

*I think just because it was in bed, he’s in a bed now, I thought he could just get up and get out, where if I’m there and he tries to get out then I can put him back, so that’s why I decided to lie down with him, and I don’t mind it, I think it’s nice to have a little cuddles and stuff before he nods off and then that way I think they feel safe, you feel safe knowing that they’re all good, it’s just a more natural approach you know. (Tania)*

**The need for separate sleep**

All parents interviewed expressed a desire to promote separate sleep; however, most parents struggled to actually implement separate sleep. Parents who using parent-assisted approaches to infant sleep found the struggle of having to get up frequently throughout the night to be tiresome and, therefore, would often relocate their babies into their own bed later in the night.

*I didn't have the energy to put her back into her bed, because then she would wake up not long after, so I would just put her with me, and that's how it started out, too lazy to even try doing anything else. (Bianca)*

Although many parents felt they slept better through the night when their babies slept alongside them, they also expressed need for separate sleep due to fear of continued bed-sharing and co-sleeping. All parents that were interviewed talked about the need to establish separate sleep within their children at a young age and self-soothing approaches were seen as being pivotal to this process. The perceived need for separate sleep led to some parents using self-soothing methods; these parents explained that this aided in developing their babies' abilities to settle themselves throughout the night.

*Yeah I just don't want them sleeping with us forever, one of auntie's kids slept with my nan until she was 12, and I do not want that. (Nadia)*

*I think it's more like giving them the confidence to do it by themselves, so that they don't have to have mum, its ok to go and do something on your own kind of thing, well I think that was my push. (Jackie)*

*My only downfall to co-sleeping apart from the safety, is I wouldn't want him to get used to it. (Moana)*

Participants also reported the benefits of having their own bed without the presence of their baby as being influential in their attempts to promote self-soothing methods.

#### Discomfort with crying

Many parents preferred parent-assisted approaches to settle their babies to sleep because of their discomfort in hearing their pēpi cry.

*I just don't have the strength to leave her, I'm just like no, especially when they start crying hard out. But nah I can't do it. (Nadia)*

*I just can't handle hearing them cry for that long and plus it gets them to sleep faster. I mean sometimes its long, sometimes it short. You know its ok to be there for your kids when you're trying to get them to sleep, I think just trust your instincts in the way that you want to get your baby to sleep. (Waiora)*

These parents felt that parent-assisted approaches such as rocking, lying down, and feeding their babies to sleep were easier and more convenient as they didn't have to listen to their pēpi cry for extended periods of time.

*Yea pretty much, and it was easier to put her to sleep that way than just to lie her in her bed and let her cry. Everyone told me to leave her in her bed and let her cry, but I just couldn't do it. (Bianca)*

#### Convenience

The overall convenience of an infant sleep approach was reported by parents as being influential in their decision as to what to use. Most participants described using parent assisted soothing techniques to get their babies to sleep, and three used self-soothing approaches with their babies. Convenience was a consistent theme across all interviews regardless of the approach used to get their babies to sleep.

Those who were bed-sharing and breastfeeding reported that sleeping with their baby was convenient for feeding

*My kids always fell asleep on the breast pretty much, I still breastfeed him every now and then now, sometimes he'll fall asleep like that if he's really exhausted. (Waiora)*

*Nah not until they're older, sort of just get lazy, and watch a movie in bed or something, it's easier with the kids in there with you, instead of putting them to sleep, come back, pause the movie then carry on. (Andre)*

Those who used self-soothing approaches to infant sleep also referred to the convenience of their approach. Parents using self-soothing approaches could simply place infants in the bed, leave the room, and their babies would soothe themselves to sleep. These parents also had more structured routines and could count on consistent bedtimes. Parents who used self-soothing approaches reported longer hours of sleep consolidation, meaning their babies slept through the night. The uniformity, speed, and convenience associated with self-soothing practices strongly influenced parents who chose to use this approach.

*So night times, I've just started getting him into a routine, like a putting himself to sleep routine, so he goes down at about half past 8 – 9, after dinner and a bottle. That takes maybe 5-10 minutes then he's out, then he's out for the whole night. (Jackie)*

The definition of convenience was different for each participant, but overall each family did what suited their needs as parents, and described what they did as the best fit for their whānau.

#### Whānau influence

Some participants spoke about how their previous experience has influenced their decisions. Previous experience includes observations of nieces/nephews, watching family care for pēpi in a certain way, or advice they have been offered by whānau members. Some parents described seeing their siblings use particular methods with their kids, and used their observations to inform their own infant sleep practices.

*I think it's just because that's what my sister does with her daughter, she lies in bed with her. (Tina)*

Parents who were using either parent assisted approaches or self-soothing approaches to initiate infant sleep reported observing family and friends around them, then using these observations to inform their approaches.

*I think it was my older sister, we went out for the morning then got back home and she had put her son down the exact same way, but he's at the stage where he goes into bed and crashes out because he knows it's bed time,*

*there's no tears or anything. Then she just mentioned maybe you should try put him in his cot, because at that time I was rocking him and he wasn't going to sleep, then she just mentioned the putting him down in the room with no distractions, it's just him and his bed. So I did it that night and it just worked. (Jackie)*

*I think that was my family's influence, they were all like whatever just do what you want to do, Mum's real like that, it's your kid, at the end of the day you're the one that has to put up with him. And I think through seeing my sister with her kid, and she's doing it on her own, calling the shots, I'm like aw I can do that too, I used to do it with my nieces, but I think because we were in Oz in the early days I didn't feel in control, then moving back here it was like nah, I can. (Tina)*

Most parents reported that their families had influenced their approaches to infant sleep in positive ways. Conversely, a few perceived advice from family as being more unproductive and sometimes conflicted with their approaches to infant sleep. Some participants using both parent assisted methods of infant sleep and self-soothing methods mentioned feeling unsupported by their extended families whose experiences and approaches at times differed.

*They would say stuff like, why do you put him to bed all the time, why do you put him to bed in his room alone, you should have him with you, you should have him sleeping with you in your bed, why isn't he sleeping with you? But I don't agree. (Tiana)*

*Nah, even because her nana says stop making her fall asleep on you, because I let her do that during the day, then I put her down here (on couch) so I'm always by her, her nan says go put her in the room, but I'm like nah. (Nadia)*

A few participants did talk about how their approaches, particularly bed-sharing, and connection with family were reflective of Māori culture.

*Think for me a lot like I know with being Māori it's a lot about the kids and making sure that they're loved, giving them everything, for me I've got Pakeha friends and stuff, the way that she does it, she's more to the book, you feed them, you put them down if their bum's changed, they're fed, and they're still crying then just let them cry, whereas I can't do that it's just didn't feel right to me kind of thing, but it's a big thing, especially coming from a big family as well, I can't really just do something that doesn't feel right. (Tina)*

Whānau connection and support was a consistent theme mentioned by parents when asked about how their approaches to infant sleep are influenced by cultural factors.

*I think Māori are whānau orientated, I think a midwife told me it takes a village to raise a child, so that to me is so true, in that respect with the whole yes, let your family help you because in Oz it was not so much family but I had friends and it wasn't the same, you could tell the difference, I wouldn't reach out to my friends, whereas*

*here, I don't reach out they just turn up! I have no say in it. But that's what I think you need as a mother, just someone to show up and be like I've got this. (Tina)*

Most participants were hesitant initially to relate their infant sleep practices as being related to their culture. However, when prompted to think about the relationship between their approaches to infant sleep and Māori culture, most offered some examples of how their culture did influence their parenting decisions.

### Discussion

Our findings are consistent with previous research exploring infant sleep in New Zealand (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001) in that Māori parents were more likely to use parent-assisted soothing styles than self-soothing training, and frequently shared a bed with their infants (Tipene-Leach, et al., 2010). Participants who used parent-assisted techniques, such as rocking, feeding, or lying with their baby until they go to sleep, perceived their approach to be convenient, effective, comfortable, and commented that it promoted ease of feeding. Participants felt that parent-assisted approaches helped both parent and baby to sleep for longer with less time spent awake re-soothing. Some research supports differences in infants sleep when infants co-sleep and breastfeed—in that these sleep practices are associated with more time in lighter sleep states due to frequency of feeding, but that total sleep time for infants is similar across infants co-sleeping and infants who settle themselves to sleep (Middlemiss, Yaure, & Huey, 2014). In regards to sleep consolidation, parents who used self-soothing approaches reported that their babies often slept through the night with little to no parent interaction, resulting in extended periods of sleep consolidation, consistent with previous research (Mindell, Sadeh, Kohyama and How, 2010).

### Misconceptions around infant sleep

Recent research has found that certain parenting styles, including the use of parent-assisted soothing styles (rocking, feeding, lying with baby until baby goes to sleep), responsivity, bed-sharing, and co-sleeping may foster secure attachment (Commons, Miller, & Lampert, 2010; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). Parents in our study expressed hesitation continuing the use of parent-assisted approaches because they feared their babies might develop dependency on parent interaction. Longitudinal evidence has found that bed-sharing in the early years of life is not associated with adverse outcomes as an adult (Jenni & O'Connor, 2005) and may be associated with positive outcomes (Middlemiss, Yaure, & Huey, 2014). Research has also shown that the use of parent-assisted approaches and co-sleeping are associated with the development of independence (Mindell, Sadeh, Kohyama, & How, 2010; Sadeh, Tikotzky, & Scher, 2010). However, these parents seem to still be absorbing the message—it is not clear where from—that there is a developmental imperative that children should sleep separately in order to develop appropriate autonomy, as well as accepting the Western value that autonomy is the goal of appropriate parenting (Mitchell, Cowan, & Tipene-Leach, 2016).

Culture and the intergenerational transmission of knowledge

Literature that explores traditional Māori approaches to infant sleep has found that Māori parents were traditionally very responsive to infant crying and typically used parent-assisted techniques to initiate infant sleep (Ritchie & Ritchie, 1978; Jenkins, Harte, & Ririki, 2011; Tipene-Leach, Able, Haretuku, & Everard, 2000; McCreanor, Tipene-Leach, & Abel, 2004; Mitchell, Cowan, & Tipene-Leach, 2016). Māori traditionally “wore their babies” on their backs with the need for their pēpi to be held and remain close at the forefront of successful child rearing (Cargo, 2016). Breastfeeding was seen as an extension of this need for closeness, fostering the bond between both mother and pēpi (Cargo, 2016). The tendency for parents in this study to implement similar approaches to that of their ancestors can be seen as a product of culture and the intergenerational transmission of this knowledge (Jenni & O'Connor, 2005; Tipene-Leach, Able, Haretuku, Everard, 2000; Mc Creanor, Tipene-Leach, Abel, 2004). Most parents did not recognize or conceptualize their approaches to infant sleep as culturally influenced; they just did what felt right to them. This should not be seen as surprising and it would be a significant error to view participants as being without culture. In fact, much of what participants communicated was heavily culturally laden. However, talking about culture as an insider is a very difficult undertaking because such practices are taken-for-granted and rarely called into conversation (Metge & Kinloch, 2014). To talk about culture in the abstract fashion demanded by research is a significant (and perhaps unnatural) skill. Promoting Māori families to identify and practice their need to remain close to their pēpi as a kaupapa Māori approach to infant sleep should be viewed as form of transformative practice (Herbert, 2001, Tipene-Leach, 2016, Cargo, 2017). Through the reclamation of the traditions that have been lost through the process of colonization and acculturation.

### *One size does not fit all*

Interview and survey findings indicate that there was not one way that is consistently seen as right in regards to infant sleep soothing styles. There are benefits for both separate sleep and co-sleeping; however, within the mainstream Western health care system, the only method that is strongly promoted is separate sleep (Plunket, 2017; SIDS and Kids New Zealand, 2014; Ministry of Health, 2016). Development of culturally based education programs which inform parents/whānau/health care professionals about sleep ecology, cultural variations and the down-falls of a one size fits all approach to infant sleep would be extremely beneficial. The research exploring safety around bed-sharing has found that in the absence of smoking, substance use or abuse, and unsafe sleep spaces, there are major benefits to bed-sharing (Tipene-Leach, et.al., 2014; McKenna, Middlemiss, & Tarsha, 2016). More open discussion between Māori whānau and health care professionals, and increased attendance in antenatal and postnatal classes during which time families are in their early phases of establishing a sleep routine might facilitate promotion of safe sleep habits and materials, e.g. wahakura, pēpipod, etc.

### *Promotion of pepi-pods and wahakura*

Very few parents who responded to the survey and no parents in the interview sample were using wahakura or pēpi-pods, although many were bed-sharing with their pēpi. These findings highlight the importance of promoting and providing safe sleeping materials for Māori parents (Tipene-Leach et.al, 2014). The reasons why parents did not use wahakura were not explored within this study. It would also be beneficial to do more research into Māori perspectives on infant sleep approaches and the factors which influence these approaches from a strengths based perspective. One possible outcome of academic literature focused on the negatives of parent assisted approaches is that it is probable that the current issues Māori whānau face in regards to infant sleep will only further perpetuate the lack of engagement in infant related services in New Zealand.

Some parents in both the survey and interview sample did sleep separately, but many did not. Recommendations of a one size fits all approach to infant sleep is ill-informed and fails to encompass the complexities of sleep, especially for Māori. Recommendations for infant sleep should be based on each individual whānau as opposed to recommendations that are consistently the same for all. The findings from this research promote the importance of cultural competency and the inclusion of culturally informed infant sleep recommendations when working with Māori parents.

### **References**

- Abel, S., Park, J., Tipene-Leach, D., Finau, S., & Lennan, M. (2001). Infant care practices in New Zealand. *Social Science & Medicine* 53(9), 1135-1148.
- Anders, T. (1994). Infant Sleep, Nighttime Relationships, and Attachment. *Psychiatry*, 57(1), 11-21.
- Ball, H., & Volpe, L. (2013). Sudden Infant Death Syndrome (SIDS) risk reduction and infant sleep location e Moving the discussion forward. *Social Science & Medicine*, 79, 84-91.
- Blunden, S., Thompson, K., & Dawson, D. (2011). Behavioural sleep treatments and night time crying in infants: Challenging the status quo. *Sleep medicine review*, 15(5), 327-334.
- Braun, V., & Clarke, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Cargo, T. (2016). Kaihau waiū: Attributes gained through mother's milk: The importance of our very first relationships. In *Manu kai i te mātauranga. Indigenous psychology in Aotearoa/New Zealand*. W. Waitoki & M. Levy. New Zealand Psychological Society: Wellington. (p.243-269).
- Commons, M., Miller, P., & Lampion, M. (2010). The benefits of attachment parenting for infants and children: A behavioural developmental view. *Behavioural Development Bulletin*, 16(1), 1-14.
- Cox, J., Holden, J., & Sagvosky, R. (1987). Detection of Postnatal Depression: development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 93(4), 378-390.
- Cutrona, C. (1984). Social Support and Stress in the Transition to Parenthood. *Journal of Abnormal Psychology*, 93(4), 378-390.
- Dahlberg, L., & McCaig, C. (2010). *Practical Research and Evaluation: A Start-to-Finish Guide for Practitioners*. London: Sage.
- Hauck, F., Thompson, J., Tanabe, K., Moon, R., & Vennemann, M. (2011). Breastfeeding and Reduced Risk of Sudden Infant Death Syndrome: A Meta-analysis. *Pediatrics: Official Journal of the*

- American Academy of Pediatrics*, 128(1), 1-8.
- Herbert, A. (2001). Whanau whakapakari: a maori-centred approach to child rearing and parent-training programmes . Thesis (Ph.D)-University of Waikato.
- Houkamau, C. A., & Sibley, C. G. (2011). Māori Cultural Efficacy and Subjective Wellbeing: A Psychological Model and Research Agenda. *Social Indicators Research*, 103(3), 379-398.
- Houkamau, C., & Sibley, C. (2011). Māori Cultural Efficacy and Subjective Wellbeing: A Psychological Model and Research Agenda. *Social Indicators Research*, 103(3), 379-398.
- Jenkins, K., Harte, H., & Ririki, T. K. (2011). Traditional Māori parenting an historical review of literature of traditional Māori child rearing practices in pre-European times. Auckland, NZ: Te Kahui Mana Ririki.
- Jenni, O., & O'Connor, B. (2005). Children's Sleep: An Interplay Between Culture and Biology. *Pediatrics*, 115(1), 204-16.
- Klarckenburg. (1982). Sleep behaviour studied longitudinally. *Acta Paediatrica*, 71(3), 501-506.
- Matu, M. (2015). Maori Issues. *Contemporary Pacific*, 27(1), 273-281.
- McCreanor, T., Tipene-Leach, D., & Abel, S. (2004). The SIDS care-workers study: perceptions of the experience of Māori SIDS families. *Social Policy Journal of New Zealand*, 23, 154-166.
- McKenna, J., & McDade, T. (2005, June). Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding. *Paediatric Respiratory reviews*, 6(2), 134-152.
- McKenna, J., Middlemiss, W., & Tarsha, M. (2016, February). Potential Evolutionary, Neurophysiological, and Developmental Origins of Sudden Infant Death Syndrome and Inconsolable Crying (Colic): Is It About Controlling Breath? *Interdisciplinary Journal of Applied Family studies*, 65(1), 239-258.
- Metge, J., & Kinloch, P. (2014). *Talking past each other: Problems of cross cultural communication*. Wellington , NZ: Victoria University Press.
- Mindel, J., Sadeh, A., Wiegand, a., How, T., & Goh, D. (2010). Cross-cultural differences in infant and toddler sleep. *Sleep Medicine*, 11, 274-280.
- Mindell, J., Sadeh, A., Kohyama, J., & How, T. (2010). Parental behaviours and sleep outcomes in infants and toddlers: Across cultural comparison. *Sleep medicine*, 11(4), 393-399.
- Mindell, J., Sadeh, A., Kwon, R., & Goh, D. (2013). Cross-cultural differences in the sleep of preschool children. *Sleep medicine*, 14(12), 1283-1289.
- Ministry of Health. (2016). Keeping baby safe in bed: 6 weeks to 6 months. Retrieved from Safe sleep: Ministry of Health: <http://www.health.govt.nz/your-health/pregnancy-and-kids/first-year/first-6-weeks/keeping-baby-safe-bed-first-6-weeks>
- Ministry of Social Development. (2009). *The social report. New Zealand*. Retrieved from Ministry of Social Development.
- Mitchell, E., B, T., Ford, R., Stewart, A., D, B., Thompson, J., Roberts, A. (1992). Four modifiable and other major risk factors for cot death: The New Zealand study. *Journal of Peadiactrics and Child Health*, 28(1), 53-58.
- Mitchell, E., Cowan, S., & Tipene-Leach, D. (2016). The recent fall in post perinatal mortality in New Zealand and the Safe Sleep programme. *Acta Peadiatrica*, 1312-1320 .
- Owens, J. (2005). Introduction: Culture and Sleep in Children. *Pediatrics*, 115(1), 201-203.
- Plunket. (2017). *Sleep-Plunket* . Retrieved from Plunket : <https://www.plunket.org.nz/your-child/newborn-to-6-weeks/sleep/>
- Ritchie, J., & Ritchie, J. (1979). Growing up in Polynesia. Sydney: George Allen & Unwin Australia.
- Ritchie, J., & Ritchie, J. (1978). *Growing up in New Zealand*, 1-150. Sydney, N.S.W. : George Allen & Unwin.
- Rushbrook, M. (2013). Inequality and New Zealand. *Inequality: A New Zealand crisis* , 20-36.
- Sadeh, A., Tikotzky, L., & Scher, A. (2010). Parenting and infant sleep. *Sleep Medicine Reviews*, 14(2), 89-96.
- Sameroff, J., & Feil, L. (1985). Parental concepts of development. *In Parental belief systems: the psychological consequences for children* (pp. 83-105).
- SIDS and Kids New Zealand. (2014). *Safe Sleeping*. Retrieved from SIDS and Kids: <http://www.sidsandkids.org.nz/safe-sleeping>
- Tipene-Leach, D., Able, D., Haretuku, R., & Everard, C. (2000). The Māori SIDS Prevention Programme: Challenges and implications of Māori. *Social Policy Journal of New Zealand*, 65-77.
- Tipene-Leach, D., Baddock, S., Williams, S., Jones, R., Tangiora, A., Abel, S., & Taylor, B. (2014). Methodology and recruitment for a randomised controlled trial to evaluate the safety of wahakura for infant bedsharing. *BMC Pediatrics*, 14, 1-11.
- Tipene-Leach, D., Hutchinson, L., Tangiora, A., Rea, C., White, R., Stewart, A., & Mitchell, E. (2010). SIDS- related knowledge and infant care practices among Maori mothers. *The New Zealand Medical Journal*, 123(1326), 88-96.
- Winstanley, A., & Gattis, M. (2013). The Baby Care Questionnaire: A measure of parenting principles and practices during infancy. *Infant and Behavior Development*, 36(4), 762-775.

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