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**Rock-a-bye Baby:  
Infant care and parenting around sleep**

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of the requirements for the degree

of

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by

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## **Abstract**

This research is a part of a wider international study which explores infant sleep amongst various ethnicities and cultures. This study has explored infant sleep practices in New Zealand, with a specific focus on Māori child rearing practices. This study aimed to firstly, explore what techniques Māori parents use to get their pēpi to sleep (2 months- 2 years of age). Secondly, this study aimed to understand the various factors that influence parents' decisions to use their particular method e.g. Parent assisted approaches (rocking, co-sleeping, bed sharing breastfeeding to sleep), or self-soothing infant sleep methods (cry it out, controlled comforting). Mixed methods were used to collect the data for this study. Overall, 562 primary caregivers/parents completed the survey component of this study with 11 percent identifying as Māori. A further 10 were taken from the survey sample and participated in face to face interviews.

The results show that parent assisted techniques such as rocking, lying down with baby, and feeding to sleep were the most practiced approach to infant sleep for Māori whanau across the survey and interview findings. Participants within the interview study that used parent assisted techniques to initiate infant sleep were also more likely to bed-share with their babies. Self-soothing techniques such as controlled comforting and cry it out were practiced by a number of parents within the survey and interview groups. The findings from this study suggest that a number of different factors influence parenting style. Survey data found that culture, books, magazines, online material and advice from family were the most influential factors in parenting styles. The interviews findings suggest that the convenience of an approach, whanau influence, being a parent of more than one child, environmental factors, healthcare recommendations, safety and culture all influenced aspects of their approaches to infant sleep.

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## **Chapter 1: Literature Review**

### **Rational: Māori Child Rearing and Infant Sleep Practices**

It is well known that infant sleep can be challenging for parents at times, as infants can wake frequently throughout the night (Sadeh, Tikotzky, & Scher, 2010). This unpredictable and challenging night-time waking schedule does not fit well into the current industrialized work schedule. Strong empirical and social support has been built over the years for the implementation of infant sleep routines and approaches that promote babies to self-soothe in western industrialized countries (Blunden, Thompson, & Dawson, 2011; Sadeh, Tikotzky, & Scher, 2010). Infant sleep practices are a largely culturally based and vary significantly between cultures (Mindell, Sadeh, Kohyama, & How, 2010). Māori parents throughout history have practiced co-sleeping and bed sharing accompanied by techniques that soothe their babies to sleep with little discomfort for both parent and baby, e.g. rocking, feeding to sleep, lying with their babies until they go to sleep (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001; Ball & Volpe, 2013). Since the signing of the treaty in 1840, contemporary Māori whanau structures have shifted from the shared parenting roles, responsivity, and co-sleeping/bed-sharing which Māori traditionally implemented and have been replaced by the promotion of western ideals (Matu, 2015; Jenkins, Harte, & Ririki., 2011)

### **Traditional Māori Perspectives on Child Rearing**

Jenkins, Harte, & Ririki (2011) explain how traditional Māori parenting practices such as co-sleeping, responsivity to infant cues such as crying, and increased physical contact with parents/caregivers within the hapu were documented through messages in myths, legends, Māori proverbs, and oriori (lullabies). The creation story

is one such legend which highlights not only Māori people's connection with the natural environment but also Māori perspectives on reproduction and parenting (Le Grice & Braun, 2016). Before the beginning of time Ranginui and Papatuanuku were created as gods of this earth and gave birth to their children. Their children were wedged between their parents in a land of darkness where they quickly grew tired of the limited space which led the siblings to plot against their parents and separate them. The creation legend where Ranginui (sky father) and Papatuanuku (earth mother) are pushed apart by their tamariki (children) references socializing tools and goals for tamariki such as bravery, independence, and collectivity within the whanau/hapu (small tribal confederation) (Le Grice & Braun, 2016). The children of Ranginui and Papatuanuku acted upon their individual needs to be free from their parent's grasp but also worked collaboratively to achieve the same goal. This is one such legend which has been passed on from generation to generation which provides values and lessons applicable to parenting styles.

Traditionally the raising of pepi (baby's) was the collective responsibility of the hapu (Herbet, 2001; Matu, 2015). Pepi were often carried around on their parent's backs, until they become more mobile and then they were encouraged to lean on older children within the hapu for support, deepening their sense of community and social connectedness (Ritchie & Ritchie, 1997). The whanau is a fundamental part of Māori society. The whanau contribution plays an important role in over-all well-being 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). This metaphor speaks to the importance of whanau support

in the overall development of each individual raised in the whanau unit. The acknowledgement of the importance of whanau is vital to economic and social well-being for Māori (Tibble & Ussher, 2012; Ritchie & Ritchie, 1997; Ritchie & Ritchie, Growing up in Polynesia , 1979). Many Māori proverbs have also been used over the years to articulate the traditional values of parenting (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 e.g. crying. Traditional Māori perceptions of childrearing place emphasis on respect, care, and love amongst the whanau unit.

Ritchie and Ritchie (1997) conducted a study in Murupara, New Zealand, which re-examined earlier studies conducted by Earnest and Pearl Beaglehole (1946). The study explored how Māori families reared their children. Ritchie and Ritchie explain that “children were born into a community of kinship and membership, concern and care” (1997, p21). Observations made by Ritchie and Ritchie (1997) highlight the warm and loving nature Māori parents would show toward their infants, stating that pepi were present at meetings and family gatherings, with all members of the whanau taking turns to care for and entertain pepi. Ritchie and Ritchie (1997) explain that sleeping arrangements did not follow a strict format, and infants were rarely left to sleep alone. Ritchie and Ritchie (1997) explain that there were many benefits to having multiple whanau to support the raising of new tamariki within the hapu.

*When you have many parents the social world of affection and attachment spreads wide, the admonishing voices that reprimand are not personal but*

*collective, the hands that reach out to cuff or slap or check are neither impersonal nor personal but somehow both* (pp 28)

Industrialization and urbanization promoted a shift toward individual family housing as opposed to community shared living areas in the 1900's (Koea, 2008; Matu, 2015). Bed-sharing and co-sleeping are strongly entrenched throughout Māori history and are still practiced amongst some Māori in New Zealand today (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001; Tipene-Leach, et al., 2010). However, there is growing pressure for parents to implement separate sleep as increased rates of sudden infant death syndrome have been associated with bed-sharing (Blunden, Thompson, & Dawson, 2011).

### **Co-sleeping and Bed Sharing Definitions**

Co sleeping and bed sharing labels are often used interchangeably when referring to sleeping with your baby. However, in reality there is a lot of variation in co-sleeping and bed sharing. The result of these terms being misused is that all forms of co-sleeping and bed sharing are thought to be associated with sudden infant death syndrome (SIDS); however, Mckenna and McDade (2005) argue that safe forms of co-sleeping and bed sharing actually have positive benefits. Co-sleeping and bed-sharing labels are not clearly defined within the parenting and infant sleep related literature as well as within casual conversation between parents and professionals alike.

**Co-sleeping:** Mckenna and McDade (2005) define co-sleeping as infants who sleep on a different sleep surface within close proximity to their parents (e.g. pepi pod, wahakura, or a bassinette attached to the bed), which supports monitoring of baby throughout the night and the exchange of caregiver and infant sensory signals.

**Bed sharing:** Mckenna and McDade (2005) define bed-sharing as parent and infant

sleeping on the same sleep surface within close proximity to one another (same bed). Bed sharing, where parent and infant sleep on the same sleep space, is associated with higher rates of SIDS when coupled with a number of other risk factors e.g. non-elected bed-sharing in low socioeconomic conditions, smoking, and not breastfeeding. When parents are bed sharing due to a lack of space, it is likely to lead to different outcomes as opposed to bed sharing which is planned and used to promote breastfeeding and nurture baby (McKenna, Middlemiss, & Tarsha, 2016)

## **SIDS**

Sudden infant death syndrome (SIDS) is a rare and deeply heartbreaking experience for any parent to go through. In New Zealand, SIDS mortality rates between 2003– 2007 were 1.1 per 1000 live births, with between 50–85 babies dying annually (Tipene-Leach, et al., 2014). Tipene-Leach and colleagues (2014) also found that 62 percent of SIDS deaths were Māori children. Over half of Māori mothers who participated within this study identified as smokers which is one of the main risk factors for SIDS and also co-slept with their infants (Tipene-Leach, et al., 2014). Today, traditional approaches to infant sleep such as co-sleeping, which Māori instinctively value, are practiced less as co-sleeping and bed-sharing have been negatively associated with the increased risk of SIDS (Mindell, Sadeh, Kohyama, & How, 2010; Tipene-Leach, et al., 2014). Early research into casual factors of SIDS in the early 1990's reported three factors that accounted for 79% of SIDS in New Zealand. These were prone infant sleeping position, maternal smoking in pregnancy, and not breastfeeding (Mitchell, et al., 1992). This research has led to the implementation of government initiatives, such as the New Zealand Cot Death Prevention Program which aimed to reduce SIDS rates, especially within low socioeconomic areas, as higher rates

have been linked with low economic status (Ball & Volpe, 2013). Although recommendations are focused on establishing separate sleep with the overall aim of reducing rates of SIDS, many parents are still sharing their sleep spaces with their babies to this day (Ball & Volpe, 2013; Abel, Park, Tipene-Leach, Finau, & Lennan, 2001). This is likely due to the failure of recommendations (i.e. separate sleep) to recognize the importance of bed sharing in certain cultural and ethnic groups (Jenni & O'Connor, 2005; Tipene-Leach, et al., 2010)

Tipene-Leach & colleagues (2010) asked N= 299 mothers, both Māori and non-Māori, about their current infant sleep practices and knowledge around SIDS and infant care (infants ranged in age from 6 weeks- 4 months). Results from their study show that 36 percent of Māori parents had soft objects in close proximity to infants when they were sleeping (e.g. blankets, pillows, toys), 13 percent reported habitual prone sleeping, and 21 percent of mothers reported smoking and sleeping on the same sleep surface as their baby. Knowledge around the association between maternal smoking and SIDS was reported by only 25 percent of participants across Māori and non-Māori participants, with 27 percent of these responses coming from Māori participants (Tipene-Leach, et al., 2010). Results from this study also show that Māori parents were less likely to access information in regards to infant sleep from health care services e.g. midwives, plunket, tamariki ora, and antenatal classes.

High rates of SIDS amongst Māori whanau combined with the lack of participation in services which offer education around risk factors for SIDS such as antenatal classes have led to the implementation of the 'Wahakura' (Tipene-Leach, et al., 2010; Tipene-Leach, et al., 2014). The Wahakura is a culturally appropriate response to infant co-sleeping in an attempt to reduce the rates of SIDS. A Wahakura

is a 14 inch by 28 inch bassinet structure made from woven flax and is derived from traditional Maori infant sleeping practice and is in line with the 2005 American Academy of Pediatrics SIDS prevention recommendations (Tipene-Leach, et al., 2014). The Wahakura is a cultural reclamation of an item used traditionally in Māori society in the effort to continue the valued practice of co-sleeping while maintaining the safety of the infant (Tipene-Leach et.al, 2014). The Wahakura is one example of a culturally based interventions which incorporates the values of Māori whanau and the practice of co-sleeping as well as reducing the risk of SIDS. Wahakura are promoted by health care professionals; however, they are becoming increasingly harder to access as the Ministry of Health funding has fluctuated in recent years (Tipene-Leach, et al., 2014)

### **Health Care Providers for Māori Parents in New Zealand**

The Ministry of Health in New Zealand provides recommendations for infant sleep which health care providers and services are obligated to recommend to new parents. Well Child provides (Plunket and Tamariki Ora) services to more than 90 percent of all new babies in New Zealand, with approximately 22 percent identifying as Māori. Approximately 80 percent of parents of all Māori newborn babies access these services. Plunket and Tamariki Ora offer advice for parents and provide health and developmental checks for children from birth to five years. Infant sleep recommendations made by these health care professionals are heavily influenced by rates of SIDS within New Zealand. There are a number of different websites which provide safe sleep recommendations for parents. These websites advise parents to breastfeed, sleep baby in parents' room for the first 6-12months, place their babies in their own separate sleep space, on their back, within a smoke-free environment

(Ministry of Health, 2016; Plunket, 2017; SIDS and Kids New Zealand , 2014). The lack of acknowledgement made to the role culture plays in parenting styles and infant sleep has led to the implementation of recommendations for separate sleep amongst healthcare professionals that do not meet the needs of Māori parents and have ultimately led to disengagement in services (Ball & Volpe, 2013; Tipene-Leach, et al., 2014)

### **Culture and Infant Sleep**

Often people are accustomed to seeing culture as sets of values, norms, and ways of thinking, however, the intergenerational transmission of knowledge is often over-looked as being a product of culture (Jenni & O'Connor, 2005). From this perspective, culture is more accurately described as a way of being which shapes the way humans learn and behave. Cross-cultural issues have more recently been explored within developmental, psychological and anthropological research. The negative effects of ignoring cultural variations has resulted in the over-representation of minority groups, such as Māori, in many negative social indicators, such as mental illness, general health disparities, lower education outcomes, unemployment, poverty, imprisonment and also SIDS rates (Ministry of Social Development, 2009; Houkamau & Sibley, 2011).

Sleep patterns in adults and infants are the result of both biological and environmental processes (Jenni & O'Connor, 2005). Early research into infant sleep promoted the importance of healthy sleep patterns in the development of physical health and emotion regulation (Jenni & O'Connor, 2005). Research exploring biological processes behind sleep have shown that humans need sleep firstly to restore brain metabolism, and secondly, to consolidate memory and learning. Biological

processes (circadian and homeostatic) determine the duration of sleep needed, which matures during early infancy and varies from person to person (Anders, 1994; Jenni & O'Connor, 2005)

Expectations and approaches used to initiate infant sleep are also heavily influenced by environmental and cultural variations. Infant sleep is a process of socialization and acculturation that begins at birth (Owens, 2005). In Japan, cultural values are centered around interdependence and collectivity, which promote more parent-assisted approaches to infant sleep and bed-sharing. Conversely, In the United States of America the values of independence and competitiveness shape sleep practices for infants which are focused on establishing separate sleep and self-soothing (Jenni & O'Connor, 2005). Both Japan and the United States of America are industrialized societies; however, cultural differences in values and expectations have shaped infant sleep styles which differ vastly from each other including variations in the approaches to soothing infants to sleep, bedtime, length of sleep, sleep consolidation, and sleep location (Jenni & O'Connor, 2005; Commons, Miller, & Lamport, 2010). Culture also influences what is deemed as the norm and also what is viewed as problematic in regards to infant sleep. For example, in many south European countries, it is the norm to eat dinner and go to bed later at night; however, in other countries bedtimes are often implemented earlier in the evening, and it might be considered inappropriate for an infant to be awake at a time that would be considered normal for an infant in another country. (Jenni & O'Connor, 2005; Commons, Miller, & Lamport, 2010)

The variations in infant sleep practices across cultures further highlight the need for cultural competency amongst health care professionals. As many health care

professionals are interacting with new parents on a regular basis, it is pivotal to understand the basic dimensions of cultural differences and how they influence each whanau and baby (Jenni & O'Connor, 2005). This is perhaps even more important when working with disadvantaged minority groups. The development of independence and self-control are desirable traits to foster within infants and children for many parents not only within new Zealand (Sadeh, Tikotzky, & Scher, 2010; Mindell, Sadeh, Kohyama, & How, 2010). However, within Western culture, separate sleep is often described as the catalyst to establishing these traits, whilst bed sharing is commonly reported as producing the opposite outcome i.e. a clingy child (Mindel, Sadeh, Wiegand, How, & Goh, 2010).

### **The Need for Separate Sleep**

Infant sleep has been a topic of debate for many years especially within New Zealand due to the variety of different cultures and traditions around sleep and parenting styles (Mindel, Sadeh, Wiegand, How, & Goh, 2010). Western perspectives on infant sleep which promote separate sleep are still more practiced and promoted within New Zealand even though these approaches often oppose differing cultural values and traditions of infant sleep (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001). The continued promotion and aspiration for parents to implement western perspectives on infant sleep are related to a number of factors. Co-sleeping's association with dependence on parent intervention during the initiation of infant sleep, perceived risk of SIDS, and the need for parents to get sufficient sleep all provide explanations as to why traditional practices on infant sleep have become less practiced. Social pressures on parents such as work and study requirements have increased the need to establish consolidated sleep from a young age so parents are able to provide

financial stability for their families (Sadeh, Tikotzky, & Scher, 2010). The industrialized work schedule requires parents to get adequate levels of sleep so they can complete their own work requirements. Worthman (2011) explains that

“Globalization and the forces of rapid social change are transforming the developmental niche in many ways. These include changing daily schedules for new forms of labor, introduction of mass media and technologies, altered settlement patterns (particularly urbanization) and housing, and shifts in family household structure. Each of these transformations likely has profound effects on sleep ecology and behavior. These changes furthermore impose different demands on attention and emotion regulation that raise the stakes for understanding how corresponding changes in the developmental niche influences development of these systems, including sleep” pp 177

Bed sharing’s association with SIDS has also promoted a shift away from the continuation of traditional practices to the promotion of separate sleep (Tipene-Leach, et al., 2014). Research has identified particular risk factors which increase the likelihood of SIDS including, smoking, objects in the bed, and parental substance/alcohol use (Tipene-Leach, et al., 2010). Alternative research exploring the positives associated with co-sleeping has acknowledged that when done safely, co-sleeping acts as a protective factor for SIDS (McKenna, Mosko, Dungy, & Mcaninch, 1990; Mckenna & McDade, 2005); however, western perspectives on infant sleep have not changed to incorporate these findings.

Dependence on parent soothing and continued co-sleeping as children develop also continues to effect parent’s decisions to co-sleep or not. Parents and some health care providers often refer to separate sleep as being the catalyst for independence and

autonomy in children. However, this has been researched extensively and results fail to support this hypothesis (Keller & Goldberg, 2004). Worthman (2011) argues that “sleep should occur in social groups, for safety and as an extension of group life”, pp 171. A comprehensive ethnographic sample of 173 traditional societies around the world found that bed-sharing, noisy sleep settings, irregular bedtimes, and increased parent contact were extremely common across many traditional societies (Worthman, 2011). Worthman (2011) argues that this approach to sleep offers security and comfort through social settings. Conversely, Worthman (2011) observed postmodern industrial societies implement low contact sleep conditions, scheduled bedtimes with consolidated sleep, darkness, and silence. Longitudinal evidence has found that bed-sharing in the early years of life has no association with adverse negative outcomes as an adult (Klarckenburg, 1982; Jenni & O'Connor, 2005), although popular culture still holds fast to the downfalls of co-sleeping and bed sharing.

Although the research has shown that no one way of infant sleep or soothing style is best, western cultural groups still heavily practice separate sleep as parents continue to perpetuate this approach as being the most successful (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001). The continued support for separate sleep is why there is high demand for sleep methods that propose to “maximize individuality and independence for children at an earlier age” (Blunden, Thompson, & Dawson, 2011). Mindell, Sadeh, Kohyama and How (2010) conducted a cross-cultural study to assess how parental behaviors and other factors of sleep ecology influence sleep outcomes. This study was conducted using a large sample (29,287) of children and infants aged from birth to 36 months in multiple countries and regions including New Zealand. Their study concluded that co-sleeping was associated with “poorer sleep, including going to

bed over an hour later, waking almost twice as much at night, and obtaining less sleep at night and overall” (p 398). The findings from this research more accurately reflect western perceptions toward co-sleeping and infant sleep. The need for separate sleep has led to high demand for behavioral sleep treatments which aim to reduce night time waking, to alleviate parent sleep disturbance (Blunden et.al, 2010). Mindell and colleagues (2010) promote behavioral sleep training techniques to address issues around infant sleep including, frequent waking, and co-sleeping.

### **Behavioral Sleep Training**

Behavioral sleep training techniques in their varying forms are frequently used as an approach to infant night time crying, more commonly in western societies such as the United States of America, Australia, and New Zealand (Blunden et.al, 2010). These techniques recommend that parents leave their babies to self-soothe to sleep. These techniques often induce crying, and parents are advised not to console their baby by picking them up and soothing them. Behavioral sleep training techniques promote babies to develop their own soothing strategies. The development of self-soothing strategies is said to lead to longer periods of sustained sleep, and little parent interaction prior to, and during bed time (Mindell, Sadeh, Kohyama, & How, 2010; Sadeh, Tikotzky, & Scher, 2010).

Traditional Māori attitudes and perspectives toward infant crying vary vastly from the western perspectives. Infant crying was viewed as being indicative of parental flaws and an inability to nurture and support their babies when upset (Jenkins & Harte, 2011). When infants cry, their biological attachment systems are activated (Courage, Howe, & Eisenberg, 2002). In extreme cases ignoring infant crying can damage the social systems that establish and maintain relationships of reciprocity (Blunden,

Thompson, & Dawson, 2011). Research supporting the potential psychological damage from insecure attachment in infancy has likely influenced the discontinuation of recommendations for behavioral sleep training methods made by health care professionals in New Zealand (Blunden, Thompson, & Dawson, 2011).

The Plunket website on infant sleep advises parents that continued parent interaction during bedtime will lead to dependency on parent interaction (Plunket, 2017), they advise to try putting infants to bed whilst still awake to familiarize themselves with their sleep space. Infant sleep has become a profitable business in New Zealand as more and more parents look for solutions to their infant sleep ‘problems’ such as waking throughout the night, and not being able to self-soothe. The Baby Sleep Consultant New Zealand is one such example (Baby Sleep Consultant New Zealand, 2015). These infant sleep programs advise parents to let their babies cry set intervals (between 5-10 minutes); if they continue to cry, parents are advised to re-enter and provide verbal reassurance, with little physical interaction, before exiting the room again to promote self-soothing (Kid Spot, 2016). Behavioral sleep training techniques and controlled crying often call for parents to sleep their babies in a separate room. With half of New Zealand’s population earning less than \$24,000 per annum and statistics highlighting the increasing levels of poverty amongst Māori and Pasifika, we can begin to see how overcrowding for some families is unavoidable as the cost of living has exceeded many New Zealanders income earned (Ministry of Social Development, 2009; Rushbrook, 2013).

### **Infant Sleep in New Zealand**

A study was conducted by Abel, Park, Tipene-Leach, Finau, and Lennan (2001), which explored infant care practices of 150 participants, both male and female,

who identified as being of Tongan, Samoan, Māori, Cook Islands, Niuean, and Pakeha descent. The findings from the study indicated that Māori parents who had strong ties with their whanau (family) and cultural background were more inclined to co-sleep and also more likely to seek advice from whanau around best practice infant care. Conversely, nuclear Māori families without strong ties to their whanau and cultural background were found to in most cases to place babies in a separate bed/ room, as they believed it helped to increase autonomy, and make the baby less reliant on their mother (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001). Common perceptions amongst participants also highlighted the evident confusion around what the best practice was, leaving parents more inclined to adopt western infant care practices. Guidance around infant sleep is informed by safe sleep policies and readily promoted to parents through services such as Plunket, antenatal services, midwives, and medical professionals (Abel et.al, 2001).

As Abel and colleagues (2001) highlighted, now more nuclear Māori families are practicing infant sleep methods which are reflective of the dominant culture, which argues that co-sleeping and attachment styles of parenting produce infants who have less autonomy and are more likely to wake frequently throughout the night (Abel et.al, 2001; Mindell et.al, 2010). In contrast, traditional Māori childrearing practices promote co-sleeping, bed-sharing, and collectivity amongst the whanau, aimed at producing children who were independent, brave and confident (Jenkins & Harte, 2011).

### **The Benefits of Co-sleeping**

There is growing support and research that suggests that when practiced safely (without maternal smoking in pregnancy), co-sleeping is a protective factor for SIDS, as increased mother-infant contact aids in regulating breathing patterns, and promotes

breastfeeding (McKenna, 1990; Mckenna & McDade, 2005; McKenna, Middlemiss, & Tarsha, 2016; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). There is emerging research which highlights the positives associated with co-sleeping, including promotion of breastfeeding, the overall development of confidence and independence in children (McKenna, Middlemiss, & Tarsha, 2016; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011; Klarckenburg, 1982). The promotion of co-sleeping has been found to support healthy breastfeeding habits in infants, especially within the first few months of life. Co-sleeping, breastfeeding and increased contact between infant and mothers have been associated with reduced infant mortality rates in the absence of drugs and alcohol (McKenna, Middlemiss, & Tarsha, 2016; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). Research also suggests that breastfeeding, when done exclusively (without mixed feeding with formula) significantly decreases the overall likelihood of SIDS (Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). Although there is growing support for co-sleeping amongst the research literature, health care providers within New Zealand advise parents to place their babies in their own separate sleep space to prevent the risk of SIDS (Plunket, 2017; SIDS and Kids New Zealand , 2014; Baby Sleep Consultant New Zealand , 2015).

Attachment parenting styles argue that by basing all infant related routines, including sleep, around infant cues and signals, parents will naturally foster their child's independence and autonomy. Attachment parenting perspectives argue that practices such as infant sleep should be child- centered as opposed to parent- centered (Commons & Miller, 2010). Decisions regarding infant sleep should be formulated based on the natural cues the infant gives off. Attachment parenting practices are

loosely grounded in the attachment theory that was established collaboratively by Ainsworth and Bowlby (1991). Bretherton (1992) states that “they revolutionized our thinking about a child's tie to the mother and its disruption through separation, deprivation, and bereavement” (p 759). Attachment theory argues that infants establish a secure attachment with primary caregivers which forms the basis of social and emotional development.

This attachment also acts as a motivational and behavioral system, which directs the infant to remain in close proximity of their caregiver (Bretherton, 1992). Attachment parenting styles promote the use of co-sleeping as a means of bonding but also to aid in syncing physiological responses to sleep between mother and infant (Commons, Miller, & Lamport, 2010). Breathing, along with other behaviors which occur while asleep, aid in regulating an infant’s physiological functions (Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). Commons & Miller (2010) explain that parents and infants who co-sleep and breastfeed experience more time in lighter sleep states due to frequency of feeding; however, the overall time spent awake is reduced for co-sleeping parent and infants.

## **Conclusion**

This literature review has explored the social and cultural realities of some of the most controversial issues related to infant sleep. The social and environmental pressures which influence parents to use any one particular approach have been explored including low income, the industrialized work schedule and the need for autonomy at an early age. These social and environmental pressures provide insight into why demand for self-soothing approaches are so widely promoted and practiced within western societies such as New Zealand. Conversely, the benefits of co-sleeping

including development of independence, the promotion of breastfeeding, and the reduction in risk for SIDS have also been discussed to provide an alternative perspective. Care of infants and practices around infant sleep vary widely both across and within cultures (Mindell, Sadeh, Kohyama, & How, 2010 (Jenni & O'Connor, 2005). Many new parents experience strong opinions when discussing infant sleep with various people (whanau, professionals, friends). At times advice that parents receive can be conflicting and confusing about what to do to take care both of themselves and their developing baby's needs.

Current research suggests that Māori parents vary in their chosen infant sleep methods (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001). However, little is known about how parents actually implement these methods, or how they choose which approaches to try. Many factors contribute to parents' decisions to sleep separately, or within close proximity to their pepi. With all the advice and opinions currently held within society, new parents must find a balance, provide structure and routine and be sensitive and responsive to the infant's cues and needs. Where parents fall on these dimensions may vary depending on a variety of cognitive, cultural, and social factors. With such varying and strong opinions around infant sleep present within New Zealand there is a growing demand for research which explores how Māori parents get their babies to sleep but also how they come to decide on their particular method of infant sleep. Research exploring sleep location and approaches to infant sleep will provide insight into not only the frequency of co-sleeping and bed-sharing but also the prevalence of separate sleep and self-soothing styles amongst Māori whanau. Understanding Māori parents' current approaches to infant sleep more broadly explores the prevalence of western based approaches as well as tradition Māori approaches.

Exploring the factors which influence parenting styles and infant sleep will also aid in understanding whether the positives of traditional approaches to infant sleep and culture are influential in parents' decisions to use specific approaches to infant sleep.

## **Chapter 2: 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). Kaupapa Māori methodologies provide a philosophy of being and acting Māori, which as researchers, we can align with research motivations and objectives. Kaupapa Māori methodologies support critical theory in that they are both an analysis of existing power structures and social inequality (Smith, 1999). Within this study power struggles between western dominant perceptions of infant sleep versus traditional Māori perspectives continue to be a topic of debate amongst Māori and non-Māori alike.

Kaupapa Māori methodologies aim to operationalize Tino rangatiratanga (Self determination). Tino rangatiratanga promotes the advancement and development of Māori flourishing which creates a strengths based approach to conducting research as opposed to deficit focused (Eketone, 2008). Research conducted by Māori, and for the overall benefit of Māori, are also critical elements of kaupapa Māori research (Smith, 1999). Each of these elements have been implemented within the development and application of this research. This research will be framed in a way that highlights the natural strength, diversity, and mana associated with the Māori whanau that participated in the survey and interviews within this study. Whanaungatanga or positive relationship building (Bishop R. , 2005; Durie, 1998) has been central to the collection of data within this study. Whanaungatanga 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, whanaungatanga has been evident throughout the of process of determining their sample, recruitment of

participants, and interview styles.

## **Participants**

The main focus of this study was to understand what infant sleep practices Māori parents use with their pepi (2 months- 2 years of age). An online survey was developed as part of the broader New Zealand study. Currently 562 parents/primary caregivers have completed the survey, with 11 percent (N=58) identifying as Māori with an infant aged between 2 months and 2 years. The results from the Maori participants are reported in this study. In addition, 10 participants (8 mothers, 2 fathers) who had completed the online survey were invited and participated in a face-to-face interview.

## **Research Design**

Both quantitative and qualitative methods were used within this study to enable the collection of data relevant to both research objectives. The quantitative component of this research was administered via self-completion questionnaire to capture the general outlook on infant sleep practices from a larger sample of Māori whanau. The qualitative aspect of this research was conducted through semi-structured interviews. Social realities, such as infant sleep practices, specific to each participant are comprehensively assessed in depth through a qualitative approach. Semi-structured interviews to a smaller sample are also useful, as they provide flexibility when further exploring topics of interest (Dahlberg & McCaig, 2010; Smith, 1999)

Objective 1: Explore infant sleep practices Māori parents are implementing with their pepi (2 months- 2 years of age).

Objective 2: Explore where parents receive/seek advice from, and how it affects their perceptions of infant sleep i.e. Plunket, antenatal groups, health professionals, whanau

or friends

The topics covered within the survey and interviews are discussed in depth below; however, there are consistent topics which reflect areas of interest for this study. Those areas include infant sleep location, infant sleep techniques, perceived comfort levels associated with different approaches, and factors influencing decision making.

### **Online survey**

The online survey component of this study was part of the international collaboration and was predetermined. It was not designed specifically for Maori parents but 58 Māori did chose to participate making separate analysis and reporting worthwhile. The survey aimed to capture a general overview of infant sleep practices. The survey includes a combination of questions designed for this study and measures developed previously. The survey collected a) demographic information about the caregiver and infant; b) sleep location and night-time practices, and the parent's perceptions of others' support for this; and c) descriptions of four sleep care routines, and questions about whether they had considered or tried a routine, and if they had, their experiences with it. The survey also included d) the Baby Care Questionnaire, a 35-item instrument that asks about beliefs about the value of routine and responsiveness in the domains of infant sleep, feeding, and soothing (Winstanley & Gattis, 2013). The Concepts of Development Questionnaire, a 20-item scale that measures the extent to which parents think in categorical versus 'perspectivist' (taking into account multiple factors or contributors to the child's behavior) terms (Sameroff & Feil, 1985). The Social Provisions Scale, a ten-item questionnaire about the extent to which people feel supported and valued in close relationships (Cutrona, 1984) the Edinburgh Postnatal Depression Scale (EPDS) is a ten-item scale to assess distress (depression and anxiety) (Cox, Holden, & Sagvosky, 1987). The final section f) 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.

Survey participant responses which were used to inform the findings of this study referred to infant sleep location, infant soothing techniques, parent comfort levels associated with their chosen technique, and perceived factors influencing their parenting styles. The specific sections within the survey that were analyzed for the purpose of this study include:

- Sleep location explored where parents planned and preferred for their babies to sleep, and where in practice their babies actually sleep; see print version of online survey (Appendix C). This information provides insight into participants' initial intentions for their babies, their wants or aspirations for infant sleep placement, and how figures align with infant sleep placement in practice.
- Infant sleep techniques were also explored within this study. Participants were asked how they get their baby to sleep each night, e.g. being held and breastfed/bottle fed, rocked or held, put in the crib while still awake, or other approaches. This information provided data from the online survey sample in regards to frequency of participants implementing Baby-led approaches to infant sleep which are parent-assisted and more responsive in nature, as opposed to parent-led which are focused on infants self-soothing. Participants' perception of their own comfort levels associated with their infant sleep technique were then collected.

- Sleep care routines were also used to inform the findings of this study e.g. cry it out, controlled comforting, feeding or holding, Lying down/co-sleeping, and other. Participant responses related to whether they have considered or tried this routine, and their experience with it was gathered to understand how heavily practiced each of the sleep care routines are used amongst Māori whanau.
- The final section of the survey used to inform this study refers to participants' ratings in relation to the extent to which various factors such as cultural traditions, religious teaching, written materials, and advice contribute to their decisions about parenting.

### **Semi-structured interviews**

Interviews were an opportunity to explore in more depth the experiences of parents and the strategies they used to get their pepi to sleep. Kanohi-kitea (meeting face to face) with participants throughout the recruitment and interview processes facilitated whanaungatanga, which fostered the strengthening of relationships (Smith, 1999). Face-to Face engagement with all participants allowed for a more nuanced account of experiences to emerge (Jones, Ingham, Davies, & Cram, 2010; Dahlberg & McCaig, 2010) and an opportunity to prompt for culture specific strategies parents might have employed. Participants were provided with an information sheet about the study before signing the consent form. The interviewer then went through the interview template which included topics for conversation at the interview (Appendix B). They included: bed time routine; where and how they get their baby to sleep; other methods they have used to get their babies to sleep; positives and negatives associated with their chosen approach; and where they receive information and advice on infant sleep. As

culture is a shared phenomenon, this final topic is where we expected culturally informed strategies to emerge (e.g., this is how my mother taught me).

Audio-recorded interviews were completed at a time and place suitable for participants. Interviews were often held in participants' own home, in turn promoting open and comfortable sharing. Within two weeks from the interview, participants were provided with a full anonymized transcript to change, confirm or withdraw responses as they determined. Full transcripts of interviews offer a raw and unfiltered view of the data collected from each participant, where data can be retracted or edited if needed.

### **Recruiting and Selecting Participants**

#### **Online survey**

Those who had participated in the survey were prompted to answer questions related to how they first heard about the study, which provided raw data, which was statically analyzed, through SPSS, to provide insight into recruitment statistics. Overall, 68.9 percent of participants were recruited from Facebook (N= 31). Recruitment posters were posted on parenting / infant sleep related Facebook pages e.g. Mums Mag, baby sleep consultant, Mothers Milk charitable trust, Baby Hints and Tips, Mum2Mum, Baby blues, Hamilton buy and sell, Outie New Born baby, Baby center. Parents who were interested in participating could follow an online link to complete the survey. Overall, 20 percent of respondents from the survey were forwarded the link by a friend (N= 9). Overall, 15 participants of the 58 that participated in the overall survey, declined to answer the question which asks where you heard about the study from. Recruitment posters, Radio interviews (Radio Waatea), and print news advertisements were completed for this study; however, they gauged little response from Māori whanau. Recruitment posters were also placed around the University of Waikato campus.

### **Semi-structured interviews**

Participants that were approached for interviews were members within my personal community networks such as friends, acquaintances, and colleagues. Each participant was approached via Facebook or in person, and the research aims and objectives were outlined. The recruitment poster was then forwarded on (Appendix D), where participants could follow a link to complete the online survey. After completion of their online survey, a time was arranged with those who expressed desire to participate further within the interviews.

### **Data Analysis**

#### **Online Survey**

Statistical analysis of the survey was completed in order to provide summaries of the approaches to infant sleep used by our sample of parents, their comfort of discomfort associated with each approach, and factors which influenced their decision to use their approach. IBM- SPSS statistics software was used for statistical analysis of the online survey responses. Descriptive statistics including frequencies, mean, standard deviation and range were used to analyze data needed for the purpose of this study. Frequencies inform the researcher as to how many participants responded to each question of interest within the survey data. The mean represents the average of all responses related to a specific question. The range represents the difference between the highest and lowest values within the data set.

Survey questions which were included within this data analysis are structured response questions e.g. Where had you planned to have your child sleep at night (after 9 or 10 pm)? e.g. In his/her own bed, In my bed, In my bed in a portable sleeper/pepi pod, In shared bedroom with sibling, In a cot or bassinette, or other. Structured response questions are presented within frequency tables (Table 1), which provide a visual

representation of the figures collected from this study's survey sample. Other forms of survey questions which will be explored within this study are slider style responses e.g. How comfortable do you feel with this nighttime routine? Participants are then asked to move the slider scale to rate their level of comfortableness with their nighttime routine out of 100. The values provided from slider response questions were then structured into histograms, offering clear visual representations of the distribution of responses from participants (Figure 1).

### **Semi structured interviews**

Transcriptions were analyzed through the process of thematic analysis. This process requires the researcher to analyze reoccurring themes and experiences throughout the data (Braun & Clarke, 2006). Raw data from interview transcripts was systematically coded using Nvivo data analyze software. Key themes were then established from the existing codes, reviewed and refined into topics of interest reflective of participant responses and research objectives.

### **Ethical Statement**

This research was guided by, and strictly adhered to the ethical regulations set by the University of Waikato School of Psychology Research and Ethics Committee. The key principles in the *Human Research Guidelines* are as follows:

- obtaining voluntary informed consent
- respecting the privacy of participants, along with explaining the limitations to privacy
- using methods which are culturally appropriate to the sample group

Furthermore, the *Code of Ethics for Psychologists Working in Aotearoa/New Zealand* (New Zealand Psychological Society, 2002) has been used to inform this research

design.

### **Informed Consent**

The Code of Ethics for Psychologists Working in Aotearoa/New Zealand principle 1.7 outlines the responsibility of the psychologist to gain explicit informed consent from any participants in research. An information sheet was provided to participants outlining the purpose, aims, objectives and the requirements of the research (Appendix E). The survey was anonymous, where participants viewed the information page and gave consent before beginning. The survey link provided an information sheet and consent form prior to starting the online survey. The information sheet confirmed participant and researcher expectations as well as explained that their participation is voluntary. Each participant read through the information sheet before signing the informed consent form. Participants were informed of their right to withdraw or change any information they have provided to the researcher, up to one week after receiving the interview transcript.

### **The Privacy of Participants**

The participant's privacy is protected through the implementation of an anonymity practice. This is achieved by suppressing information about the participant which could be potentially identifiable, such as, names and job positions. Identifiable information was extracted from the interview transcriptions and the final report to ensure the identity of participants is hidden. There is a possibility that participants may be identified through participant responses which could potentially be linked to them; however, any risk of a breach to privacy was explained to all participants in this research in depth (prior to interviews and via the information sheet and consent forms). Non-anonymised data such as audio recordings, consent forms, and participant contact

information is only accessible by the researchers and participants upon request.

### **Storage of Data**

Electronic audio files from semi-structured interviews were protected by password on a personal electronic device. Consent forms (hard copy) and contact information are kept in a locked filing cabinet only accessible by the researcher. The anonymised data were made available to the researcher's supervisors in the event they wish to access it for the purposes of this thesis.

### **Dissemination of research and findings**

#### **The final report**

The final report will be submitted to the University of Waikato School of Psychology for marking. The University of Waikato will hold full ownership of the final report. The researcher also requests the right to forward an electronic copy of a summary of results to any participants who have indicated (on their consent form) that they would like to see the final outcomes of the research.

#### **The data**

The researcher will retain full ownership of the data collected (audio recordings, photos and interview summaries) and not include this as a provision with the report, to ensure the full privacy of participants and the information they provide.

## **Findings**

### **Chapter 3: How Māori Parents get their Babies to Sleep**

#### **Infant Sleep Techniques**

This section will discuss the results gathered from both the survey and interviews. Survey findings will be presented then enriched by interview data. Ten interviews (8 mothers, 2 fathers) were completed, and analyzed to provide an in depth account of how these parents get their babies to sleep. Survey data will provide an overview of infant sleep approaches across a wider sample. Overall, 58 primary caregivers participated in the online survey.

#### **Survey Findings**

The quantitative survey was disseminated through social media and by word of mouth. Overall 562 primary caregivers of infants aged 6 months to 2 years of age, have completed this survey to date. With 11 percent (N=58) of participants identifying as Māori. The data explored within these findings are taken directly from the online survey responses. The items which are pivotal to this study prompt parents to reflect on where they had planned, and prefer their babies to sleep, and in practice where participant's babies actually sleep. The various infant sleep methods participants have used, in the past and currently were then explored for the purpose of this study. Participants' levels of efficacy and comfort in relation to their approaches to infant sleep were then explored.

#### **Sleep location**

This section of the results will discuss participant responses from survey items which ask where parents had planned and preferred their babies to sleep, along with the actual location of where their babies sleep. Potential infant sleep locations participants could choose include baby sleeping in their own room, baby sleeping in their parents bed

(Bed-sharing or co-sleeping), A shared room with a sibling (separate to parents), A cot/bassinet/pepi pod (within close proximity to parents), A cot/bassinet/pepi pod (across the room from parents), or other responses. Other sleep locations can both be classified as putting baby down in their own bed to begin the night, then relocating into the parents' bed as the night progresses.

Table 1  
*Sleep location Māori parents planned, preferred and in practice sleep their babies*

Location	<u>Planned</u>		<u>Preferred</u>		<u>Practice</u>	
	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 bassinet (Close proximity)	14	24.2	12	20.7	7	12.1
In cot or bassinet (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*

Table 1 shows that close to half of participants within this sample planned (43.1 percent), and preferred (48.3 percent) for their pepi to sleep separately from parents. These figures decreased when reporting responses related to where parents actually place their babies to sleep (32.8 percent). Between 12.1 -13.8 percent of participants planned, and preferred to place baby in the parent's bed at night; however, in practice, participant responses related to sleeping with parents (bed sharing/co-sleeping) increased by more than half (32.8 percent). These figures highlight that very few participants within this survey had planned to sleep with their babies; however, many participants did sleep regularly within the same sleep space as their pepi. These figures offer some insight into parent's initial stances on infant sleep, their aspirations for their babies sleep, and how these have varied over time.

### **Infant sleep techniques**

The data explored within this section refers to responses from the survey items which ask "how does your baby usually fall asleep at night". Potential approaches which participants could select within the survey included being held and breastfed/bottle fed, rocked or held, put in the crib while still awake, or other approaches. Participants were provided a text box to explain their alternative approach in depth if needed. Participants were given the option to select any/all approaches which were applicable to them. Overall, 69 responses were recorded for this survey item (N=58 participants in online survey sample + 11 additional responses made). Table 2 represents the frequencies and valid percentages of participants related to each soothing approach.

Table 2

*Descriptive statistics representing infant sleep approaches used by Māori parents*

	f	%
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: \*f = frequency of participants who responded to that question. Percentages do not add to 100 because the question allowed for multiple responses.*

*\* % refers to valid percentage of respondents*

Overall 55.2 percent (N= 32) of participants' reported breastfeeding or bottle feeding their baby to sleep. Being put down in the crib while still awake was used by 37.9 percent (N=22) of participants to get their babies to sleep. Overall 22.4 percent (N= 13) of participants reported rocking or holding/Cuddling their babies until they fell asleep. Other approaches to infant sleep were also reported by 3.4 (N=2) percent of participants'. Other approaches mentioned were not reflective of those already measured within the previous sections i.e. rocked to sleep, breast or bottle fed to sleep, and put down in crib while still awake. Other approaches included using a pacifier and verbal reassurance to get their babies to sleep.

These figures show that more than half of participants within this survey sample used parent assisted approaches to initiate infant sleep, including, being held and breast/bottle fed to sleep, and rocked or held to sleep. These figures provide insight into the frequency of participants implementing baby-led approaches to infant sleep, which are centered on responsiveness to baby's immediate cues e.g. crying. Conversely, Parent-led approaches to infant sleep, which promote babies to self-soothe at an early age; which were reported to be used by 31.8 percent of participants.

### **Sleep care routines**

This section of the results will discuss survey responses specific to sleep care

routines e.g. sleep training, controlled comforting, feeding and holding, and lying with baby until they go to sleep. Each participant was asked if they had tried each routine; if they had, then participants were forwarded on to answer questions related to the amount of time they used each routine for e.g. one night, two to three nights or more than four nights. After discussing time spent using each routine, participants were promoted to reflect on their comfort levels associated with their chosen routine, and how effective they perceive the approach to be. Participants were asked to provide scores out of 100 related to the efficacy and comfort levels associated with each approach, 0 being not effective/uncomfortable, 100 being extremely effective/comfortable at initiating infant sleep.

#### **Sleep training/controlled crying**

Sleep training or controlled crying is explained as a process of initiating infant sleep, where baby learns to self soothe. Parents are advised to place their babies in bed while still awake and leave them there (often whilst crying) until they go to sleep. Parents are allowed to enter the babies room at set intervals (10-15 minutes on average) to soothe baby and then place him/her back into bed and leave the room again.

Results from this study show that of the N=58 participants who provided responses to this question, 38.3 percent (N=23) said yes, they have tried sleep training routines. 20 percent (N=12) said they considered using it but never tried it, and 35 percent (N=21) said they would never consider using this method. Participants who agreed to having used this routine (N=23) were then asked how long they had used this sleep care routine for. 13.6 percent (N=3) had used sleep training for one night only, 31.8 percent (N=7) had used this approach for four or more nights. The highest figures related to time spent using sleep training routines, related to two or three nights using this method. Over half of the respondents that had used sleep training routines (54.5

percent, N=12) only used the approach for two to three nights before discontinuing.

These figures show that of the N=22 parents that responded yes to having tried sleep training routines, only 7 practiced these on an ongoing basis for longer than just a couple of nights. N= 19 participants provided scores out of 100 related to the efficacy of each approach. Participants reported that overall sleep training was an effective way at initiating infant sleep (M= 65.00, SD= 28.31). 15.8 percent (N=3) of respondents scored this approach below 50, meaning they found the approach not very effective. 84.2 percent (N=16) of participants scored sleep training over 50 points, meaning they found it to be effective at getting their babies to sleep. Of the 16 participants that placed their scores over 50 points, N=9 of them placed their scores at or above 75 points, which means 47.4 percent of the sample that responded to this question reported that this is an extremely effective way of initiating infant sleep. When participants were asked how comfortable they felt using sleep training routines, over half of respondents scored their comfort levels at or below 50 points (M=42.60, SD = 31.44). This shows that 63.2 percent of parents that responded yes to using sleep training routine, felt somewhat uncomfortable using this method to initiate infant sleep.

### **Controlled comforting**

Controlled comforting was described as an approach to initiating infant sleep where parents leave their babies in a cot or bassinet to self soothe. Parents comfort their babies with touch and verbal reassurance without picking them up, at set intervals (10-15 minutes on average). 52.8 percent (N=28) of total respondents (N=58), reported using controlled comforting to initiate infant sleep. 24.5 percent (N=13) of participants reported not using this approach, but considered using it in the past. 22.6 percent (N=12) of participants never considered using this approach with their babies. Of the N=28 parents that said they had used controlled comforting routines, N=25 provided

responses to the number of times they used this approach. 12 percent (N=3) of participants used controlled comforting once, 32 percent (N=8) used it for two or three nights before discontinuing, and 56 percent (N=14) said they used it for four or more nights. Participants that responded yes to having used controlled comforting were then asked how effective they found this routine at initiating infant sleep. Overall, 56.5 (N=13) percent of participants rated this approach over 50 points, meaning that over half of participants found controlled comforting to be a relatively effective way of initiating infant sleep (M=48.04, SD= 31.05). Overall 39.1 percent (N=9) of participants scored this approach below 50, meaning that close to a third of participants did not find this approach to be very effective. Participants then provided responses related to their comfort levels associated with controlled comforting routines (N=22). 77.3 percent (N=17) of participants scored this routine over 50 points, meaning that the majority of participants who had tried this approach were very comfortable in using controlled comforting to initiate infant sleep (M= 66.59, SD= 26.88). Only 22.7 percent (N=5) of participants rated this routine below 50 points.

### **Feeding and holding**

This approach can be understood as simply breastfeeding/bottle feeding, whilst holding your baby to initiate infant sleep. This means that baby falls asleep during or after feeding, and being cuddled. Overall N=50 participants of the total sample (N=58) responded to questions related to the number of times they have used feeding and holding routines to initiate infant sleep. 96 percent (N=48) of participants had tried this approach, and 4 percent (N=2) reported never considering using this approach. Of the 48 parents that responded yes to using feeding and holding to initiate infant sleep, 45 also provided responses to questions related to the amount of time they used this approach. 4.4 percent (N=2) of participants used this approach once, and another 4.4

percent (N= 2) used this approach for two or three nights. 91.1 percent of participants reported using this approach for four or more nights. These figures show that nearly all of the parents within the survey sample have tried feeding and holding to initiate infant sleep, and continued to use it for more than four days.

There were N= 45 participants from the sample that provided responses to questions related to efficacy and comfort levels associated with feeding and holding baby until they go to sleep. Only 11.1 (N=5) percent of participants scored the effectiveness of this approach below 50, meaning that the majority, 89.9 percent (N=40) of parents found feeding and holding their baby until they fell asleep to be an effective way of initiating infant sleep (M= 83.51, SD= 23.96). Participant scores of comfort levels associated with this routine followed a similar trend, with 15.5 percent (N=7) of participants scoring their comfort levels related to feeding and holding to sleep below 50 points. These figures show that most parents, 84.4 percent (N=38), were very comfortable in using feeding and holding to initiate infant sleep (M= 75.58, SD= 31.77).

### **Lying down/ Co-sleeping**

This approach can be understood as the parent lying alongside or co-sleeping with their baby until the baby goes to sleep. Of the N=58 participants that participated in the online survey, N=49 responded to questions related to using this sleep routine. Over all 87.8 percent (N=43) of participants said they had co-slept/lay down to sleep with their baby, 8.2 percent (N=4) reported considering it but not trying it, and 4.1 percent (N=2) never considered using this approach to initiate infant sleep. Those that had tried co-sleeping/laying down went on to respond to questions related to the amount of times they have used the method, the efficacy, and comfort levels associated with this approach. The majority of participants, 69.8 percent (N=30) reported that they

used co-sleeping/ laying down with their babies until they went sleep for four or more nights. 25.6 percent (N=11) of participants reported using this approach for two to three nights before discontinuing, and 4.7 percent (N=2) reported only co-sleeping/laying down for one night. 11.6 percent (N=5) of participants scored the efficacy of this approach below 50 points, meaning that five parents did not find this approach very effective at getting their baby to sleep. Most participants, 88.4 percent (N=38), reported co-sleeping/laying down with their baby as an effective approach to initiating infant sleep (M= 78.35, SD= 25.40). Over half of participants (58.1 percent, N=25) scored this approach over 75 points, which means that the majority found co-sleeping/laydown with their babies to be an extremely effective approach to infant sleep. 16.6 percent (N=7) of participants who reported comfort levels associated with this approach felt uncomfortable with co-sleeping/ laying down with their baby until they went to sleep. Conversely, 83.3 percent (N=35) felt comfortable in initiating this approach, with over half of participants scoring their comfort levels above 90 points (M=76.83, SD=28.95).

Overall, these figures show that most participants had used parent assisted sleep care routines at some point e.g. feeding and holding, and co-sleeping/laying with baby until they go to sleep. Participants also reported being very comfortable when using these approaches, and also found it to be extremely effective at getting their babies to sleep. The majority of this online survey sample reported not trying sleep training routines; of those that had tried it, only seven participants continued to use it for more than four nights. Those that did use this approach to initiate infant sleep reported that it was extremely effective. However, most participants also reported feeling somewhat uncomfortable with sleep training routines. Controlled comforting approaches to infant sleep were reported by more than half of participants; those that had used it found it to

be effective and comfortable to implement.

### **Semi-structured Interview findings**

This section will discuss interview responses in regards to bedtime routines participants use with their babies. Ten interviews were completed in total. Interview questions referred to how they get their babies to sleep e.g. Parent assisted approaches or self-soothing methods. Participants were then asked how effective their approach was at getting their babies to sleep. The themes discussed below were identified through thematic analysis.

#### **Parent assisted sleep approaches**

These approaches can be understood as infant sleep techniques which are initiated by parents and lead to baby falling asleep with parent support. As opposed to those techniques which promote baby to self-soothe, and initiate sleep on their own. Methods included within parent assisted sleep approaches include being held and breastfed to sleep, and being rocked and held to sleep, and other responses.

Within the face to face interviews, participants explained that they used parent assisted approaches to initiate infant sleep. A range of techniques were being used by parents including feeding, rocking, playing music, and lying with baby until they go to sleep. Parent assisted approaches to infant sleep were the most used by parents within. When parents were asked how their night time routine is usually implemented we received a number of varied responses. Their responses gave insight into the specific methods these parents were using to get their babies to sleep, along with the perception of difficulty or ease associated with their chosen approach. It was also common for parents to use a number of different methods in conjunction with one another. Combinations varied between parents; however, a common example would include feeding and lying with baby until they go to sleep. Rocking or continuous motion

techniques were one of the commonly implemented approaches to infant sleep, with a number of parents we interviewed using this approach.

*Literally, in both arms, he loves snuggling, so he'll snuggle into my chest, and I'm just bouncing up and down, patting his bum, always patting, and then he's asleep [Participant 02]*

*I just bounce with her, lean back, half lying flat, like I'm going to sleep, and I just kind of rock her [Participant 07]*

Another method used by parents was lying with their child in their bed, or their parents' bed until they go to sleep. This approach was often used alongside feeding to sleep, and was also perceived to be effective at getting baby to sleep. Effectiveness was dependent on the child's level of sleepiness and less dependent on a set and routinely implemented bedtime.

*We both take one of them into bed, and I take baby, we have a bit of a sing song, and a cuddle, then I say that's enough sing song now. We shut our eyes, he thinks I'm going to sleep with him, and he thinks aw cool mums going to sleep with me and then he just drifts off, then I sneakily leave the room [Participant 05]*

*Nah nah, we lie with her, she sleeps with us, so me and her dad lie with her, and just have the music playing while she having her bottle, then*

*she'll just crash out [Participant 06].*

Some parents also breast fed or bottle fed to sleep. This approach was often used in conjunction with other methods such as rocking or lying with baby until they fall asleep.

*I'll jump in he'll have his bottle, and I think just the comfort of having me there, he'll often go to sleep. If he doesn't then I kind of have to stay, there until he goes to sleep [Participant 05]*

*Yeah it's usually rocked to sleep, sometimes, if she has a boob, she'll go to sleep while she's feeding, then she'll be out, but depends some nights, she's naughty and sometimes she's not, sometimes I have to rock her to sleep [Participant 07]*

Participants reported parent assisted approaches to infant sleep as being effective but very dependent on the the child and their level of sleepiness. Parent assisted approaches to sleep were often reflective of less rigidity to routines. The average time it took to get baby to sleep did vary across those parents that used rocking/continuous motion.

*Most of the time, depends how tired she is, it's usually pretty easy [Participant 07]*

*I wouldn't say, it's not easy, he's very hit and miss. Even throughout*

*him growing up we always tried different things, and sometimes it worked and sometimes it doesn't so were very much like, we just take it as it goes [Participant 03]*

Unlike self-soothing infant sleep methods, which involve letting baby cry for a pre-set amount of time, the parent assisted approaches were found by parents within the sample to induce very little crying, as parents are present throughout the entire process. Many parents within the interview sample held negative impressions toward their babies crying for extended periods of time, parent assisted approaches were perceived to be successful in getting baby to sleep and often referred to as “easy” and “convenient”.

Co- sleeping or bed-sharing was in most cases an extension of the methods they were currently using to promote sleep. Parents would often refer to a combination of parent assisted approaches used to soothe their babies, then baby would be put down to sleep, then often relocated into the parents bed or re-settled using another form of parent assisted techniques.

### **Co-sleeping/ bed sharing**

Within this sample, those that were sleeping with their babies were bed sharing, as opposed to co-sleeping, as they did not have separate sleep surfaces for their babies i.e. pepi pod, bassinette attached to bed, wahakura. Parents shared commonalities in their beliefs, views, and perceptions toward bed sharing which heavily impacted on their choice to bed share. Parents that did bed share with their babies openly discussed their experiences within the interview process.

*Baby sleeps in our bed, with older sister as well, we've just always slept*

*with them, I tried not to with baby but she was clingy, she never liked to be alone [Participant 06].*

When asked about their perceptions of bedtime and their approach to infant sleep, parents that bed shared mentioned it worked well to get their babies to sleep. Some parents would often begin the night with their babies in a separate sleep space, then as the night progressed baby was more likely to come into the parents bed during night feeds or night time waking.

*Yeah so our bed is here and his bed is next to ours, sort of in the middle of the night he'll have a little cry and I'll jump in with him or he'll jump in with us [Participant 03].*

Safety was another consideration that was frequently mentioned throughout interviews by those that were bed-sharing. Parents referred to safe sleep practices and incorporated these into their approaches.

*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, I just lean over bottles in, my eyes are closed, and eventually I'll feel that the bottle is empty, the bottles then on the floor and I'm back to sleep [Participant 02].*

Autonomy and the ability to self-soothe as babies age was a prominent concern across most interviews but especially for those who were bed-sharing. Parents referred to the fear of continued bed-sharing and potential negative impacts associated with continued co-sleeping and bed sharing. Overall, parents perceived the practice of co-sleeping to be effective for baby; however, it was also negatively associated with a fear of dependence on the parent to initiate sleep.

*My only downfall to co-sleeping apart from the safety is I wouldn't want him to get used to it [Participant 02].*

*Yeah I just don't want them sleeping with us forever, one of aunties kids slept with my nan until she was 12, and I do not want that [Participant 06].*

Convenience and personal preference were found to be the main factors contributing to the continuation of bed sharing amongst the interview sample. Many parents found that both parent and baby were able to sleep for longer periods of time, along with breast/bottle feed (especially within those parents that breastfed) with ease when co-sleeping.

*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 [Participant 06].*

A few parents within the interview sample were living with other family and simply did not have the space to initiate and maintain separate sleep routines. Overcrowded housing was found to be one factor which influenced parent's ability to implement separate sleep approaches with their infants (see section 2 of findings).

### **Controlled comforting**

The ability to self-soothe and sustain longer sleep periods throughout the night is one of the positives associated with controlled comforting approaches. Within this study's interview sample, parents were also drawn to these benefits of self-soothing approaches. All parents discussed the need to establish a self-soothing routine, although very few had successfully implemented these approaches with their pēpi. Those parents that had, found the approach to be effective at getting their babies to sleep.

*At 7:30 we put the kids in the room, give them a cuddle and a kiss, tell them we love them, and then just leave them [Participant 01].*

Bedtime routines were often more consistently implemented with little variation in the length of time it would take to get their babies to sleep. Parents and infants that used self-soothing approaches showed more rigid in routine structure over all. Parents were able to provide a specific time their babies would be placed in their beds, how long they would cry before they sleep, and a regular time their baby would be asleep by most nights.

*So I put him in his cot with his dummy in his mouth, he'll cry for a bit 5-10 minutes, he's only just starting to get used to it and then he'll*

*crash out but if sometimes it's too hard I'll sit outside the door*  
*[Participant 04].*

Although few participants had successfully implemented behavioral sleep training methods to initiate infant sleep, many had tried them over their time as parents. In the initial stages of establishing separate sleep routines, all parents referred to the difficulties of listening to their babies cry for extended periods of time. Listening to their baby crying was often part of the reason why a lot of the other parents within the interview sample discontinued behavioral sleep training methods. However, for those that did continue, crying was seen as a necessary step to take when initiating separate sleep.

*He puts himself to sleep, its pretty good, so much better, he sleeps a lot longer, mum says they cry out all their energy and sleep for longer*  
*[Participant 04].*

Self-soothing approaches were reported by parents to be more difficult to implement in the early phases, in comparison to parent-assisted, or co-sleeping and bed sharing approaches.

*I would say persevere and push through because it does take a while and then it's not perfect when it is good, there's still nights when it's rough, you still get woken and sometimes it's early morning, it's fine, you just push through, even if they cry for a while, I know baby took a*

*few months before he would settle quickly, so he wouldn't settle for maybe 45 mins maybe up to an hour, so I would just check him make sure that he was safe, and fine [Participant 01].*

Once parents had established a consistent bedtime routine, implemented regularly, self-soothing methods were seen as extremely effective and efficient approaches to initiate infant sleep. Those parents that were using behavioral sleep training approaches also found that their babies had longer periods of sleep consolidation throughout the night.

*He'll sleep through the night until around 7 30, probably about 12 hours [Participant 01].*

*I feel it's because when he wakes, he doesn't feel worried, he doesn't feel like he needs someone to comfort him, he's happy to just relax and lie there and put himself back to sleep, like we do, because that's what he's done, I feel like he's not scared or worried about why he's alone [Participant 01].*

The ability to self-soothe, independent from their parents was reported to be a skill which not only helped them to initiate sleep but also to sustain longer sleep periods throughout the night.

### **Summary**

This section of the results found that parent assisted approaches to infant sleep were the most practiced. Those that used these approaches found them to be extremely

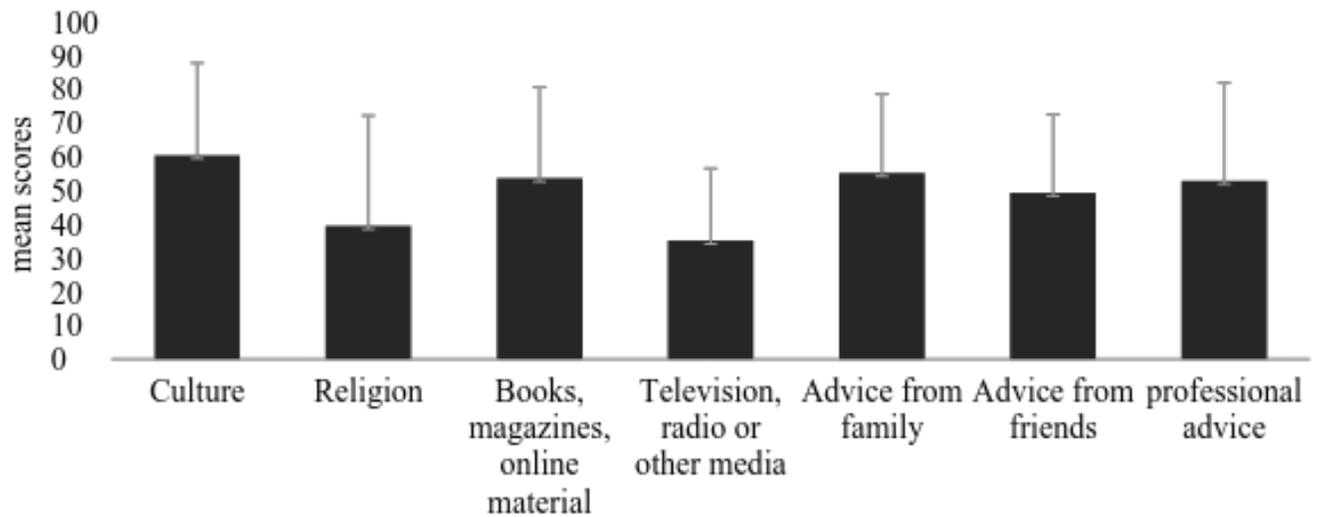
effective, and felt comfortable practicing them with their babies on a regular basis. Survey and interview findings support similar outcomes, in that parents find it easy to hold, and rock their babies, then sleep alongside them either immediately or at some point during the night. Close to half of the online survey sample did not plan or prefer to sleep with their babies, but in practice those numbers increased. Participants using self-soothing approaches to infant sleep within the survey and interview sample reported that they were extremely effective at getting their babies to sleep.

## **Chapter 4: Factors Influencing Infant Sleep Practices**

### **Survey data**

This section will discuss the various factors which participants reported as being influential in their parenting styles. A large subgroup of participants did not respond to the questions related to factors influencing parenting styles. Each factor (e.g. religion, advice from family, advice from friends, culture, books, and television) yielded different response rates. This may have been due to a number of reasons, such as technical errors accessing the slider style questions from smartphone devices, participants only responding to factors related to their circumstances, or participants choosing not to respond as these factors are the last set of questions on the survey. Participants could rate their response between 0 and 100 points, 0 being no contribution, 100 being extremely influential in their approaches to parenting.

Figure 1 shows that culture, books, family and professional advice were rated as being the strongest influences, while religion and the media were seen as less influential.



*Figure 1 shows the Mean scores for each option of the influential factors provided within the online survey. Items were rated out of 100 points. Error bars represent standard deviations for each item.*

Results show that participants rated culture the highest ( $M= 60.47$ ,  $SD= 27.28$ ). Overall  $N = 34$  participants provided ratings for this survey item. Culture was followed closely by advice from family, where  $N=37$  participants provided scores ( $M= 55.19$ ,  $SD=23.35$ ). Books, magazines, and online materials yielded the third highest scores ( $M=53.62$ ,  $SD= 27.01$ ) with  $N=37$  participants providing scores for this item. Professional advice closely followed with  $N=36$  participants providing ratings for this item ( $M=52.91$ ,  $SD = 28.97$ ). Religious teachings ( $M= 39.5$ ,  $SD= 32.65$ ) and Television, radio, other media ( $M=35. 1$ ,  $SD= 21.39$ ) were reported by parents to contribute the least to parenting styles.

Table 3  
*Participant ratings for factors which influence their parenting styles(scores range from 0-100 and have been broken into 4 subgroups)*

Factors	<u>0-25</u>		<u>26-50</u>		<u>51-75</u>		<u>76-100</u>	
	N	%	N	%	M	%	N	%
Culture	4	11.8	10	29.4	11	32.4	9	26.4
Religion	11	37.9	5	17.2	10	34.5	3	10.4
Books, magazines, online material	5	13.5	16	43.2	6	16.2	10	27.1
Television, radio, other media	9	31.1	13	44.8	6	20.7	1	3.4
Advice from family	4	10.8	11	29.7	16	43.2	6	16.3
Advice from friends	6	17.2	15	42.8	10	28.6	4	11.4
Advice from professionals	7	19.4	13	36.1	7	19.4	9	19.4

The distribution of scores across each item are shown in table 3, scores were broken into 4 sections including scores between 0-25, 26-50, 51-75, 76-100. The lower the rating the less influential that factor is in parenting styles. Participants rated culture, books, and professional advice as strongly influencing their parenting styles. While religion and media yielded the lowest ratings, overall, N = 11 participants

(37.9%) for religion and N= 9 participants (31.1%) for media rated their scores under 25 points. This shows that some participants felt strongly that religion and media contributed very little to their parenting style. Overall the scores vary substantially across items and highlight the diversity in participant perceptions of influential factors.

### **Interview Findings**

This section describes how Māori parents responded to questions about why they made their choices about infant sleep. Interview data is related to the factors that Māori parents reported as being influential in their decisions to use certain approaches and routines to initiate infant sleep. The themes discussed below emerged from thematic analysis of interview data exploring parent's decisions to use their infant sleep approach. Themes include; convenience,

#### **Convenience**

The overall convenience of an approach to infant sleep was reported by parents within the interview sample as being influential in their decision to use any one method of infant sleep. The majority of participants reported using parent assisted soothing techniques to get their babies to sleep, and a small few had 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 tit pretty much, I still breastfeed him every now and then now, sometimes he'll fall asleep like that if he's really exhausted (participant 05)*

Other parents reported that the convenience of not having to get up frequently throughout the night when their child wakes contributed substantially to their decisions to use a particular approach. Many parents reported having to wake frequently to resettle their baby throughout the course of the night, and being within close proximity made the process a lot easier.

*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 (participant 07)*

The convenience of their babies being settled to sleep with little/ no tears was another factor which influenced parents' decisions to use parent-assisted methods of infant sleep.

*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 (participant 06).*

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

influenced parents within this samples decisions to use self-soothing approaches.

*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 (Participant 04)*

Over all the convenience of an approach was reported by participants within this sample to heavily influence their decisions to use specific approaches to initiate infant sleep. The definition of convenience was different for each participant but overall each family did what suited their needs as parents.

#### **Influence from whanau**

Some participants spoke about how their previous experience has influenced their decisions. Previous experience includes observations they have had with nieces/nephews, watching family do it a certain way, or advice they have been offered by whanau members. Some parents had seen 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 (Participant 03).*

Parents that were using parent assisted approaches and 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 its 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 (Participant 04).*

*Mum is big on the whole self-soothing thing and I think the fact that she's got so many grandchildren now she kind of has to do that now with there being so many around (Participant 04).*

Most parents reported their families had influenced their approaches to infant sleep in positive ways. Conversely, others perceived advice from family as being more unproductive and found that the advice they often received frequently opposed their approaches to infant sleep. Participants using both parent assisted methods of infant sleep and self-soothing methods mentioned feeling unsupported by their extended families, as their experiences and approaches at times differed.

*My family was really positive, but my partner's family was the ones who felt like their opinion was needed, they thought that if they were there telling me what to do then I was just go their way and follow (Participant 01).*

*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 (Participant 01).*

*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 (Participant 06).*

### **Parents of more than one child**

Four parents that were interviewed were parents of two children. The experiences they had with their older children had influenced their current approaches to infant sleep with their second born.

*I decided with baby number two I'm not going to make the same mistakes I made with baby number one and so everything I did with her that I thought was a mistake I tried to change and alter it (Participant 01).*

Some parents had used their previous experiences to inform their current approaches to infant sleep, for example using parent assisted approaches with the first, then changing to self-soothing after the second, such as Participant 01.

### **Environmental factors influencing sleep approaches**

This theme will discuss environmental pressures which influenced parents' approaches to get their babies to sleep. These influences include the need to get back to work, attend study requirements, and to start establishing regular day care routines. Some parents felt that establishing separate sleep routines were especially important as parents returned to work or studies. The need for separate sleep and self-soothing was important before starting day-care as it allows babies to settle away from their parents.

*I'm putting him in day-care and I don't want them to have to put him into a routine and getting him to go to bed and taking naps and stuff and me not be*

*there, you know have him crying, I'd rather do it here so that he's prepared for it, he obviously won't know what's going to happen at day care but at least I know he can go to sleep if I'm not around and be alright, just mainly that (Participant 04).*

*I think it's my own insecurities... like what if he gets upset and all he wants is mum but mums not there because she's busy. Or him being super upset and no one can settle him then he has a really crap day...it's more that and because there's so many kids around, is my son going to miss out? If he falls over is someone going to be there to pick him up and see if he's ok, or even just the things like if they can't settle him will they call me? Are they going to be true to their word and call me or are they just going to let him cry and put up with that kind of thing (participant 04).*

In some families I interviewed parents were both at work, and day to day caring for their children were shared amongst both parents. The need to return to work and provide financial stability for their families was pivotal in all families we interviewed.

*I don't put her to sleep unless I'm home alone with her, about 3 times a week now when my partner is at work (Participant 09).*

The need to return to work and provide financial stability for their families was an influential factor in parents' decisions to use a particular method of self-soothing.

Housing situations shaped sleeping arrangements for four families that were

interviewed within this study. These parents were living with extended family members at the time of the interview and were sharing a room with their babies. These parents had separate sleep surfaces; however, their babies would often transition into the same sleep space later in the night.

*For so long we've always been in and out of family homes, so we had to share a room for so long with 2 kids. They were used to us having this one big sleeping arrangement, they like it! So it's like we lived marae styles for ages (Participant 05).*

There were a number of factors that contributed to these parents needing whanau support to house their families e.g. too many applicants applying for rental properties and price of rentals. Many of these families were also relying on one income to support the family, leaving families with little option but to share a room with their kids. Some parents had managed to organize rental accommodation, or a separate room for their babies by the time of the interview. However, the use of parent assisted and bed sharing practices were already heavily entrenched in daily routines, and hard to change.

*Yea well I live with my partner's family, and his sister used to sleep in that room, that babies in, but then his nan moved out and his sister is downstairs, so now we have a room for baby. So their advice was just to let her cry and see if she'll self soothe, but because I was right next to her, it just didn't work, it's so much easier if I can just feed her then put her back to sleep (Participant 07).*

Sufficient housing space is pivotal to the implementation of self-soothing methods as parents need the space to be able to implement it without disturbing other members in the household. Those that were implementing self-soothing approaches to infant sleep, were housed independently from extended family and had their babies in separate rooms and sleep spaces. Families that shared housing with extended whanau did refer to the importance of establishing separate sleep routines. These families planned to implement changes in their current routines to promote self-soothing, once they secured independent housing.

*When we get our own house were going to put them in a room together, so they can share, that's the plan, so hopefully they'll have each other's comfort (participant 06).*

### **Health care professional/ service providers and their influence on sleep**

Parents reported receiving mixed advice from healthcare professionals and service providers such as Plunket and Whanau Ora. Most parents reported being advised to implement separate sleep to promote sleep consolidation throughout the night.

*Yea they said it was good to let them cry, so just let them cry and then they'll fall asleep when they're tired, but I'm just not like that. A lot of people do that though. Just put their babies in the room (participant 06).*

Parents also reported receiving opposing advice from the same service providers where they were informed that the use of controlled crying methods could produce attachment issues with their children as they age if left to cry for too long.

*Yea hard out, even just within the midwives themselves, they would tell me different things, you know just let him cry it out, aw then no we don't do that anymore, it was just a lot of mixed messages I didn't really know what to do (participant 03).*

Receiving advice that frequently changed and often opposed advice given in prior meetings made many parents feel guilty and ashamed when consulting with healthcare professionals and service providers as they struggled to implement their recommendations.

*I've tried the cry yourself to sleep method like twice. I got told by Plunket that it's not good, again I felt really bad, it worked but I did hear from someone, that I shouldn't leave it any longer than 15 minutes (Participant 02).*

*Yea I definitely felt guilty at first, not doing what I was told to do, for the best benefits of my child, so when you start thinking about that you feel like, aw man, definitely feeling guilt (Participant 02).*

Overall, Māori parents initially sought advice from healthcare professionals, but some parents received contradictory advice, and they described how this made them less confident in their parenting, and also less reliant on professional advice. Once sleep

routines had been established with their babies, parents were less inclined to seek out advice from health care professionals and focused more on their babies cues to inform their sleep routines.

### **Safety**

This theme will discuss participant perspectives on the safety of bed sharing/co-sleeping. Some parents referred to the safety issues associated with bed sharing such as rolling on baby, blankets overhead, and over-heating. Conversely, others expressed fears of child sleeping in their separate room, due to not being able to hear them breathing if something were to happen. The main safety concerns that were raised by participants were related to bed sharing.

*Yea they think its 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 (Participant 01).*

*I'm too scared to, I move around a lot when I sleep, and I'd be too scared that I would suffocate her (Participant 09).*

Parents who were bed-sharing were aware of the safety concerns associated with bed sharing. However, participants 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 can roll into. Some parents referred to safety concerns associated to 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.

*Yeah 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 (Participant 06).*

*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 (participant 03).*

### **Culture and infant sleep**

All parents were asked how they thought their culture influenced their parenting decisions and approaches to infant sleep. Most participants did not think that their parenting styles were influenced by their culture, but rather reflective of what works best for them, and their family.

*Nah, not really, because although I'm Maori, I don't know my culture, I was never brought up with my culture, so I don't really know, I just do what I do (Participant 06).*

*Um I don't know, I think that's just a general way that she goes to sleep, I don't think it's related to my culture, I think it's just her being stubborn (Participant 07).*

Although participants were not able to directly link their approaches to their culture, participants offered some insight into how some parenting practices they employ are supportive of Māori culture.

*Um probably not a whole lot, but I would probably say like they (Māori) would approve of co-sleeping more than European people would. Because we (Māori) are like this is my baby, do what I want and this is how I was raised and I turned out fine, but I think Europeans stick to the set way of doing things, and again with the professional side, whatever's told is how it needs to be done. So that probably influenced me, I'm a very chilled out person, if I feel like I'm going to be sweet and I think that comes from my culture, the Māori side of things (participant 02)*

*I think Māori are whanau 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 (Participant 03)*

Participants associated practices such as parent-assisted approaches, co-sleeping/bed sharing, and connection with family as being reflective of Māori culture and practices. Participants also associated their personality styles e.g. chilled out, go

with the flow, relaxed, as being reflective their culture. Responsivity to baby's immediate cues such as crying were also reported by parents to be associated with their culture.

*With being Māori it's a lot more 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 bums 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 (Participant 04)*

Most participants associated family support as being reflective of their culture also. The advice and recommendations made by family members, were reported as being very influential in participants decisions around parenting.

*Being back (NZ) I've got all my sisters, mum, go to girl, and friends, it just seems more immediate support, we had support over there but it wasn't like then and there, it was like have good family friends an hour away but they weren't there. That's why we sort of moved back (participant 03)*

Overall 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 participants were able

to offer examples such as the intergenerational transition of knowledge, responsiveness, and extended whanau support.

### **The need for separate sleep**

This theme discusses participants' 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 need for separate sleep led to some parents using self-soothing methods, where parents explained it aided in developing their babies' abilities to settle themselves throughout the night.

*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 (Participant 04).*

*Yea, it's all about you having the control over them, and letting them know that they can't get away with thinking they can just cry and they'll be picked up and it will happen every time, cause it's not going to happen every time, so if they're comfortable without it happening wouldn't you rather that? (Participant 01).*

Those that used parent-assisted approaches (rocking, feeding to sleep, lying with baby until they go to sleep) to initiate infant sleep also talked about the need to establish separate sleep with their babies; however, they struggled to implement separate sleep in practice. When discussing their concerns related to continued bed sharing/co-sleeping, parents feared that their children would become dependent on bed sharing, and parent interaction when initiating sleep.

*My only downfall to co-sleeping apart from the safety, is I wouldn't want him to get used to it (Participant 02).*

*Yea I just don't want them sleeping with us forever, one of aunties slept with my nan until she was 12, and I do not want that (Participant 06).*

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.

### **Summary**

This section of the results discussed findings from both the interviews and survey data. Survey data found that culture, books, magazines, online material and advice from family was the most influential factors in parenting styles. Within the interviews parents explained that convenience of an approach, whanau influence, being a parent of more than one child, environmental factors, healthcare recommendations, safety and culture all influenced aspects of their approaches to infant sleep. The main difference between interview and survey data was that culture was seen as contributing very little by the parents that were interviewed, conversely, the survey participants rated culture as being influential in their approaches. The need for separate sleep was evident across both survey and interview findings. Within the survey data, parents' preferences and initial plans for separate sleep were substantially higher than those that planned to co-sleep or bed-share. Within the interviews there was a strong desire for all parents to promote separate sleep; however, most parents struggled to actually implement separate sleep. Overall, only around a third of interview participants

implemented these separate sleep routines on a regular basis.

## Chapter 5: Advice to New Parents

This section will discuss interview data related to what advice participants would give to new parents about infant sleep. Thematic analysis of interview data revealed three main themes including understanding each individual baby and the idea that there is not a “one size fits all” approach to getting your pepi to sleep, the importance of trusting your own instincts and your baby’s natural cues, and the importance of establishing support networks.

### **Every baby is different**

Most parents highlighted the importance of understanding your baby, and what works best for each individual whanau. Many new parents struggled initially to establish sleep routines, as most pursued and attempted to use self-soothing methods. However, few parents actually maintained these routines and accomplished separate sleep on a regular basis. Participants found that as time went on, more experience was gained, and they had established a connection with their baby. Parents felt more comfortable to do what suited their needs and focused more on their own baby’s natural cues to inform their parenting styles. This often resulted in the use of parent assisted methods e.g. rocking, lying down, or feeding to sleep.

*“I know every baby is different. My sister in law says she gets up to her baby every half an hour, every half hour through the night, and I’m just like what how do you live? So every baby is different, I don’t believe that every baby will stick to a routine, but there could be a program to help give ideas as to how Māori parents can get their babies to sleep longer” (Participant 02)*

*“A lot of people have said to me that sometimes it’s just the baby, and you’ve just kind of got to go with it. One of my partner’s family members, there’s like 8 babies within a year, and our baby is the oldest, so all his cousins had babies, we always used to talk about it, some babies sleep through the night, and some don’t, but it just depends on the baby” (Participant 07)*

Participants reported their sleep routines as being more relaxed when parents were in tune with their baby’s needs. Participants reported conversations they had with other parents, extended whanau, and friends about the differences amongst their babies.

### **Trust your instincts**

Confidence in your instincts and own abilities also came across as a consistent theme for participants, when asked what advice they might offer to others. Each baby has their own cues, temperament, and preferences; parents reported the importance of being in tune with these needs, and the benefit this has on establishing parenting and sleep routines.

*“there is no wrong or right way, it’s just how you approach it, if you want to do cry it out go hard, but if you don’t then don’t, I don’t think they emphasize that enough, just because you choose a way doesn’t mean it’s bad” (Participant 03)*

One father spoke directly to this finding, explaining that babies naturally tell you when they need something. He explains that parents simply have to be in tune with these cues

*“You’ll find your own routine and pattern for your own kids I think. A lot of people told us that kids should be awake this time, sleeping this time, eating this time, but your kid is going to let you know when they’re hungry and tired anyway, you just naturally learn and pick up on those feelings and that, because if they’re crying they’re obviously hungry, pooped or wet their pants, or they’re tired, there’s only really 3 options, so it’s not hard, and kids are always going to let you know” (Participant 08)*

Many participants’ infant sleep routines and approaches were not reflective of those that are heavily promoted which support the implementation of self-soothing methods e.g. controlled crying, or controlled comforting. Participants reported feelings of guilt and shame when they were unable to implement the dominant western ideals of infant sleep. Participants explained that there should be more support for parents doing what works for them, in a safe and comfortable way.

*“I spent a lot of time juggling between what’s right and what’s wrong in parents, it confused me and the baby, now that we’re on our own it’s like right I do it, and it works for me, and you’ll find out what works for you in the end” (Participant 05)*

The ability to trust your own instincts and baby’s natural cues to inform daily routines were reported by participants to promote acceptance and confidence in parenting styles. Participants explained that more support should be available for those using alternative approaches to infant sleep, which support and respect the diversity of

each whanau and baby.

**Support is a must**

Support networks and participant emphasis on the importance of establishing and maintaining good supports was an emerging theme from the interview findings. Most participants spoke to the importance of their support networks which surrounded them and the impact these relationships had on their parenting styles. When asked what advice they might offer to new parents, participants explained that support is a must, whether that be hands on support, or just someone to talk to. Verbal reassurance and support that parents are doing a good job was reported to be important, as this aided in increasing parent's confidence levels when with their babies.

*“I'd probably say have a go to person, I think that's what I told my friend, just have that one person that you feel comfortable enough to reach out to, get the advice and reach out and I know you don't always want to, I just sort of bottled it up, and I felt so lonely, I think by reaching out it's nice to let someone hear your crap but also to hear what they have to say. And just for someone to listen”*

*(Participant 03)*

Some participants made reference to the importance of establishing more Māori parenting groups, where parents can discuss their concerns around infant sleep, with other like-minded parents, from the same cultural background, and understanding as them.

*“I guess for people that don't have the support that I have, maybe groups that offer advice that doesn't make the people feel like they're useless, like if I was struggling with him and I didn't have the support I have I'd want something*

*that felt close to home rather than me walking into a room full of people that don't know what I want or don't get, and judge me you know? Somewhere they can feel comfortable" (Participant 03)*

Overall participants recommended that parents establish and maintain strong support networks as they provide not only physical support when parents need a break, but also psychological support. Community based initiatives focused on Māori perspectives of infant sleep were also reported as being an area which needs further developing for Māori whanau.

### **Summary**

The third section of the results outlines advice that parents from the interview sample would offer to new parents in regards to infant sleep. Parents explained that every baby is different and parents should see what works best for each baby and their whanau as opposed to trying to fit into a preset idea of how infant sleep should be. Parents explained how important it is for new parents to trust their instincts and read their baby's cues to inform the best approach to infant sleep for them. Parents also highlighted the importance of maintaining strong support networks for physical support when parents need a break but also just to have someone to talk to.

## **Chapter 6: Discussion**

The objective of this study was firstly to investigate what infant sleep practices Māori parents that participated within this study are implementing with their pepi (2 months- 2 years of age). Secondly, this study aimed to explore where parents receive/seek advice from e.g. Plunket, antenatal groups, health professionals, whanau or friends. Few studies have been completed to date which specifically explore infant sleep techniques amongst Māori whanau, which further fuels support for research exploring soothing styles, sleep locations, and feeding patterns throughout the night. This section will discuss the findings from this study in relation to the relevant literature used to inform this study. Sleep locations and soothing styles will be discussed followed by influences on parenting styles and reference will be made to the differences and similarities within the current literature available. Recommendations, limitations and the implications of this study will then be discussed which are informed by the findings from this research.

### **Sleep Location and Soothing Styles**

Interviews and survey data found that parent assisted approaches to infant sleep (being held and breastfed to sleep, being rocked and held to sleep, or lying with their baby until they go to sleep) were the most used. Those that used parent-assisted approaches were also more likely to co-sleep or bed share later within the night. Co-sleeping or bed sharing was often seen as an extension of parent-assisted approaches, where parents would often relocate baby during the night. Survey findings show that close to half of participants planned and preferred to sleep their babies in a separate

room; however, in practice these numbers decreased. Few parents had planned or preferred to sleep with their babies, but in practice these figures increased substantially. Interview findings followed similar trends in that most parents wanted separate sleep but very few had been able to follow through with establishing self-soothing routines. Close to a third of participants within the interview and survey sample used self-soothing approaches to initiate infant sleep. Behavioral sleep training methods were described as being effective at establishing a self-soothing routine. Parents that used self-soothing approaches were more focused on having a consistent routine and overall achieved longer periods of sleep consolidation with their babies. These findings offer some insight into parents' initial stances on infant sleep, their aspirations for their babies sleep, and how these have varied over time.

The findings from this study are consistent with previous research exploring infant sleep in New Zealand (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001) in that Māori parents are more likely to use parent-assisted soothing styles and still frequently co-sleep and bed-share in comparison to non-Māori (Ball & Volpe, 2013; Tipene-Leach, et al., 2010). Mindell, Sadeh, Kohyama and How (2010) have researched how parental behaviors can influence sleep outcomes in infants and children in multiple countries, including New Zealand. The use of parent-assisted soothing techniques and co-sleeping was found to be associated with dependency on parent interaction when getting baby to sleep as they develop. This research also concluded that parents who co-sleep have poorer sleep overall, including waking more frequently and going to bed later (Mindell, Sadeh, Kohyama and How (2010)). The findings from this current research differ from that of Mindell & colleagues (2010) as the use of parent-assisted approaches was found to be practiced more frequently than self-

soothing methods. Participants that used parent-assisted approaches to infant sleep also explained that both baby and parent experienced more consolidated sleep while bed-sharing as they did not have to wake frequently to re-settle their babies. Overall, this study found that participants using parent-assisted approaches to infant sleep felt their babies slept for longer with less time spent awake.

Participants that used parent-assisted techniques perceived their approach to be convenient, effective, and promoted ease of feeding. Commons & Miller (2010) argue that infants who co-sleep and breastfeed experience more time in lighter sleep states due to frequency of feeding; however, the overall time spent awake is reduced for co-sleeping parent and infants. In regards to sleep consolidation, parents that 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).

### **Influences on Parenting and Infant Sleep Styles**

Survey findings show that culture, books, whanau, and professional advice were seen as being the most influential factors in parenting styles. Religion and media yielded the least support; however, religious teachings figures show that some parents felt strongly that it contributes nothing to their parenting styles, while others felt it did influence their parenting styles. The interview data expanded on the quantitative survey data and offered more in-depth accounts of influential factors in parenting such as convenience, whanau, previous experience, environmental factors, professional advice, culture, and demand for separate sleep. The overall convenience of an approach to infant sleep was reported by parents to heavily influence approaches to infant sleep. Those that used parent-assisted techniques to infant sleep said they could feed and

soothe their babies throughout the night more easily if their babies were sleeping within close proximity, while those that used self-soothing techniques reported the convenience of simply placing their baby down to soothe themselves as being very influential.

Little research has been completed to date on the convenience and perceived efficacy of parent-assisted approaches in the initiation and duration of infant sleep. The current research available on styles similar to those found within this study are reflective of attachment styles of parenting. Attachment parenting promotes parents to respond to infant cues and signals as opposed to focusing on their own needs (Commons, Miller, & Lamport, 2010; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). Research has found that certain parenting styles including the use of parent-assisted soothing styles (rocking, feeding, lying with baby until they go to sleep), responsivity, bed-sharing, and co-sleeping have been shown to foster secure attachment which forms the basis for social and emotional development (Commons, Miller, & Lamport, 2010; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). Although many parents within this study were using approaches similar to that of attachment parenting styles, none of them used this term within interviews. Attachment parenting is not as readily promoted as an ideal approach for infant sleep in western cultures in comparison to separate sleep, which may be why parents that participated within this study were unaware of the similarities and the benefits of these approaches.

Sadeh & colleagues (2010) found that the environmental pressures on parents to provide financial stability for their families has had a major impact on the need for separate sleep. The industrialized work schedule requires parents to get a good night's sleep and be at work the next day. Separate sleep routines are said to promote longer

periods of sleep consolidation, which is important for parents who have work requirements (Sadeh, Tikotzky, & Scher, 2010; Worthman, 2011). Participants within this study also made reference to these environmental pressures as being influential in their decisions around infant sleep and soothing. As parents returned to work and babies were placed into day-care, the need for their babies to sleep was pivotal.

Participants within this study expressed their hesitation about the continued use of parent-assisted approaches as they feared their babies might develop dependency on parent interaction as they get older. These findings show that participants using parent-assisted approaches perceive their approach to infant sleep as leading to negative effects on their independence and autonomy as their children age. It appears that western perspectives of infant sleep are readily accepted as being the ideal approach to infant sleep by Māori parents within this study; however, in practice, various factors affect parent's abilities to implement self-soothing styles. Longitudinal evidence has found that bed-sharing in the early years of life has no association with adverse negative outcomes as an adult (Klarckenburg, 1982; Jenni & O'Connor, 2005). Research has also shown that the use of parent-assisted approaches, bed sharing, and co-sleeping are associated with the development of independence (Mindell, Sadeh, Kohyama, & How, 2010; Sadeh, Tikotzky, & Scher, 2010), although western culture still promotes the assumption that it produces clingy children.

Whanau support was reported as being extremely important for participants within this study; however, when advice and recommendations from whanau oppose parent aspirations for infant sleep, some Māori parents may choose to disengage from services. Different opinions within the whanau about infant sleep sometimes created conflict between family members at times. For example, if the parent wants to rock

baby to sleep but grandparents do not approve of parent-assisted soothing due to continued dependence on parent interaction. Perceptions of health care professionals also followed similar trends in that parents perceived their advice to be extremely important but many parents received conflicting advice between visits and often felt judged when they were unable to implement their recommendations. Tipene-Leach & colleagues (2010) found that Māori parents are less likely to attend infant sleep education programs, engage with Plunket, and attend antenatal classes, in comparison to non-Māori (Tipene-Leach, et al., 2010), which supports the findings from this study that some parents often felt judged by health care professionals.

The majority of interview participants were aware of the risk factors associated with bed-sharing but still preferred to bed-share. These findings highlight the importance of acknowledging cultural variations in infant sleep approaches amongst health-care professionals. The continued categorical condemnation of bed-sharing, without providing safe and culturally consistent alternatives, will likely result in more Māori parents feeling judged and guilty about their approaches to infant sleep as opposed to providing services inclusive of cultural differences.

### **Cultural Differences**

Culture shapes social reality and influences how we learn and behave (Jenni & O'Connor, 2005; Owens, 2005). The intergenerational transmission of knowledge which occurs over the life span through socialization and acculturation vary substantially between Māori and dominant western culture (Koea, 2008; Matu, 2015). Traditional Māori perspectives on infant sleep are collective and holistic in nature and promote responsivity to infant distress through the use of co-sleeping and parent-assisted techniques such as rocking, feeding or lying with your baby to soothe them to

sleep (Jenkins, Harte, & Ririki., 2011; Ritchie & Ritchie, 1997). Conversely, dominant western culture places strong emphasis on the development of independence at an individual level which begins early in life through the development of separate sleep and soothing strategies (Blunden, Thompson, & Dawson, 2011). Participants within this study who used parent-assisted approaches to infant sleep and bed-shared with their babies found these approaches to be easy and convenient.

These findings suggest that recommendations for separate sleep do not fit well with the needs of all Māori participants. Literature which explores traditional Māori approaches to infant sleep have shown that Māori parents were traditionally very responsive to infant crying and promoted the use of parent-assisted techniques to initiate infant sleep which are based on infant cues (Ritchie & Ritchie, 1997; Jenkins, Harte, & Ririki., 2011). The desire for parents within 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). Many Participants within the interview group did not recognize or conceptualize their approaches to infant sleep as culturally influenced, they just did it, which reflects the difficulties for a lot of people in reflecting on one's own cultural background.

From the interview and survey findings it is clear to see that there is no one way to initiate infant sleep. There are benefits for both separate sleep and co-sleeping; However, within the mainstream western health care system the only method which is strongly promoted is separate sleep (Mindell, Sadeh, Kohyama, & How, 2010). Some parents within 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. Advice offered by

interview participants to new parents also supports the idea that infant sleep should be based on each individual whanau as opposed to recommendations that are consistently the same for all. The findings from this research has informed recommendations which promote the importance of cultural competency and the inclusion of culturally informed infant sleep recommendations when working with Māori parents.

### **Recommendations**

#### **Promotion of the benefits of co-sleeping and bed-sharing:**

Recommendations made by health care professionals should incorporate research exploring the positives associated with co-sleeping and bed-sharing such as promotion of breastfeeding, regulation on breathing patterns and increased contact with parents (McKenna J. , 1990; Mckenna & McDade, 2005; McKenna, Middlemiss, & Tarsha, 2016; Hauck, Thompson, Tanabe, Moon, & Vennemann, 2011). When co sleeping and bed-sharing are done free from other risk factors, they serve as a protective factor for SIDS. Perhaps if these benefits were more heavily promoted, Māori parents would feel more comfortable and confident in their choices to co-sleep or bed-share, and would have clearer information on safe options for these.

**Promotion of infant sleep as a product of culture:** Infant sleep is often overlooked as being a product of culture. This finding was extremely evident within the interview results from this study as most parents did not perceive their approaches to be culturally informed. However, the approaches Māori parents used (parent-assisted approaches, co-sleeping, bed-sharing) are consistent with traditional Māori perspectives on infant sleep. Popular opinion regarding infant sleep often overlooks the biological and environmental processes which influence sleep patterns (Anders, 1994;

Jenni & O'Connor, 2005). Biological functions behind sleep regulation aid in the restoration of brain functioning, emotion regulation, and memory consolidation. The duration of sleep needed varies from person to person and matures over the course of early infancy (Anders, 1994; Jenni & O'Connor, 2005). Environmental processes such as work schedules, socio-economic status, and housing also effect sleep ecology and development (Anders, 1994; Jenni & O'Connor, 2005).

Cultural learning and the intergenerational transmission of knowledge underlie the processes which influence sleep; this continues to be over-looked in regards to infant sleep in western cultures. Although the biological makeup, environmental pressures, and cultural exposure of each whanau varies substantially across the Māori population, recommendations made by health care professionals continue to perpetuate separate sleep being the gold standard for all parents. Perhaps if recommendations and common perceptions regarding infant sleep were framed as being culturally bound, more parents would be proud to implement these strategies as opposed to feeling like they are producing clingy children because they have not established a separate sleep routine.

**Cultural competency:** The results from this study have shown that Māori parents vary substantially in their approaches to initiating infant sleep i.e. parent-assisted or self-soothing. The variations in infant sleep practices such as those found within this study further highlight the need for cultural competency amongst health care professionals. As health care professionals are interacting with new parents on a regular basis it is pivotal for them to understand and acknowledge individual biological processes and the basic dimensions of cultural differences for each whanau and baby (Jenni & O'Connor, 2005), especially when working with disadvantaged minority

groups. Perhaps if these health care providers could incorporate more Māori based and culturally informed approaches to not only assessment but also their recommendations, attendance rates in services such as antenatal classes would increase (Tipene-Leach, et al., 2014; Tipene-Leach, et al., 2010)

**Incorporation of whanau in healthcare appointments:** Results from the survey data have shown that participants prefer to receive advice in person, from people they know and trust. Participants within this sample also reported the benefits of doing their own research in books, magazines or online sources, as opposed to other media sources. The interview findings found that whanau were seen as being extremely influential in parenting styles and decisions. The incorporation of whanau within discussions around infant sleep with healthcare providers may prove as a means of increasing support and acceptance of these services.

The harakeke analogy (Tibble & Ussher, 2012) refers to the importance of whanau support in the overall well-being of Māori as individuals. This analogy may serve as a format for understanding the processes of Māori parenting and child rearing and the importance of incorporating these values into services that are accessible to Māori. The incorporation of wider whanau such as grandparents, siblings, or friends when discussing infant sleep problems and recommendations may lead to fewer Māori parents having negative perceptions of health care professionals. The incorporation of whanau in these processes will also promote a shared understanding across the whanau unit which is important for those parents that did not feel supported by their extended whanau.

**Promotion of consistent definitions for co-sleeping and Bed-sharing:** Co sleeping and bed sharing are often used interchangeably when referring to sleeping

with your baby; however, in reality there is a lot of variation in co-sleeping and bed sharing. The result of these terms being misused is that all forms of co-sleeping and bed sharing are perceived to be associated with SIDS. Mckenna and McDade (2005) argue that safe forms of co-sleeping and bed sharing actually have positive benefits. The benefits of co-sleeping and bed sharing were not mentioned within any interviews in this study. This finding likely reflects the lack of readily available information there is for parents on the benefits of co-sleeping and bed sharing, such as promotion of breastfeeding and the development of independence and autonomy as infants develop. Terminology used correctly would likely reduce the misuse of these terms and their perceived link with SIDS, but also promote the benefits of traditional Māori practices.

### **Implications of the Current Study**

There is little research previously which explores infant sleep practices for Māori parents as well as the various factors that influence parenting styles, and therefore little comparative literature on the topic. This research has contributed to the pool of academic literature related to Māori approaches to infant sleep. This study has identified that although recommendations are made for separate sleep, many Māori parents prefer to sleep with their babies. There is growing research which supports bed-sharing and co-sleeping as being beneficial for both parent and baby. Public information campaigns that disseminate information on these benefits as well as the well-known risk factors for SIDS is likely to be more effective amongst Māori populations which have previously felt judged for failure to implement separate sleep recommendations. This study has shown that Māori parents are diverse in not only their approach to infant sleep but also in their environments, lifestyles, and cultural

awareness, which have rarely been researched to date. The implications of these findings are that current approaches to infant sleep within western culture likely need to change in order to be accepted by Māori parents.

### **Limitations**

As many participants chose not to respond to questions related to factors influencing parenting styles within the survey, the findings from these questions must be interpreted with caution. There could have been a number of reasons as to why people choose not to respond to these questions, such as fatigue (as these questions were at the end of the survey), the question format, or parents may not have understood the relevance of these questions to the topic of infant sleep.

As Facebook proved to be the most effective source of recruitment, it is likely that a large subset of Māori that do not use Facebook or social media sites may have been missed. The inclusion of Māori centered methodologies could have been emphasized more within this study as it likely would have produced better response rates. The inclusion of iwi, local marae, and hapu might have yielded different findings as those whanau may have been more culturally engaged than the sample used within this study.

### **Future Focus**

The higher ratings related to the influence of online materials may be due to the increased use of social media, as parents are now able to receive parenting advice and experiences from a variety of different parenting perspectives and pages. This is an area for further exploration amongst Māori populations, the development of more online forums, pages, and community group programs. Another area for future research could be around the development of culturally based education programs which inform parents/ whanau/health care professionals about sleep ecology, cultural

variations and the down-falls in a one size fits all approach to infant sleep.

Research exploring safe sleep materials would also be beneficial to explore as very few parents within the survey data and no parents within the interview data were using wahakura; there is a definite need to promote and provide safe sleeping materials for Māori parents (Tipene-Leach et.al, 2014). This study has found that many whanau are co-sleeping and bed-sharing. Research exploring 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 strength based perspective as opposed to deficit focus. If we continue to produce academic literature related to the negatives of parent-assisted approaches, it is highly likely that the current issues Māori whanau face in regards to infant sleep will only further perpetuate the lack of engagement in infant related services.

## **Conclusion**

Overall, the findings from this study suggest that Māori parents vary substantially in not only their approaches to infant sleep but also in their reasoning behind their chosen approach. Although many Māori parents within the interview and survey were practicing infant sleep techniques in line with traditional Māori approaches, very few made this connection. These findings highlight the lack of cultural inclusion evident within New Zealand's current approaches and perceptions toward infant sleep. These findings also stress the need for change as the current approaches have failed to meet the needs of all Māori whanau. The perpetuation of the current approaches to infant sleep within New Zealand will likely lead to continued disengagement and judgement placed on those that choose not to follow the norm. This

research has highlighted the importance of acknowledging alternatives to infant sleep, the importance of whanau inclusion, and the importance of recognizing difference amongst Māori and non-Māori alike.

## 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.
- Ainsworth, M., & Bowlby, J. (1991). An ethological approach to personality development. *American Psychologist*, 46(4), 331-341.
- Anders, T. (1994). Infant Sleep, Nighttime Relationships, and Attachment. *Psychiatry* , 57(1), 11-21.
- Baby Sleep Consultant New Zealand . (2015). Retrieved from Baby Sleep Consultant New Zealand : <http://babysleepconsultant.co.nz/about-us/blog/>
- Baby Sleep Consultant New Zealand . (2015). Retrieved from Baby Sleep Consultant New Zealand : <http://babysleepconsultant.co.nz>
- 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.
- Bishop, R. (1999). Kaupapa Maori Research: An Indigenous Approach to Creating Knowledge. *Maori and psychology : research and practice - The proceedings of a symposium*.
- Bishop, R. (2005). A Kaupapa Māori approach The handbook of qualitative research . In N. Denzin, & Y. Lincoln, *The handbook of qualitative research* (Vol. 3). London: Sage Publishers.
- 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.
- Bretherton, M. (2010). The Origins of Attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology* , 8(5), 759-775.
- Commons, M., Miller, P., & Lamport, M. (2010). The benefits of attachment parenting for infants and children: A behavioural developmental view . *Behavioural development bulletin* , 16(1), 1-14.
- Courage, M., Howe, M., & Eisenberg, N. (2002). From infant to child: the dynamics of cognitive change in the second change of life . *Psychological bulletin* , 128(2), 250-277.
- 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. *Journals of abnormal psychology*, 93(4), 378-390.
- Dahlberg, L., & McCaig, C. (2010). *Practical Research and Evaluation: A Start-to-Finish Guide for Practitioners*.
- Durie, M. (1998). *Te Mana, Te Kawanatanga The Politics of Maori Self-determination*.
- Eketone, A. (2009). Theoretical underpinnings of Kaupapa Māori directed practice. *MAIreview*, 1, 1-11.
- 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.

- Herbet, A. (2001). WHANAU WHAKAPAKARI: A MAORI-CENTRED APPROACH TO CHILD REARING AND PARENT-TRAINING PROGRAMMES . *PHD Thesis* .
- 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, N.Z.: Te Kahui Mana Ririki.
- Jenni, O., & O'Connor, B. (2005). Children's Sleep: An Interplay Between Culture and Biology. *Pediatrics* , *115*(1), 204-16.
- Jones, B., Ingham, T., Davies, C., & Cram, F. (2010). Whānau Tuatahi: Māori community partnership research using a Kaupapa Māori methodology. *MAI Review, 3*, 1-14.
- Keller, M., & Goldberg, W. (2004). Co-Sleeping: Help or Hindrance for Young Children's Independence? *Infant and child development* , *13*(5), 369-388.
- Kid Spot. (2016). *Baby Zone: Training your baby to sleep* . Retrieved from Kidspot: <http://www.kidspot.co.nz/article+2701+194+Training-your-baby-to-sleep.htm>
- Klarckenburg. (1982). SLEEP BEHAVIOUR STUDIED LONGITUDINALLY. *Acta Paediatrica, 71*(3), 501-506.
- Koea, J. (2008). Indigenous Trauma: A New Zealand perspective . *Care injured*, 11-18.
- Le Grice, J., & Braun, V. (2016). Mātauranga Māori and Reproduction: Inscribing connections between the natural environment, kin and the body. *AlterNative:*

- An International Journal of Indigenous Peoples*, 12(2), 151-164.
- Mane, J. (2009). Kaupapa Māori: A community approach . *MAIreview*, 3(1), 1-9.
- Mane, j. (2009). Kaupapa Maori: A community approach . *MAIReview*, 3(1), 1-14.
- Matu, M. (2015). Maori Issues. *Contemporary Pacific*, 27(1), 273-281.
- McKenna, J. (1990). Evolution and Sudden Infant death syndrome (SIDS) Part.  
*Human Nature* , 1(2), 144-147.
- McKenna, J. (1996). Sudden infant death syndrome in cross-cultural perspective: Is Infant-Parent Cosleeping Protective? *Annual Review of Anthropology*, 25(1), 201-216.
- 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.
- McKenna, J., Mosko, S., Dungy, C., & Mcaninch, J. (1990). ARTICLEmultiple sources exist. see all Sleep and arousal patterns of co-sleeping human mother/infant pairs: A preliminary physiological study with implications for the study of sudden infant death syndrome (SIDS. *American Journal of Physical Anthropology*, 83(3), 341-347.
- 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: A cross cultural comparison. *Sleep medicine, 11*(4), 393-399.
- 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 Peadiatrics and Child health* , 28(1), 53-58.
- 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* .
- Ritchie, J., & Ritchie, J. (1997). *Growing up in New Zealand*, 1-150.
- 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>
- Smith, L. (1999). *Decolonizing Methodologies Research and Indigenous peoples*.  
Univeristy of Otago Press.
- Tibble, A., & Ussher, S. (2012). *Kei te pehwea to whanau? Exploring whanau using  
maori social survey*. Statistics New Zeland . Statistics New Zeland .
- 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, November). SIDS- related knowledge and infant care  
practices among Maori mothers. *The New Zealand Medical Journal* ,  
*123*(1326), 88-96.
- Winstanley, A., & Gattis, M. (2013, September). The Baby Care Questionnaire: A  
measure of parenting principles and practices during infancy . *Infant and  
behavior development* , *36*(4), 762-775.
- Worthman, C. (2011). Developmental cultural ecology of sleep. *Sleep and  
Development: Familial and Socio-Cultural considerations*, 167-180.

## **Appendices**

### **Appendix A: Waikato university ethics approval**

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THE UNIVERSITY OF  
**WAIKATO**  
*Te Whare Wānanga o Waikato*

18 June 2015

Carrie Barber and Horiana Jones  
School of Psychology  
University of Waikato  
PO Box 3105  
Hamilton 3240

Dear Carrie and Horiana

**Ethics Approval Application – # 15:42**  
**Title: Rockabye Baby: Infant care and parenting around sleep**

Thank you for your ethics application submitted for approval which has been fully considered and approved by the Psychology Research and Ethics Committee.

Please note that approval is for three years.

If any modifications are required to your application, e.g., nature, content, location, procedures or personnel these will need to be submitted to the Convenor of the Committee.

I wish you success with your research.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'J McEwan', written over a horizontal line.

Dr James McEwan  
Convenor  
Psychology Research and Ethics Committee  
School of Psychology  
University of Waikato

## **Appendix B: Interview schedule**

## Infant sleep practices - Interview Schedule

### Interview Intro

Introduce:

- The interviewer
- Research aim/objectives
- Objective 1: To understand what you do to get your baby to sleep.
- Objective 2: to explore where you get advice from about your babies sleep

Explain:

- Privacy/data will be anonymized
  - But despite this participant might be identifiable through their views
- I will provide a full transcription of the interview via email within 2 weeks from interview. Can you please provide feedback within 14 days from us having sent the summary to you?
  - Important - I will **advise the participant of the date they must submit feedback by**
- Interview will take about an hour

Permission

- Provide them with info sheet
- Gain consent to audio record interview/or to take notes if participant doesn't want to be recorded
- Go over consent form and have participant sign it

- Get their contact details

Ice breakers

- **Name?**
- How **old** is baby?
- **Siblings?**

I would like to start by hearing about your baby and his/her sleep - how sleep time usually goes down in your house.

### **Baby and their sleeping habits**

- **How** do you get baby to sleep?
- **Who** puts baba to sleep?
- **where** does baby sleep?
- **When** do you put baby to sleep?
- **How does bedtime** usually go?

Expand further into why its difficult/easy

Now we are going to talk about your particular method of putting baby to sleep and how you decided on doing it that way.

### **Advice and information about infant sleep**

- How did you **decide** to put your baby to sleep the way you do?
- Have you ever **sought out advice** on babies sleep? Useful?
- Did you receive much advice from **Plunket**? Useful?
- Did you attend **antenatal classes**? Useful?
- Does your **whanau** have much influence on the methods you use to get baby to sleep? Useful?
- Have you received advice from **anywhere else**? Useful?
- Have you tried any **other approaches** for getting baby to sleep?
- How much does your **Māori culture influence** what you do with baby?
- Have you attended or heard of **any Māori services** for parents needing advice on their babies sleep?
- What other services do you think **Māori parents would benefit from**?
- **What would you tell other mothers** just starting out to do with their new babies to get them to sleep?

#### **Wind down and end interview**

- Thank participant for their participation.
- Ask if they have any questions
- Turn off recorder
- Remind them that I will send a full transcript of the interview by <insert date> and that once sent they have 14 days to provide feedback or else it will be considered they've consented to its use for the final report.

- Ask if they would like to receive a summary of the final report. Let them know how we will send it (email) and when they should expect it by early 2017.

## **Appendix C: Print Version of online survey**

## Word Version sleep survey 2015

[This Word version, downloaded from Qualtrics, is formatted somewhat differently than the online survey; the online survey will not have question numbers, but will have a progress bar. It will not have the code numbers after each response, and some items (e.g., #2.4 below) have a slider which the participant can use to rate the response, but these show up as a line below. The participant will come to this survey after viewing the information sheet and clicking on a link to the survey]

Q1.1 This survey includes questions about your experiences, ideas and thoughts and feelings about taking care of your baby, as well as a few background questions about you and your family. To answer the questions, please think about one particular child (if you care for more than one under age two) and answer the questions with reference to that child.

Q1.2 What country do you currently live in?

- Australia (1)
- New Zealand (2)
- USA (3)
- others... (4)

Q1.3 What is your gender?

Q1.4 What is your current relationship status?

- single, never married (1)
- married (2)
- defacto/common law/living with partner (3)
- separated (4)
- divorced (5)
- widowed (6)

Q1.5 How old are you?

Q1.6 How do you describe your ethnicity? (please choose all that apply)

- Maori (1)
- New Zealand European/Pakeha (2)
- Pacific Peoples (3)
- Asian (4)
- Other European (please describe) (5) \_\_\_\_\_
- Other (please describe) (6) \_\_\_\_\_

Q1.7 What is the highest level of education you have completed?

- no formal educational qualifications or diplomas (1)
- Completed a high school/secondary diploma (please indicate type of diploma or level completed) (2) \_\_\_\_\_
- Completed some tertiary/university/undergraduate classes, but no formal degree (3)
- Completed a tertiary/university/undergraduate degree (please specify) (4)  
\_\_\_\_\_
- Completed a tertiary/university graduate-level degree (please specify) (5)  
\_\_\_\_\_

Q1.8 Are you currently working outside the home?

- no, at home caring for my child (1)
- no,unemployed and looking for work (2)
- Part time student (3)
- Full time student (4)
- Part time work (5)
- Full time work (6)
- Other (please specify) (7) \_\_\_\_\_

Q1.9 Now, please think of one child for whom you are a primary caregiver overnight. How old is the child in months?

Q1.10 Child's gender?

- Male (1)
- Female (2)

Q1.11 What is your relation to the child?

- mother (1)
- father (2)
- mother's partner (3)
- grandmother (4)
- Grandfather (6)
- other (please specify) (5) \_\_\_\_\_

Q1.12 Is the child about whom you have been answering this questionnaire...

- the only child at home (1)
- twins or multiple births, no other children at home (2)
- the second child at home (4)
- the third child at home (5)
- the fourth or more child at home (6)

Q2.1 Where had you planned to have your child sleep at night (after 9 or 10 pm) ?

- In his/her own room alone (1)
- In my bed (2)
- in my bed in a portable sleeper/basket/pepi-pod (3)
- In a bedroom shared with a sibling (4)
- In a cot or bassinette next to my bed (5)
- In a cot or bassinette across the room from my bed (6)
- In a couch or chair in an adult's arms (7)
- Other (please describe) (8) \_\_\_\_\_

Q2.2 Preferably, where would you like your child to sleep at night (after 9 or 10 pm)?

- In his/her own room alone (1)
- In my bed (2)
- in my bed in a portable sleeper/basket/pepi-pod (3)
- In a bedroom shared with a sibling (4)
- In a cot or bassinette next to my bed (5)
- In a cot or bassinette across the room from my bed (6)
- In a couch or chair in an adult's arms (7)
- Other (please describe) (8) \_\_\_\_\_

Q2.3 Most nights (after 9 or 10 pm), where does your child sleep ?

- In his/her own room alone (1)
- In my bed (2)
- in my bed in a portable sleeper/basket/pepi-pod (3)
- In a bedroom shared with a sibling (4)
- In a cot or bassinette next to my bed (5)
- In a cot or bassinette across the room from my bed (6)
- In a couch or chair in an adult's arms (7)
- Other (please describe) (8) \_\_\_\_\_

Q2.4 How much is where your child sleeps a problem for you?

\_\_\_\_\_ (1)

Q2.5 Overall, to what extent do you feel supported by others (friends, family, health professionals) about your child's sleep location?

\_\_\_\_\_ (1)

Q2.6 Overall, to what extent do you feel criticised by others (friends, family, health professionals) about your child's sleep location?

\_\_\_\_\_ (1)

Q2.7 Apart from where your baby actually sleeps, how comfortable are you with the idea of sharing your bed with your baby?

\_\_\_\_\_ (1)

Q2.8 Baby's Bedtime: Please base your answers to the following questions on your experience in the last week.

Q2.9 How does your baby usually fall asleep at night (after 9 or 10 pm)? (please choose all that apply)

- While being held and fed (at breast or with bottle) (1)
- While being rocked or held until falling asleep (2)
- After being put down in the crib, cradle, or bassinette while awake (3)
- Other (please describe): (4) \_\_\_\_\_

Q2.10 How comfortable do you feel with this nighttime routine?

\_\_\_\_\_ (1)

Q2.11 How often does your routine differ from what you would consider to be your usual routine?

- more than 3 nights per week (1)
- 2-3 nights per week (2)
- about one night per week (3)
- once or twice a month (4)
- never (6)

Q2.12 How do you feel about changes to your baby's usual bedtime routine?

\_\_\_\_\_ (1)

Q2.13 Does your baby usually cry or fuss at bedtime?

- Yes (1)
- No (2)

If Yes Is Selected, Then Skip To Overall, how much of a problem ...

Q2.14 How long does your baby cry or fuss at bedtime?

- Less than one minute (1)
- Less than 5 minutes (2)
- 5-15 minutes (3)
- 16-30 minutes (4)
- 31-60 minutes (5)
- More than 60 minutes (6)

Q2.15 Overall, how much of a problem is it for you to put your baby to sleep at night (after 9 or 10 pm)?

\_\_\_\_\_ (1)

Q2.16 In a typical night, how many times do you wake up to attend to your baby during the night?

- none or rarely, less than once a night (1)
- once a night (2)
- two or three times a night (3)
- four or five times a night (4)
- six or more times a night (5)

Q2.17 When your baby wakes up at night, how long is your baby usually awake?

- not applicable (my baby doesn't usually wake at night) (1)
- Less than one minute (2)
- Less than 5 minutes (3)
- 5-15 minutes (4)
- 16-30 minutes (5)
- 31-60 minutes (6)
- More than 60 minutes (7)

Q2.18 When your baby wakes and fusses or cries at night, do you (or someone else) usually...

- attend to him or her immediately (2)
- Wait a few minutes to see if s/he settles, and if not, attend to him/her (how long do you usually wait?) (8) \_\_\_\_\_
- Let him or her fuss or cry until falling back to sleep (7)
- Other (please explain) (10) \_\_\_\_\_

Q3.1 There are many different recommendations about sleep routines. We will describe and ask about four types. You will also have a chance to describe any other routine you might have tried.

[these questions have a branch logic so that they are only asked the follow-up questions if they have used the method]

Q4.1 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. Have you ever used sleep training/controlled crying?

- Yes (4)
- No, considered but didn't try it (5)
- No, would never consider it (6)

Q5.1 How long did you use this method?

- One night (1)
- Two or three nights (2)
- Four or more nights (3)

Q5.2 How effective was it in helping the baby to sleep?

\_\_\_\_\_ (1)

Q5.3 How comfortable were you using this method?

\_\_\_\_\_ (1)

Q5.4 Did you try this method more than one time--that is, did you stop using it for a while, then start again?

- no, just one episode of using it (1)
- yes, two episodes of using it (2)
- yes, three or more episodes of using it (3)

Q5.5 Please describe one time you used this approach--what did you do, how was it

for you and the baby?

Q6.1 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. Have you ever used Controlled Comforting?

- Yes (4)
- No, considered but didn't use (5)
- No, would never consider it (6)

Q7.1 How long did you use this method?

- One night (1)
- Two or three nights (2)
- Four or more nights (3)

Q7.2 How effective was it in helping the baby to sleep?

\_\_\_\_\_ (1)

Q7.3 How comfortable were you using this method?

\_\_\_\_\_ (1)

Q7.4 Did you try this method more than one time--that is, did you stop using it for a while, then start again?

- no, just one episode of using it (1)
- yes, two episodes of using it (2)
- yes, three or more episodes of using it (3)

Q7.5 Please describe one time you used this approach--what did you do, how was it for you and the baby?

Q8.1 Feeding/holding is where you feed or hold baby until they have fallen asleep and then put down in crib or bassinette. Have you ever used Feeding/Holding to sleep?

- Yes (4)
- No, considered but didn't use (5)
- No, would never consider it (6)

Q9.1 How long did you use this method?

- One night (1)
- Two or three nights (2)
- Four or more nights (3)

Q9.2 How effective was it in helping the baby to sleep?

\_\_\_\_\_ (1)

Q9.3 How comfortable were you using this method?

\_\_\_\_\_ (1)

Q9.4 Did you try this method more than one time--that is, did you stop using it for a while, then start again?

- no, just one episode of using it (1)
- yes, two episodes of using it (2)
- yes, three or more episodes of using it (3)

Q9.5 Please describe one time you used this approach--what did you do, how was it for you and the baby?

Q10.1 Lying down/cosleeping is where you lie down with the baby until the baby falls asleep Have you ever used cosleeping or lying down with the baby?

- Yes (4)
- No, considered but didn't use (5)
- No, would never consider it (6)

Q11.1 How long did you use this method?

- One night (1)
- Two or three nights (2)
- Four or more nights (3)

Q11.2 How effective was it in helping the baby to sleep?

\_\_\_\_\_ (1)

Q11.3 How comfortable were you using this method?

\_\_\_\_\_ (1)

Q11.4 Did you try this method more than one time--that is, did you stop using it for a while, then start again?

- no, just one episode of using it (1)
- yes, two episodes of using it (2)
- yes, three or more episodes of using it (3)

Q11.5 Please describe one time you used this approach--what did you do, how was it for you and the baby?

Q12.1 Please describe any other methods you may have used around sleep time routines for your baby:

Q13.1 These next questions ask for your opinions about different aspects of child rearing. Please give your own opinions and do not worry about what others may think. You will probably agree with some statements and disagree with others. There are no right or wrong answers. Your opinions may have changed over time. Please answer based on your feelings now. (from Winstanley & Gattis 2013, Baby Care Questionnaire)

Q13.2 It is difficult to judge when babies need to sleep

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.3 Babies can have a good night's sleep regardless of scheduling

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.4 Strict sleeping routines prevent parent(s) from enjoying their child.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.5 I should be able to hear my baby during the night

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.6 Sleeping schedules make babies unhappy.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.7 It is important to introduce a sleeping schedule as early as possible.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.8 Babies benefit from a quiet room to sleep.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.9 Babies benefit from a fixed napping/sleeping schedule.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.10 Some days, babies need more or less sleep than other days.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.11 Babies benefit from physical contact with parent(s) when they wake during the night.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.12 When babies cry in the night to check if someone is near, it is best not to react outwardly.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.13 Babies' feeding/eating patterns change naturally with age

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.14 Implementing feeding/eating schedules leads to a calm and content baby

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.15 Feeding/eating routines are easy to follow

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.16 One danger of feeding/eating schedules is that babies might not get enough to eat

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.17 Parent(s) should find a pattern of feeding/eating that suits the baby

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.18 Baby-led feeding leads to behavioural and sleep problems

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.19 Following feeding/eating routines prevents parent(s) from enjoying parenthood to the full

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.20 It is important to introduce a feeding/eating schedule as early as possible

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.21 Offering milk/food to a baby is a good way to test whether she/he is hungry

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.22 Babies don't know when they are hungry

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.23 Babies will eat whenever milk/food is offered even if they are not hungry

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.24 Babies will not follow feeding/eating schedules

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.25 Babies with regular schedules spend less time crying

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.26 Babies cry no matter what their routines

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.27 Parent(s) should delay responding to a crying baby

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.28 Routines lead to more crying

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.29 It is not possible to know why a baby is crying

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.30 It is a good idea to have a set time you leave a baby to calm herself/himself down, and increase this amount of time each week

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.31 Physical contact such as stroking or rocking helps a baby to be calm

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.32 Holding babies frequently during the day makes them more demanding

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.33 Responding quickly to a crying baby leads to less crying in the long run

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.34 Having a set routine helps an upset baby calm down

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.35 Babies with regular schedules cry just as much as babies without regular schedules

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q13.36 Leaving a baby to cry can cause emotional insecurity

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.1 Next are some questions about your relationships with other people (Social Provisions Scale, Russel & Catrona, 1984)

Q14.2 There are people I can depend on to help me if I really need it.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.3 I feel that I do not have close personal relationships with other people.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.4 There is no one I can turn to for guidance in times of stress.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.5 There are people who enjoy the same social activities that I do.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.6 I do not think other people respect my skills and abilities.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.7 If something went wrong, no one would come to my assistance.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.8 I have close relationships that provide me with a sense of emotional security and well being.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.9 I have relationships where my competence and skills are recognised.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.10 There is no one who shares my interests and concerns.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q14.11 There is a trustworthy person I could turn to for advice if I were having problems.

- Strongly Agree (1)
- Agree (2)
- Disagree (3)
- Strongly Disagree (4)

Q15.1 How much of the time do you feel like you are doing this (parenting) on your own?

\_\_\_\_\_ feeling on my own (1)

Q16.1 The next set of questions asks for your opinion about different aspects of child rearing. Please give your own opinions and do not worry about what others may think. You will probably agree with some statements and disagree with others. There are no right or wrong answers to these questions since they are all matters of opinion. In addition, your answers will be treated with complete confidentiality. Read each item carefully, and when you are sure you understand it, choose the option that best expresses your feelings about the statement. Do not spend too much time on any item. Try to answer every question. (COPQ, Sameroff & Feil)

Children have to be treated differently as they grow older.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.2 Parents must keep to their standards and rules no matter what their child is like.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.3 It is not easy to define a good home because it is made up of many different things.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.4 Fathers cannot raise their children as well as mothers.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.5 The mischief that 2-year-olds get into is part of a passing stage they'll grow out of.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.6 A child who isn't toilet trained by 3 years of age must have something wrong with him.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.7 Parents need to be sensitive to the needs of their children.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.8 Girls tend to be easier babies to take care of than boys.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.9 Difficult babies will grow out of it.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.10 There is not much anyone can do to help emotionally disturbed children.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.11 Children's problems seldom have a single cause.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.12 The father's role is to provide the discipline in the family and the mother's role is to give love and attention to the children.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.13 Parents can be turned off by a fussy child so that they are unable to be as nice as they would like.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.14 Children's success at school depends on how much their mothers taught them at home.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.15 There is no one right way to raise children.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.16 Boy babies are less affectionate than girl babies.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.17 First-born children are usually treated differently than later-born children.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.18 An easy baby will grow up to be a good child.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.19 Parent change in response to their children.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q16.20 Babies have to be taught to behave themselves or they will be bad later on.

- Strongly Agree (6)
- Agree (7)
- Disagree (8)
- Strongly Disagree (9)

Q17.1 Next are some questions about how you have been feeling. Please choose the answer for each question that comes closest to how you have felt in the past week, not just how you feel today. (EPDS, Cox, Holden, and Sagovsky, 1987)

IN THE PAST WEEK,

Q17.2 I have been able to laugh and see the funny side of things

- As much as I always could (1)
- Not quite so much now (2)
- Definitely not so much now (3)
- Not at all (4)

Q17.3 I have looked forward with enjoyment to things

- As much as I ever did (1)
- Rather less than I used to (2)
- Definitely less than I used to (3)
- Hardly at all (4)

Q17.4 I have blamed myself unnecessarily when things go wrong

- Yes, most of the time (1)
- yes, some of the time (2)
- Not very often (3)
- No, never (4)

Q17.5 I have been anxious or worried for no good reason

- No, not at all (1)
- Hardly ever (2)
- Yes, sometimes (3)
- Yes, very often (4)

Q17.6 I have felt scared or panicky for no very good reason

- Yes, quite a lot (1)
- Yes, sometimes (2)
- No, not much (3)
- No, not at all (4)

Q17.7 Things have been getting on top of me

- Yes, most of the time I haven't been able to cope at all (1)
- Yes, sometimes I haven't been coping as well as usual (2)
- No, most of the time I have coped quite well (3)
- No, I have been coping as well as ever (4)

Q17.8 I have been so unhappy that I have had difficulty sleeping

- Yes, most of the time (1)
- Yes, sometimes (2)
- Not very often (3)
- no, not at all (4)

Q17.9 I have felt sad or miserable

- Yes, most of the time (1)
- Yes, quite often (2)
- Not very often (3)
- No, not at all (4)

Q17.10 I have been so unhappy that I have been crying

- Yes, most of the time (1)
- Yes, quite often (2)
- Only occasionally (3)
- No, never (4)

Q17.11 The thought of harming myself has occurred to me

- Yes, quite often (1)
- Sometimes (2)
- Hardly ever (3)
- Never (4)

Q18.1 If you are feeling distressed or overwhelmed, please consider using some of the supports that will be listed at the end of this survey.

Q18.2 Many factors in peoples' lives contribute to how they decide to parent their children. Please consider the following factors and tell us how much you feel they have contributed to your parenting decisions.

\_\_\_\_\_ Cultural traditions (1)

Q18.3

\_\_\_\_\_ Religious teachings (1)

Q18.4 \_\_\_\_\_ Books, magazines, or online materials (1)

Q18.5 \_\_\_\_\_ Television, radio, or other media (1)

Q18.6 \_\_\_\_\_ Advice from family (1)

Q18.7 \_\_\_\_\_ Advice from friends (1)

Q18.8 \_\_\_\_\_ Professional advice (1)

Q18.9 \_\_\_\_\_ Experiences from my own childhood (1)

Q18.10 \_\_\_\_\_ Other contributors (please explain) (1)

Q18.11: Any additional comments or things you'd like to tell us?

Q19.1 That's all our questions for now! Thank you so much for completing this survey! Want to talk more about this? One of our team members, Horiana Jones, is interested in the parenting experiences of Māori whanau, and would like to interview Māori parents of babies under age two. If you might be willing to talk with Horiana and hear about her study, and would like her to be able to look back with what you said on this survey, please enter the last four numbers in your phone number, and the first letter of your first name (e.g., if your number is 8465729 and your name is Mary, put 5729M). Then follow the link below to a form where you can put your contact details and express interest in the interview study. Your name and contact details will be kept separate to preserve the anonymity of the survey.

Q19.2 Caring for a young child can be exhausting, and many parents struggle with stress, distress, and depression. If you're feeling overwhelmed or isolated, please consider getting some extra support, for your own sake and for the sake of your child. You might ask your GP, midwife, clergy, or Plunket nurse for suggestions about resources in your area, or call Lifeline for telephone support, 24 hours per day in New Zealand: 0800 543354. Online, you might look at Mothers Matter: <http://www.mothersmatter.co.nz/>.

If you would like a summary of the results of this survey, or would like to be contacted about the interview study, please follow the link below. You will be asked to provide contact details. The contact information you provide will not be linked with the information you're

## **Appendix D: Research flyer**



rockabye baby...

cry it out!

How do you  
get your baby  
to sleep?

To swaddle or not to swaddle?



**Do you have a baby under two years old?**

**Please tell us your experiences, thoughts and feelings  
about infant sleep!**

**This online survey takes about 15-20 minutes on your  
computer or mobile phone:**

**ADDRESS: <http://psychology.waikato.ac.nz/babysleep.htm>**

**This research has been approved by the University of  
Waikato School of Psychology Ethics Committee**

*Questions? contact Carrie Barber [cbarber@waikato.ac.nz](mailto:cbarber@waikato.ac.nz)*

**Appendix E: Participant information sheet for Interview and Survey**

## **Your baby and their sleep**

Kia Ora, my name is Horiana Jones and I am a psychology student at the University of Waikato. I am currently writing my master's thesis on infant sleep practices in New Zealand. This study will look at what Māori parents are doing to put their pepi (babies) to sleep, where pepi sleeps, what advice you have received about infant sleep and where from, and parents' general approaches to infant sleep.

### **What is involved?**

You will be asked to participate in an interview about your baby, their current sleep habits, how you put baby to sleep, and information and advice you've received in regards to your babies sleep. Interviews will probably take about an hour to complete, and will be done at a location and time that suits you. A full interview transcript will be sent to you in 14 days after completing the interview. You will be able to edit/change or remove any content which you do not want used in the final report. Any changes need to be returned to the researcher within 14 days of receiving the full interview transcript.

### **Things to remember as a participant:**

- You have the right to decline participation in any part of the research
- You may withdraw from the research at any time without penalty
- Your identity will remain confidential
- You may email Horiana, at any time, with questions regarding you participation in the research

### **Privacy**

Your identity will remain confidential. After interviews are complete, we will take out any mention of your name or information that could link to you, and keep the data in a locked password protected computer.

### **Results**

Information will be used in my master's thesis, and may be published in a journal, online, or presented in a seminar. Should you wish to receive a summary of these findings you can indicate this on the participant consent form. This will be emailed to you following completion of the research.

### **Complaints**

This research is approved by the School of Psychology Human Research Ethics Committee. Any ethical concerns can be expressed to Prof James McEwan [jmcewan@waikato.ac.nz](mailto:jmcewan@waikato.ac.nz)

### **Where to from here?**

Your participation will be appreciated immensely. If you require further information, or have any questions, please do not hesitate to contact Horiana, Carrie or Linda on the details provided.

**Horiana Jones**

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021-372-788

**Dr. Carrie Barber**

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(07) 838 4466, ext. 6685

**Prof. Linda Nikora**

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(07) 838 4466, ext. 8200



## Appendix B: Information Page

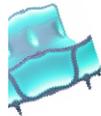


### Rockabye baby...Infant care and parenting around sleep



Sleeping like a baby? Sounds simple, except when it is not. Infant sleep is one of the most challenging and controversial topics for parents and the professionals who try to support them. Opinions are varied, and often strongly held. What works for you?

This study is about how parents and caregivers of infants (under age two) manage nighttime sleep—what they think, what they've tried, and what has worked and not worked for them. We would like to hear your thoughts and experiences in an online survey that asks about parenting practices, beliefs, and feelings around sleep and infant care. The survey takes about 15-20 minutes to complete. If you are the parent or primary caregiver for a child under two years old, we would love to hear from you.



The survey is completely voluntary—you don't need to answer any or all of the questions, and can stop at any time. It is also anonymous—we will not ask for your name during the survey, and completing the survey will serve as consent, so that you do not need to sign any forms. If you would like a summary of results, there will be a chance at the end to request this, but your contact information will not be associated with your survey responses.

One of our team members, Horiana Jones, is doing a more in-depth study of the experiences of Māori parents with infant sleep practices. If you are Māori and would be interested in meeting with Horiana for an interview, there will be a link at the end of the survey to volunteer, or you can contact Horiana directly at [Horiana.jones@gmail.com](mailto:Horiana.jones@gmail.com).



This study has been reviewed and approved by the University of Waikato School of Psychology Ethics Committee. If you have any questions or concerns about your rights as a participant in this research study, you can contact the chair of that committee, James McEwen ([jmcewen@waikato.ac.nz](mailto:jmcewen@waikato.ac.nz); 07 838 4466 ext 8295).



*Thank you for considering participating in this project!*

If you have any questions about the study, please feel free to contact Carrie Barber (838 4466 ext 6685; [ccbarber@waikato.ac.nz](mailto:ccbarber@waikato.ac.nz)).

To go to the survey, click on this link: <http://psychology.waikato.ac.nz/babysleep.htm>

