The wahakura: a qualitative study of the flax bassinet as a sleep location for New Zealand Māori infants

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Abstract

Aims The wahakura (flax bassinet) is presently being distributed as a safe infant sleeping device amongst New Zealand Māori, where sudden unexpected deaths in infancy (SUDI) rates are high. It is promoted as mitigating bedsharing risk by providing a separate infant sleeping surface. This study aimed to understand exactly what factors determine the apparent acceptability of the wahakura as an infant sleeping device to Māori mothers and other key Māori community stakeholders.

Methods The qualitative study used face-to-face, semi-structured interviews, following Māori cultural protocols, to explore the experiences and views of 12 Māori mothers and 10 key informants who had wahakura experience. We employed purposeful sampling of participants and thematic analysis of data.

Results The practical appeal of the wahakura related to its portability, the enabling of bedsharing and easier breastfeeding. Considerable cultural and spiritual appeal was related to its native flax composition and traditional origin. Health professionals found it useful to engage Māori women antenatally.

Conclusions The study affirmed the acceptance of the wahakura as a culturally initiated endeavour, meaningfully engaging Māori mothers and families in SUDI risk mitigation. It has the potential to capitalise on the benefits of bedsharing to enhance infant wellbeing while also safeguarding them from harm.

The wahakura, a simple woven flax bassinet-like structure capable of being used in the parental bed, is an innovative contributor to strategies aimed at reducing sudden unexpected death in infancy (SUDI) in the Māori community, where 62% of such deaths in New Zealand occur. This is a rate 4–5 times that of non-Māori, non-Pacific infants.\(^1\)

The wahakura enables a separate sleeping surface in the bedsharing environment\(^2\) potentially reducing the 43% of SUDI occurring during bedsharing.\(^4\) It is promoted in conjunction with a set of simple ‘safe sleeping rules’ that are based on New Zealand Ministry of Health recommendations.\(^3\)

The promotion of the back sleeping position saw dramatic reductions in infant mortality in Western nations throughout the 1990s. These reductions, however, disguised widening social and ethnic disparities, particularly amongst indigenous populations, as mortality became more prevalent in families where poverty, poor education, young and single motherhood and maternal smoking in pregnancy are prevalent.\(^5\)

In New Zealand, bedsharing Māori infants whose mothers smoked in pregnancy are most at risk.\(^6,7\) Strong anti-bedsharing messages promulgated by health professionals and coroners\(^8\) have been less than effective amongst many Māori families, arguably because bedsharing is both a valued cultural practice and a pragmatic response in a resource-poor and relatively mobile population.\(^9\) Similarly, smoking is prevalent in deprived communities and decreasing smoking amongst pregnant Māori women has been extremely difficult to effect.\(^10\)

The wahakura (Figure 1), a modern day reclamation of the traditional pōrakaraka,\(^11\) has been promoted and distributed in Māori communities around New Zealand through a number of health providers since 2007.\(^12\) Whilst it has been assigned “face validity” as a safe sleep device,\(^13\) a 3-year randomised control trial using a standard bassinet as the control\(^14\) is now underway to systematically
assess its safety. This study, the Kahungunu Infant Safe Sleep (KISS) study, has recruited 200 mainly Māori mothers from Hawke’s Bay midwifery practices that provide maternity care in deprived areas and will report shortly on its findings.

If the wahakura is deemed safe and is more widely promoted, it will be useful to understand exactly what factors determine its acceptability to Māori mothers and other key Māori community stakeholders. The qualitative study reported on here aimed to do this by exploring mothers’ and key informants’ experiences and views of the wahakura as a sleep location for Māori infants.

Figure 1. Wahakura (Photo credit: Kath Allen)

Methods

This exploratory qualitative study was undertaken in Hawke’s Bay and Tairāwhiti using face-to-face, semi-structured interviews. In keeping with Māori-focussed research it was designed and conducted by, with and for Māori and sought positive and improved outcomes for participants and their wider communities. Māori tikanga (custom) was observed throughout, particularly during the conduct of interviews and feedback of findings. The study reference group was the Rongoā Rōpū a traditional Māori medicine group coordinated by the tribal authority Ngāti Kahungunu Iwi Incorporated. Ethics approval was received from the New Zealand Health & Disability Multi-Region Ethics Committee in May 2012.

The 22 study participants comprised 12 mothers recruited from the KISS study and 10 key informants who had been involved with wahakura production or with families using them. Inclusion criteria for mothers were that they: had been randomly assigned a wahakura; were mothers of Māori infants; had completed the KISS study; and had consented to involvement in further research. We liaised with the KISS study research nurse to identify all participants who met our criteria.

Twenty-five women were eligible at our recruitment time. Although this group was relatively homogenous, we used a form of maximum variation sampling to obtain a mix of first-time and experienced mothers and a spread of mothers’ ages, at least half to be smokers. We determined that 12 women would be sufficient to reach saturation, the number after which no new information would emerge. We attempted to contact 19 of the 25 mothers before we had successfully recruited the required 12. The contact details for five were out of date, one had moved and another agreed to participate then declined without a reason.

Key informant participants from Hawke’s Bay and Tairāwhiti were selected purposefully for their knowledge and expertise about various aspects of wahakura production or use. They were identified through our research team’s networks and invited to participate. All those approached agreed.
Interviews occurred between September 2012 and March 2013. Mothers were interviewed at home by the second author, an experienced Māori interviewer. The other authors shared the key informant interviews which took place at home or work. All interviews but two were conducted in English interspersed with te reo Māori, as is now common. Two elders were interviewed completely in te reo Māori. All interviews were audio-recorded with permission.

Mothers were asked about their general impressions of the wahakura, how they used it, whether and how it assisted breastfeeding and (where relevant) how using a wahakura differed from not using one with previous children. Key informants’ questions varied according to their expertise but included their general impressions of the wahakura as an infant sleep location, their knowledge of historical precursors of the wahakura (if relevant), what feedback they had had from whānau (extended family) about it, their observations of how it is used and their views about the wahakura and safe sleep messages.

Interview audio-recordings were transcribed by research team members and translated where necessary by the interviewer. The data were analysed using thematic analysis. Coding was undertaken by the interviewer and at least one other research team member. The two Māori language key informant interviews were coded and categorised in the original language with salient portions translated for further team discussion. All research team members contributed to an agreed interpretation of the entire dataset. Preliminary findings were presented to our reference group, the Rongoā Rōpū, for their comment on cultural interpretation in February 2013 and their feedback was incorporated into the analysis of findings.

Results

As anticipated, 12 mother participants was a sufficient number for data saturation. All 12 identified as Māori. Four (aged 19–25 years) were first-time mothers and eight (aged 19–39 years) had other children. Infants ranged in age from 8 to 14 months at the time of the interview. Four mothers were solo parenting.

Six had smoked throughout their pregnancy. All mothers had used their assigned wahakura and use ranged from 1 to 11 months, with most using for 3 to 6 months. Almost all discontinued because their infant outgrew it. Within the themes identified there were no obvious differences between the talk of those living with the baby’s father and those not, or between smokers and non-smokers. More experienced mothers (M2), however, tended to talk longer and were more descriptive in their responses than young first time mothers (M1).

Amongst the 10 key informants there were five health workers providing care to wahakura users, four weavers and four community members/elders involved in some way with wahakura use in Māori communities. Three had expertise in two of these areas. All but one was Māori.

In addition to stories about historical precursors (to be reported elsewhere), three main themes emerged about the wahakura from the interviews: its practical value; its cultural and spiritual value; and its value as an infant health promotion tool. Verbatim quotes are used to illustrate the points made.

The wahakura’s practical value—The modern day wahakura was valued for the many practical advantages it provided. Families found they used them very flexibly, in a variety of places and ways, adapting them to their household routines and needs at the time. But its portability was by far the most commonly mentioned practical attribute. Compared to a bassinet, the wahakura was light, could be easily carried anywhere and utilised within and outside the house. It could be easily packed into a car and taken to a range of places, including the marae (traditional meeting place) and the homes of whānau.

   It was convenient, easy access to carry around and he [baby] loved it... I took him to my grandmother’s and she would look after him. It was easy for her being an elderly lady to pick it up, cart it around. (M2-5)

Another highly valued aspect was that it provided reassurance and confidence for those wanting to bedshare. It appeared to enable the benefits of infant closeness without worry about the prevailing
message not to bedshare. The proximity meant the infant could be easily checked, and although one mother found the wahakura sides somewhat “floppy”, most felt reassured by the demarcation they provided.

So I did feel safe... there was a guard between me and him when we were sleeping on the bed together. So it was reassuring in that way. (M2-1)

Several participants mentioned that having the infant close enhanced breastfeeding as it meant the mother did not have to get out of bed at night to feed and could easily settle the infant between feeds. This also improved sleep quality.

She’s almost 1. All my other kids I only breastfed for about 4 or 5 months because I couldn’t handle it. Well I was getting up every 3 to 4 hours, going back and forth from the cot and putting them back in. It just made me tired... I got more sleep with that wahakura. (M2-3)

Several key informants liked that the wahakura became the infant’s usual sleeping space, regardless of caregiver or location. They felt it created a protected space within busy homes and provided a consistent sleeping space for infants with several caregivers or those in transient families.

A lot of our babies and mums are transient. They move from house to house, from home to home... So I try to say especially to the younger ones “if you get used to using this wahakura right from the beginning then its use will become normal to you and to others”. (Health professional, KI-06)

Some minor criticisms did arise. These included some wahakura being too small for a 3-month-old baby, others taking up too much bed space, worries about loose strands of flax and the aforementioned “floppy” sides.

The wahakura’s cultural and spiritual value—The cultural value of the wahakura was a strong theme in both the mother and key informant interviews. Some mothers liked that the wahakura was “natural”, seemed “healthy” and had a “Māori look”.

Other mothers and most key informants saw deeper cultural attributes. Being made from harakeke (native flax), the essential material for the important cultural art form of raranga (weaving), the wahakura was a specifically Māori item and “part of our culture”.

Because it’s a flax Māori feel, you know, so they feel right from the start that it’s part of them that it’s a part of their whānau. So they’re really proud when they say that they have a wahakura. (Health professional, KI-05)

Older key informants considered harakeke and therefore the wahakura to have tapu (sacred) and rongoā (healing) qualities which enhanced infant wellbeing at all levels. The harakeke was perceived to emanate “warmth” that the baby was nurtured by. They referred to the wahakura as a “living thing”, meaning that it had an innate vitality and spiritual value.

It’s something Māori. Most of the mothers now know that the harakeke is a healing plant and that also helps. (Weaver, KI-02)

The wahakura was considered not just a sleeping space but a taonga (treasure) of significance to the whānau, “something your own blood, your baby, has slept in.” For some it also provided a link with their tipuna (ancestors).

This is what they had back in the day... Far out, I’m living my whānau history. (M2-3)

Key informants who worked with pregnant women to make their own wahakura considered it a vehicle for young Māori mothers alienated from their culture and tribal roots to reconnect with ‘being Māori’. Working with the flax, often for the first time, facilitated a sense of ‘doing something Māori’.

The wahakura as a vehicle for infant health promotion—Health professional key informants found the wahakura a useful vessel for effectively imparting safe sleep messages. Because it was considered
a Māori item, they found it facilitated engagement with the young Māori mothers and enabled a culturally conducive atmosphere to discuss important safety messages.

It made it a lot easier to have those conversations about smoking in pregnancy. Because where they had formerly been switching off and rolling their eyeballs or heading to the door, once you place a wahakura in the room there was a positive focus. They wanted to touch it, wanted to know about it, wanted to know if they could have one for their whānau. Immediately the wairua (spirit) of the relationship changed to a positive, open, receptive dialogue. (Health professional, KI-07)

Health professionals assisting pregnant women to make their own wahakura found this particularly effective for imparting safe sleep messages. The time spent making the item meant they were a captive and receptive audience and examples were cited where mothers gave up smoking during this process. This was largely achieved because it was seamlessly integrated with ‘doing’ and talking about ‘being Māori’.

I’ve always believed that the wahakura is an opportunity to introduce not only safe sleeping but also to introduce a cultural content into the antenatal care. It allows the women to talk about being Māori, to talk about their whānau. (Health professional, KI-06)

Discussion

Participants found the wahakura acceptable because of its practical and cultural/spiritual value and health professionals valued its ability to engage Māori mothers. Its portability, versatility, convenience and the sense of security it provided both inside and outside the home, along with its support for breastfeeding, were highly valued practical attributes.

New Zealand users of the Pēpi-pod®, another well regarded portable ‘safe sleep device’, valued these same practical attributes of their device. Similarly, low socioeconomic African American families in Oregon USA who were provided with small, portable and transportable cribs enthusiastically adopted them, valuing their portability and flexibility.

Using such devices in the parental bed appears to give mothers the purported advantages of bedsharing, particularly ease of breastfeeding, bonding closeness and better maternal sleep, without the guilt aroused by prevalent anti-bedsharing messages.

Debates in the literature about the merits and risks of infant bedsharing highlight, on the one hand, the above mentioned benefits and, on the other hand, the increased risk of SUDI amongst vulnerable infants. Ball and Volpe pose this as a conflict between two important public health agendas: bedsharing ‘promoting wellbeing’ and not bedsharing ‘safeguarding from harm’. Where risk to the infant is high it is particularly important to work skilfully with these conflicting agendas.

Most SIDS prevention campaigns in western nations have, however, tended to give universal warnings against parents sleeping with their infants, with scant acknowledgement of the benefits of the practice, the culturally embedded nature of bedsharing amongst some populations or the social and cultural diversity of populations they are trying to reach.

Infant sleeping practices are both a biological and cultural phenomenon and changing these in the interest of infant safety requires considerable care, involving a “nuanced approach” that is culturally meaningful and appealing. There is increasing evidence that effective health promotion strategies for indigenous and other ethnic minorities need to be developed, tailored and ‘owned’ by those they are intended to benefit. They need to engage with the deeper cultural, social and economic influences on behaviour, replacing a deficit model depicting indigenous peoples as the ‘problem’, with one that builds on the strengths of indigenous knowledge and practice.

Recreating a traditional practice and employing a valued traditional art form appear central to the wahakura’s acceptability and its cultural and spiritual value. Participants liked that it was woven from
flax and had a “Māori look”. It was also considered an avenue of cultural reclamation given the tradition of sleeping infants in flax bassinet-like items has been largely invisible in recent decades.

*Raranga*, the weaving of flax items, is a highly valued traditional art form that has survived colonisation and has taken on iconic value. The act of weaving *harakeke* is imbued with spiritual and sacred values as a cultural practice. That the *wahakura* draws and builds on a valued past tradition appears to make it a useful health promoting item and there is potential to further develop this function.

This ascription of cultural and spiritual value was not evident in talk about the aforementioned New Zealand Pēpi-pod® or Oregon crib. On the other hand, Native American modern day users of traditional Native American cradleboards, firm surfaces to which infants were secured for carrying and sleeping, talked about the cultural and spiritual value of these indigenous items and felt they reconnected them to “the ways of our mothers and grandmothers.” Reclamation of traditional knowledge and practices associated with the cradleboard was used by a Washington State SIDS prevention intervention, which successfully engaged Native mothers in learning about traditional infant care wisdom and practice as a vehicle for SIDS prevention message dissemination.

A limitation of this study was that our mother participants did not include any who had chosen not to use their assigned *wahakura* or who had used it for less than a month. These mothers may have been more critical. Also mothers were selected from a regional group with similar demographic profiles, possibly contributing to the consistency in their talk, and a similar study elsewhere may be useful. Finally, key informants chosen were by necessity involved in some way with the wahakura and therefore were possibly less critical.

In conclusion, provided they are deemed safe, portable infant sleeping devices have the potential to capitalise on the benefits of bedsharing to enhance infant wellbeing while also safeguarding them from harm. The *wahakura* and the Native American cradleboard are two such devices that have the added value of cultural currency. Utilising and adapting indigenous infant sleeping methods in this manner may also be possible in other indigenous and marginalised communities with high SUDI rates, for example the coolamon (a traditional wooden sleeping space) amongst Aboriginal Australians.

In addition to better managing the tension between promoting ‘wellbeing’ and ‘safeguarding’ from harm in regard to bedsharing, these initiatives represent a shift in health promotional thinking from an ‘indigenous as problematic’ to an ‘indigenous as solution building’ paradigm.

**Competing interests:** Nil.

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