Influences that affect Maori women breastfeeding

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ABSTRACT
This project aimed to identify the factors that influence Maori women’s decision to breastfeed or not. During 2004-2005, a diverse demographic of Maori women and family members was selectively recruited from within a major urban area, small towns, and rural areas. Thirty women who had cared for a newborn within the previous three years were interviewed, alone or together with other family members. All participants self-identified as Maori and were over 16. Women who had artificially fed their babies were underrepresented. Most of the participants had breastfed and their determination to breastfeed was strong.

This research proposes a new model for understanding how Maori women are diverted from breastfeeding. Five influences were identified: interruption to a breastfeeding culture; difficulty establishing breastfeeding within the first six weeks; poor or insufficient professional support; perception of inadequate milk supply; and returning to work. These influences occur in a temporal sequence and highlight opportunities for intervention. Factors that encourage breastfeeding are also discussed.

Key words: Breastfeeding, Indigenous, Infant feeding, Maori Breastfeeding Review 2007; 15 (2): 5-14

INTRODUCTION
Breastfeeding confers significant health benefits to children. In addition to the nutritional and psychological benefits and reduction in infant illness, breastfeeding benefits the mother physiologically and economically (Ministry of Health (MoH), 001). Whether or not women reach their breastfeeding goals depends on a number of factors: the provision of good quality advice, adequate support and instruction by professionals, and adequate opportunity to establish breastfeeding prior to discharge from hospital (National Health Committee, 1999).

The Innocenti Declaration on the protection, promotion and support of breastfeeding called for the reinforcement of a ‘breastfeeding culture’ to enable women to breastfeed their children up to two years and beyond (World Health Organization (WHO) 1990). A subsequent WHO expert consultation recommended that babies should be breastfed exclusively for the first six months (WHO 2001). New Zealand’s public health policies for increasing the prevalence and duration of exclusive breastfeeding include a commitment to the WHO and UNICEF Baby Friendly Hospital Initiative (BFHI) (MoH 2001). The BFHI promotes 10 steps including: that all pregnant women are informed about the benefits of breastfeeding and are helped to begin breastfeeding within an hour of giving birth; that mothers are shown how to breastfeed successfully and are encouraged to breastfeed on demand; and, that newborns are given no food or drink other than breast milk unless medically necessary. As most women spend under two days in hospital maternity units, the District Health Board Toolkit to Improve Nutrition (MoH 2001) recommends extending post-maternity care into the home and community.
Historical accounts suggest that before colonisation, Maori infants were always breastfed (Papakura cited in Ellison-Loschmann 1997). Best (1997) recorded that infants were fed for varying lengths of time; for example, until they could turn over without assistance, until teeth appeared, or for as long as the child chose to breastfeed. Papakura (cited in Ellison-Loschmann 1997) reported that breastfeeding was usually continued until the child was walking. Whilst some Maori still practice a few traditional infant care practices, such as ritual burial of the placenta, breastfeeding as the norm has been modified because of long exposure to Western models of care (Abel et al 2001). A widely-held belief still persists among Maori that a law was passed in 1909 forbidding Maori women to breastfeed, at least in public (Glover 2001). No such law exists but the myth conveys the depth of censure Maori women used to experience when breastfeeding (Ellison-Loschmann 1997).

Breastfeeding rates in New Zealand and for Maori particularly, are hard to determine due to inconsistencies in definition, age of collection, and the percentage of the population from whom the data is captured (MoH 2002a). In 2002, Maori breastfeeding rates were reported to be consistently lower than New Zealand rates with only 13-14% of Maori babies compared with 19-1% of European and other babies fully breastfed at six months (MoH 2002a). Table 1 compares the New Zealand breastfeeding targets set at that time with the Royal New Zealand Plunket Society (a provider of well-child services) breastfeeding data for 2006.

These figures suggest that there are cultural determinants and/or factors associated with minority populations that affect breastfeeding. In New Zealand, Maori are 14.6% of the population, while Pacific are 6.9% and Asian are 9.2% (Statistics New Zealand 2007). Hence, research is necessary to help identify factors that may hinder the initiation or maintenance of exclusive breastfeeding for different ethnic groups in New Zealand (Butler et al 2004).

The views of Maori women and their whanau (partner and extended family) who have recently raised children have not been comprehensively reported in the literature. Previous studies have included small homogenous sub-samples of Maori women using focus groups (Ellison-Loschmann 1997; McLeod, Pullon & Basire 1998; Beasley et al 1998; Abel et al 2001) or surveys of participants recruited through hospital maternity services (Gunn 1984). In the study by McLeod and co-workers (1998), focus group participants were all recruited through Plunket and in that of Abel and co-workers (2001), 26 Maori participants were all first-time mothers. The twelve participants in Ellison-Loschmann's study (1997) were recruited through a Maori health provider and included primiparous, multiparous and grandmothers providing a view of breastfeeding by Maori women across different generations. Dignam (1998) identified that inductive qualitative research was needed to understand the contextual, personal, experiential and cultural aspects of breastfeeding. Hence, this present study used an inductive qualitative approach with the aim of identifying the factors that influence Maori women's infant feeding decisions within the context of their whanau. Semi-structured face-to-face interviews with women, their partners and other family members were used.
METHOD

The existing body of knowledge on Maori women and breastfeeding reports the incidence and experience of breastfeeding and reasons for stopping for small homogenous investigation of phenomena within and in relation to their naturally occurring context (Wills & Raush in Patton 1986, p.192), was appropriate to the 'discovery oriented' aim of the project (Patton 1986, p.193). Recruitment was guided by a selective sampling frame (Coyne 1997), to maximize diversity of participants varying in age, parity, socio-economic and employment status. The cohort was also recruited from a major urban area (Auckland) and from smaller towns and rural areas in and around the Bay of Plenty. Participants were recruited through midwives, Maori nurses, Maori community health workers and the researchers' own networks. Media advertisements and articles were also used. No exclusion criteria were imposed. Whanau members were recruited at the same time as the mothers. Some were present when the mother was interviewed and recruited at that point. Others were recruited subsequently, when the mother indicated at interview that her whanau might wish to be involved.

The researchers drafted a mix of closed and open-ended questions designed to meet the research aims and sought expert opinion on the drafts. Some questions were suggested by the reviewed literature. For example, Disbrow (1964) found that nursing intervention and discussion with mothers of possible breastfeeding problems, within six weeks following their discharge from hospital, could increase the probability of successful breastfeeding. This research suggested that participants be asked about sources of information and support with infant feeding, the type and ethnicity of their Lead Maternity Carer (LMC), 'Well-Child' and other services accessed, and knowledge of available services. Participants were asked about feeding method(s) chosen and why, breastfeeding duration, and perceived beneficial or negative outcomes. These questions were based on Branin's (1964) conclusions that breastfeeding problems could be avoided or alleviated if the mothers received adequate information on breast care, breast changes, changes in infant feeding habits, diet, the importance of adequate rest and fluids, and the relation of breastfeeding stimulation to milk supply. Questions about the influence and support of whanau and others, which service they would recommend to others, and what advice they would give new mothers were asked because the literature showed that information and support played a vital role in helping mothers to breastfeed successfully (Ladas 1970).

Participants were given information sheets and assured of anonymity before their written consent was sought. Written information was provided in either Maori or English language as required. Identifying information, such as place of residence or occupation was changed or omitted. The interviews were conducted by a midwife or the principal investigator at places and times suitable to participants in, for example, their homes or workplaces. Interviews took approximately 40 minutes. Responses were handwritten on interview sheets. Direct quotes were marked as such. Each participant was given a retail voucher in recognition of their contribution.

Qualitative data were entered into Microsoft Word and sorted using the categories in the interview schedule. Quantitative data were entered into Microsoft Excel to organize the data for convenient access and frequency counts.
Validity of the data was complemented by the process of whakawhanaungatanga (to establish relationship), whereby the interviewer established a connection with the participant based on shared whakapapa (genealogy) or some other shared demographic. Whakawhanaungatanga assists with establishing the credibility and accountability of the interviewer and facilitates rapport. More truthful and in-depth responses can then be expected when Maori are informants (Stanley in Glover 2002). The entered data were double checked against the interview schedules by the principal investigator.

A general inductive approach was used to analyse the qualitative data (Pope, Ziebald & Mays 2000; Thomas 2006). This approach involved separating the text into segments and assigning each a category label. Inductive analysis allows for new or unexpected categories to emerge from the data. Each text segment was moved into its respective category, and some categories were linked together to form superordinate categories. The text segments were then transposed into paraphrased text with quotes. Resulting text was read for key points and a diagram was drawn to represent the relationship between the themes. For instance, the summary categories conformed to a temporal sequence, which resulted in the proposed model.

Ethical approval for the study was obtained from the University of Auckland Human Participants Ethics Committee.

Participants

Thirty mothers raising a child aged up to three years old and 11 whanau members of some of the women were interviewed. Demographic information is summarised in Table 2.

Experience of pregnancy

The mothers’ history and experience of pregnancy varied (Table 3). Two of the participants had whaangai (adopted) babies and one mother who had adopted had not been pregnant herself. Parity ranged from 1 to 12, with an average of 3.8 pregnancies, though most of the women had been pregnant 1 to 4 times. Slightly less than half (13) of the women had had from 1 to 6 miscarriages. Thus the number of live births ranged from 1 to 7 among those women. All children were born within the last 26 years.

RESULTS

Prevalence of breastfeeding

The mothers had babies ranging in age from 11 days to three years. Sixteen women were breastfeeding at the time of interviewing. Three women reported feeding their babies artificial baby milk. Babies who were breastfed exclusively ranged in age from one week to eight months. Many women continued breastfeeding until their children had transitioned totally to artificial baby milk and/or solids, which occurred anywhere between nine and 18 months. Three women breastfed in addition to their child’s diet for up to three years.
Twenty five of the women enjoyed breastfeeding; the remaining five, however, said they did not enjoy breastfeeding until they received help. Those who wanted to breastfeed exclusively said they enjoyed breastfeeding or endorsed breastfeeding, and did so because of the emotional, health and practical benefits. They spoke favourably of the intimacy and closeness with baby that they felt when breastfeeding. Many of the women believed that breastfeeding is better for the baby and results in a healthier baby. Practical reasons cited for breastfeeding included being easier, convenient and free.

**Influences that affect women's decision to breastfeed**

It is proposed that for Maori women, breastfeeding is the tika (right) way to feed baby. Some mothers said that breastfeeding is the norm and they and their whanau assumed that they would breastfeed. Artificial feeding or switching baby to artificial baby milk and solids early occurred as a result of influences that divert women from the preferred pathway of breastfeeding. The model, Te Reo o te Aratika (Figure 1), shows the five diversionary influences that were identified:

[FIGURE 1 OMITTED]

* breakdown in the breastfeeding norm within the whanau;
* early interruptions to or difficulties establishing breastfeeding;
* negative or insufficient maternity support for breastfeeding;
* lack of knowledge about how breastfeeding changes over time;
* and returning to work.

**Breakdown in the breastfeeding norm within the whanau**

Whanau attitudes towards breastfeeding, and whanau norms around infant feeding, influence a woman's decision to breastfeed or not and duration of breastfeeding.

The experience of sisters and mothers was the most salient for the women; they believed that their sisters and mothers had had similar breastfeeding experiences. For example, one woman said that she and her sister had the same physiology.

Some whanau reportedly had enjoyable and successful breastfeeding experiences, breastfeeding for extended periods. Several women had maternal role models who breastfed many children like one woman's mother-in-law who was of Cook Island and Tahitian descent and had breastfed all 11 of her children, and a foster mum who breastfed 14 children. One woman said her mother breastfed 'until we were four to five years old.'

Mum had six kids and her youngest is the same age as my first. She breastfed all ... I don't think she ever had a problem. With the first two she stopped at around five to six months. With the others she fed until at least 1 months. That's what she supports now.
Some women recounted that their mothers were wholly supportive of breastfeeding even though they might not have had the best experience themselves. For example, one woman said her mother thought 'how wonderful it was we could breastfeed because she could only get two to three months and we would get crotchety.' Some women’s mothers reportedly did not breastfeed for other reasons, for instance, one woman said her mother 'didn’t have milk’ and another’s ‘mother never breastfed at all. She came from that generation where they were told formula was best.’

A grandmother who was interviewed explained that she had a live-in nurse who helped with the care of her babies. According to the instructions she received at the time (over 40 years ago), she breastfed each of her daughters for two to three months before weaning to artificial baby milk. They did everything, fed, bathed every 4 hours. That was the 'in thing' then, in the homes and hospitals, night and day.

A few women recounted the experiences of aunties, cousins and whanau of partners, but they mainly recalled the ‘horror stories’ of cracked nipples and mastitis. They all told me they started off breastfeeding but their milk wasn’t enough.

In some whanau, artificial feeding or breastfeeding for a few months only has become the norm and new mothers within these whanau feel that they are breaking the cycle if they choose to breastfeed. My mother bottle fed. Everyone had allergies, babies constipated. I wanted to change that cycle.

**Early interruptions to or difficulties establishing breastfeeding**

The second diverting influence occurs in the first 6 weeks of baby’s life. This time point is when physiological factors and mother-infant dynamics determines the ease with which breastfeeding is established. Physiological barriers to breastfeeding, for example, inverted nipples or prematurity of the baby can make it more difficult to establish exclusive breastfeeding from birth. Interruptions to immediate establishment of exclusive breastfeeding and difficulties, such as painful cracked nipples, can discourage women from breastfeeding.

Most of the women (n = 3) initially had some problems with breastfeeding. Engorgement, described as ‘painful, big, hard’ and ‘sore’ was a common complaint.

Two mothers decided not to breastfeed because they had inverted nipples. A few women said their babies were either too small to latch on properly or were poor suckers. Six women said that their babies didn’t take to breastfeeding. Two women had had caesareans. They just kept feeding or used breast pumps to help bring in their milk. One woman who had had a caesarean said she also had difficulty latching baby on because of the pain of the wound and her large size.

One-third (n = 10) of the mothers suffered from cracked nipples within the first six weeks. They attributed cracked nipples to frequent feeding, baby not latching on properly and baby throwing their head around. Many of the women found breastfeeding painful to start with, especially if their nipples were damaged. Sometimes it gets so sore you don't want your baby to wake up because you don't want to feed them.
A few mothers said they had pain in their breasts. One woman, for example, had painful letdown. Other problems included blocked ducts, a milk blister, mastitis, and the mother or baby getting thrush.

Three babies were fed artificial baby milk within the first month of life. One baby was premature and too small to latch on. One mother had inverted nipples and found breastfeeding too painful. However, she did breastfeed, despite the pain, for the first two weeks to give her baby the colostrum.

I wanted to be a normal mother and breastfeed but when he wouldn't I got frustrated.

I felt happy as long as she got what she needed because I was stopping her half way through feeding. I'm quite bad about persevering I suppose, but I felt good she was getting kai [food]. Otherwise I would have preferred she was on the breast.

Of the mothers who said that they had some problems breastfeeding, most experienced challenges with their first child. For example, one mother explained how she thought she was feeding her first child properly but her daughter lost weight drastically within the first four days.

A similar range of problems was experienced during the women's previous breastfeeding experiences. A few women's problems prevented or curtailed breastfeeding. For example, one woman's first child, 11 at time of interview, was fed artificial baby milk because she was very ill following his birth.

I was in intensive care for 3 months and he was fed in SCBU [Special Care Baby Unit].

Several mothers had difficulty latching baby on to the breast. One mother, whose 8 year old had been born prematurely, said she 'found it hard.' Her efforts were confounded because she felt pressured to breastfeed. Another woman said 'it was hard to persist' with her first child who 'was a big baby' and 'a very fast feeder.'

Latching on brought tears to my eyes ... hadn't learned how to latch him on properly ... He was a very fast feeder, five to ten minutes at a time ...

As one mother said, babies are not the same. Some women, who had no difficulties breastfeeding their first child, reported challenges breastfeeding a subsequent child.

With [third youngest] I did have trouble latching. He was a notoriously bad latcher and I got really sore nipples. The other two were okay.

Nipple trauma was a commonly cited problem that women had experienced before. They reported getting 'cracked nipples from feeding all the time,' having sore breasts and feeling pain when baby fed, or being bitten once baby had teeth.

I tried to breastfeed but she totally ripped my nipples until bleeding and [the hospital] still expected me to breastfeed. I said go to hell.

One woman reported no problems breastfeeding her third child but she couldn't breastfeed her second child because she had inverted nipples, and her first child, she said, just didn't want to breastfeed.
Negative or insufficient maternity support for breastfeeding

The third diverting influence occurs when women’s experience of maternity services is negative or insufficient. The absence of effective antenatal education has left artificial feeding the unchallenged default. Lack of postnatal support and instruction has left women who have difficulties establishing breastfeeding with no choice but to use artificial baby milk. Behaviour that is insensitive to cultural differences or conflicting advice has also led some women to distrust health professionals, effectively denying them professional support. Feeling pressured to breastfeed, or pressured to breastfeed in a particular way, can be disempowering and may undermine a mother’s confidence in her ability to breastfeed.

Most of the participants had already decided that they would breastfeed so they did not believe that their doctor or LMC had been instrumental in their decision to do so. They believed that their doctor or LMC supported their decision to breastfeed.

I was going to do it whether she said it or not. I thought it was the natural thing to do.

I don't think she ever mentioned any alternative. There was an assumption that I would breastfeed. She’s a proactive encourager of breastfeeding.

A few women believed that they were influenced to breastfeed by their midwife or another health professional. For example, one woman had decided that she was not going to breastfeed but the nurse in recovery asked her to feed baby the colostrum, and the mother continued to breastfeed for six months.

Another mother said she was influenced by the midwife who just gently pushed it' when the midwife visited and they were preparing baby's bottle. Another mother recalled only that she had been told breastfeeding 'was best and nothing else.' She added however that she 'wouldn't have wanted it pushy.' Another woman, who as a result of postnatal complications had to bottle feed her first child, breastfed her youngest child after the midwife’s explanation of the health benefits. She was particularly influenced by 'the cot death part and that there would be less chance of him getting sick.'

When I was three months hapu [pregnant] she was saying it would be more healthier for baby and it would reduce the risk of cot death.

A few mothers experienced the advice as ‘pressure’ in a negative way. One mother with inverted nipples who had experienced a lot of pain said she ‘felt pressured when it wouldn’t work.’ Another woman, who had cracked nipples, sore and engorged breasts, and a baby with thrush, felt he wasn't taking to breastfeeding. Her midwife, who had been advising how to latch baby on to the breast, said try and latch him on again.

I tried but it didn’t work. I was getting frustrated.

A few women felt they were supported in their decision to artificially feed their babies.

[The hospital said] breastfeeding would be the best thing for baby. She could see I didn't really want to keep forcing him to breastfeed so she said if I had to, give him formula.
Support with preparation

Many of the mothers did not recall receiving any advice on preparing for breastfeeding. A few women recalled that their Doctor or midwife had asked about or visually checked their breasts, especially those with inverted nipples or a known history of breastfeeding complications. A few mothers asked their Doctor or LMC to check their breasts because of a suspected problem, such as having a breast lump, inverted nipples, or having had problems breastfeeding previous children. Several women said their LMC only looked at their breasts once 'baby was there and sucking on them.'

It was a crash course afterwards.

Most of the women had never, or not during their most recent pregnancy, attended any antenatal classes.

Postnatal support to breastfeed

Mothers who had given birth in hospital stayed from half an hour to up to 11 days after their baby's birth. Several women went home within the first 24 hours. Those who stayed longer did so to rest or recover, for example from a caesarean birth. Two mothers had homebirths.

Most of the mothers were breastfeeding with varying success before they were discharged. A few said they were going brilliantly. A few thought they were doing okay and some were a bit sore but not too bad. Others were already experiencing nipple trauma or having latching problems.

Many mothers reported receiving advice or help to breastfeed once baby was born, from midwives, maternity nurses, lactation consultants and family. The depth and helpfulness of the advice and support received varied greatly. Some advice was simplistic and unhelpful.

When they first help you out they just shove baby's head into tit.

Some advice was more detailed and covered positioning, latching and diet. One woman believed that the midwife is the best resource because 'there's a lot of pressure, social norms--it's already a major structural change having a baby' and her midwife 'just gently rolled the process along.' Whereas 'some people are adamant "you must do this" and "do that."' They should, she felt, back off and leave women alone.

Some were lovely and some were rough--tugging and pulling--and I ended up telling a couple to just leave me.

A few mothers recalled receiving advice on frequency of feeding and a couple of women felt admonished when they did receive this advice.

I didn't realise I was supposed to wake her and feed her. I was just exhausted. Midwife came and said 'oh you haven't fed her.' We got out of there as soon as possible.

One problem cited was conflicting advice regarding how to latch baby on. Participants said it was 'very confusing' when health professionals contradicted each other.
I started breastfeeding supporting my breasts but the nurse said not to because it would block the milk ducts ... One would tell you to do it like this and another would tell me another way.

The nurse in recovery at [the hospital] was good. She put baby to breast and helped latch. Other midwives at [a birthing service] tried to and offered but they all said something different. One thing that was really disempowering was that all the official information and midwives and lactation consultants said if it hurts you're doing it wrong.

Some mothers did not receive as much help as they would have liked and some said nobody watched them.

**Occasional use of artificial baby milk**

Some women recalled being advised to top up their babies with artificial baby milk within the first days of life because of excess weight loss and jaundice. Most mothers advised to do this were not happy about it. Two other mothers used artificial baby milk during the first few days until their milk came in because they felt that their babies weren't getting enough from them.

From time to time some usually breastfed babies were given artificial baby milk or solids, for example, when their mother was not around.

In the first three months my mother would give him 125 mLs of water in a bottle. My mum advised that. I didn't like it.

**Lack of knowledge about how breastfeeding changes over time**

The fourth diverting influence occurs at approximately four months. Postnatal midwifery care has ended and the next early childcare check is not due until 5 months of age. If mothers have not been adequately prepared for growth spurts in the child and resulting physiological changes that occur in the breasts, they can conclude that their milk is insufficient.

Plunket nurse was concerned because his feeds were getting more frequent so we started topping him up in the third month with expressed milk and formula because I'd just run out.

One woman said she introduced solids at 4 months because her baby 'was restless.' Another mother tried to shift her baby to solids at 4 months because she'd had a lot of problems breastfeeding and she felt like her baby wasn't getting enough sustenance. One mother said she began to introduce solids at 4 months according to the 'Pepi' (baby) program at the hospital. She never used a bottle and continued breastfeeding until her child was 18 months old.

A few women said their child determined when they stopped breastfeeding. For example, one participant said her baby 'chose to stop' at six months old.

It was her. She just wouldn't take it. She took herself off.


**Returning to work**

The fifth factor that diverts women from breastfeeding is the need to return to paid work, which occurs at different time points depending on whanau circumstances. Paid parental leave in New Zealand provides up to three months' leave, only for permanent fulltime workers with at least six months of service.

Some women stopped breastfeeding or had to stop because they had to return to work. One woman returned to work fulltime at four months.

> With this child I was the most unhappiest about stopping breastfeeding but with the others I felt they had had a good go ... I would have continued to breastfeed by expressing but I couldn't get the hang of it.

Some women had returned to work part-time, doing anything from a few hours at a time to doing one day a week or fulltime. The timing of the return to work varied, depending upon whether they had received paid parental leave.

Some women were off work for only nine weeks and others didn't return to work until baby was 10 months old. One woman was able to breastfeed a previous child for about a year because she had a year off work. Women intending to return to work talked about how they would manage to fit work duties around their baby's needs.

Returning to work also influenced patterns of breastfeeding. For instance, one mother who wished to fully breastfeed her baby for 3-4 months said that when she returned to work she would reduce breastfeeding to one feed in the morning and one feed at night. Some women were able to breastfeed while at work. It varied as to how possible this was. For example, one teacher said, 'If it was a classroom full of teenage boys it wasn't that easy, but I did it.'

Breastfeeding at work was easy for another woman because she had her own office and could close the door.

> It was like a social experiment to see who could manage watching breastfeeding and who couldn't. I just breastfed anywhere I wanted. My HOD [Head of Department] was very supportive. She made it absolutely clear that it was okay and that made the difference to making me comfortable with that.

Some women breastfed 'anywhere and everywhere.' As one woman said, 'I didn't see it as my problem, it's their problem.' Another woman, who returned to work when her baby was three months old, would sometimes travel to the daycare to feed her baby there. A couple of women did, however, find it difficult to breastfeed at work.

> I went into the library when I was at work. It was okay but it would make it easier if mamas have their own private feeding room.

**DISCUSSION**

Intent to breastfeed was strong among the women in this study. However, they needed determination to breastfeed as they faced challenges whilst establishing breastfeeding and as they sought to continue breastfeeding throughout their child's first few years of life. As in previous studies, the women were keen to breastfeed because of the perceived physical and emotional benefits for themselves and their babies (Ellison-Loschmann 1997; Abel et al 2001). Many of the women assumed that they would breastfeed and were not aware of having made a choice. This finding was similar to that of a previous study of Maori women (Ellison-Loschmann 1997), and in a study of infant-feeding beliefs and
practices in an urban Aboriginal community (Holmes, Thorpe & Phillips 1997). Other authors have also found that most women experience breastfeeding problems within the first four to six weeks (Abel et al 2001; Holmes et al 1997; Ellison-Loschmann 1997; Binns & Scott 2002). Breastfeeding problems were also common among the whanau members who had breastfed, regardless of generation. The few women who chose to artificially feed their infants did so because breastfeeding was unpleasant due to problems, such as inverted nipples.

Some women began to switch their babies from breast-milk to artificial baby milk and/or solids from approximately four months. Several talked about feeling that their milk wasn’t sufficient. These comments were common enough among the mothers and whanau members as something they had felt at some time, with one or more children, to be considered a strong theme. Unlike other studies (Gunn 1984; Bergh 1993 cited in Beasley et al 1998; Holmes, Thorpe & Phillips 1997) which conclude that perceived insufficient milk is a leading cause of breastfeeding cessation, it only appeared to become a primary reason for ceasing breastfeeding at four to five months, in this study.

Mulford (cited in Beasley et al 1998) attributed perception of insufficient milk to a 'loss of a breastfeeding culture.' Breastfeeding dropped off sharply in New Zealand after the end of World War II, reaching its lowest point in the late 1960’s (MoH 2002a). One reason that Maori breastfeeding rates may have followed this decline was that in the 1950s and 1960s Maori believed in the Plunket way and in the absolute authority of the doctor and the hospital (Mead 2003). The breastfeeding experience described by whanau members from that earlier generation contrasted with the women interviewed for this present-day research, in that the whanau were instructed to feed at scheduled times and switch to artificial baby milk after a few months of breastfeeding. Abel and co-workers (2001) concluded that Maori women’s preference to seek advice from professionals, sisters and peers was probably because many of their own mothers had not breastfed.

As with other studies, having to return to paid work was another reason given by several women for stopping breastfeeding (Gunn 1984; Butler et al 2004). The timing of the women’s return to work varied, depending upon whether they had received paid parental leave. Some women had experience of breastfeeding while at work and some breastfed at will regardless of the surroundings. A few women found it difficult to breastfeed at work.

**Support to breastfeed**

Most women in this research had not accessed any antenatal education, a factor associated with early cessation of breastfeeding (MoH 2002b). They also appeared to leave hospital as soon as possible after birth. Many of the women reported receiving advice or help to breastfeed only once baby was born. Postnatal breastfeeding support from midwives varied in quantity, perceived usefulness and timeliness. Sometimes advice came from multiple sources, such as maternity nurses, hospital midwives, the woman’s LMC, lactation consultants, and family members. Some women complained about receiving conflicting advice regarding how to latch baby on, how to hold baby, whether to support the breast or not, how often to feed baby, what to feed baby and by what method. Abel and co-workers (2001) found that inadequate and conflicting advice were associated with early cessation of breastfeeding. A few participants in this
study described the support they had received as disempowering, especially if they were told they were doing it wrong. This evidence supports Dignam's (1998) and Gunn's (1984) conclusions that health professionals can be perceived as obstacles to breastfeeding success if they have rigid or negative attitudes and inappropriate lactation management strategies.

**Limitations of the research**

A diverse range of women were interviewed in terms of age, socio-economic status, gravida, parity, pregnancy wantedness, whanau support, birthing experience and baby’s age. However, women who didn’t want to breastfeed and women who weaned their babies early were under-represented in this research. Only three babies were artificially fed from within their first month of life. This finding is most likely because women who had breastfed were more likely to respond to advertisements, notices and word-of-mouth recruitment methods, despite use of the term infant-feeding. It may be that women who had not breastfed need to be recruited more directly, for instance by saying we are looking for women who fed their babies artificial baby milk.

**CONCLUSION**

The five diversionary influences proposed here highlight critical foci and times for intervening. Maori women share many of the challenges to breastfeeding experienced by other women. What is unique to Maori is that foreign infant care practices have displaced pre-European Maori infant feeding practices to such a degree that Maori women now have the lowest rates of exclusive or full breastfeeding in New Zealand. Promotion of breastfeeding to Maori should focus on re-establishing breastfeeding as a tikanga (right cultural practice) rather than a perceived lifestyle choice.

The findings of this research reiterates many of the barriers to breastfeeding identified in the MoH's (2002b) Breastfeeding: A Guide to Action: limited or no delivery of antenatal education; poor suckling/attachment; early weaning and introduction of solids; dissatisfaction with hospital care; conflicting advice from different health professionals, and limited or no delivery of culturally effective maternity services.

Public health policies are needed to support breastfeeding from birth, throughout infancy and beyond. Currently in New Zealand, paid parental leave supports exclusive breastfeeding for only the first three months for some babies. This provision should be extended to benefit all babies of mothers who were working pre-pregnancy, and to provide for a longer period of time off work.

Further research with a larger and broader sample of Maori women, their partners and other whanau is warranted to test the model of diversionary influences proposed in this paper.

**IMPLICATIONS**

This research reinforces the need for the MoH to implement their Breastfeeding: A Guide to Action goal three: ‘to gain active participation of Maori whanau/family to improve breastfeeding promotion, advocacy and support.’ This research suggests there are opportunities for maternity care services to improve, monitor and maintain the effectiveness and
delivery of antenatal education, breastfeeding resources and postnatal care to Maori women. There is a need for recognition and valuing of Maori infant care practices and health beliefs, and adaptations to increase partner involvement and other whanau support.

ACKNOWLEDGEMENTS

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REFERENCES


Coyne I 1997, Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries? J Adv Nurs 6: 6 3-630.


Disbrow M 1964, Nursing Intervention as a factor in successful breastfeeding sessions. American Nurses Association, Monographic 4: 5-1.


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Table 1: Comparison of Plunket babies (exclusively and fully breastfed in 2006) with Ministry of Health target rates for breastfeeding.

<table>
<thead>
<tr>
<th>Age of infant</th>
<th>Maori</th>
<th>Pacific</th>
<th>Asian</th>
<th>European/Other</th>
<th>All</th>
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</thead>
<tbody>
<tr>
<td>2-6 weeks</td>
<td>58</td>
<td>56</td>
<td>55</td>
<td>71</td>
<td>66</td>
</tr>
<tr>
<td>10-16 weeks</td>
<td>45</td>
<td>48</td>
<td>52</td>
<td>59</td>
<td>55</td>
</tr>
<tr>
<td>4-8 months</td>
<td>17</td>
<td>19</td>
<td>25</td>
<td>29</td>
<td>25</td>
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MoH target rates for exclusive and full breastfeeding (%)

<table>
<thead>
<tr>
<th>Age of infant</th>
<th>2005</th>
<th>2010</th>
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<tbody>
<tr>
<td>6 weeks</td>
<td>74</td>
<td>90</td>
</tr>
<tr>
<td>3 months</td>
<td>57</td>
<td>70</td>
</tr>
<tr>
<td>6 months</td>
<td>21</td>
<td>27</td>
</tr>
</tbody>
</table>

(a) Royal New Zealand Plunket Society 2006; MoH 2002a
Table 2: Participant details
Women raising a child of 3 or younger (n = 30)

- **Residential area**
  - Major urban centre (Auckland): 19
  - Metropolitan sized city: 2
  - Rural area or small town: 9

- **Marital status**
  - Married or de facto relationship: 22
  - Single: 4
  - Partner living elsewhere: 4

- **Benefit recipient status**
  - Community Services Card: 23
  - Unemployment benefit: 3
  - Domestic purposes benefit: 5
  - Sickness/invalids benefit: 2

- **Employment status**
  - Full-time workers: 11
  - Part-time or casual workers: 5
  - Unemployed: 14

- **Age range of mothers**
  - 19 to 46 years

- **Educational attainment**
  - Ranged from less than 12 years' schooling to University educated

Whanau members of women interviewed (n = 11)

- **Relationship to woman**
  - Mother: 4
  - Male partner: 2
  - Female partner: 1
  - Aunty: 2
  - Sister: 1
  - Cousin: 1

- **Number of children**
  - None: 2
  - One to six: 9

- **Age range of children**
  - 2 months to 56 years

Table 3: Pregnancy history

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