EQUAL EMPLOYMENT OPPORTUNITIES' CONTESTABLE FUND PROJECT

Developing Breastfeeding-Friendly Childcare to Support Mothers in Paid Employment and Studying

Case Studies of Two Centres and Draft Guidelines for Supporting Breastfeeding in Childcare

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We would like to thank Dr. Julie Smith[1] and Associate Professor Prue Hyman[2] for their assistance in reviewing this report.

Project Outline

The project consists of two stages. Stage One, which was prepared by Judith Galtry and Marcia Annandale[3], examines ways in which New Zealand workplaces might become more breastfeeding-friendly and is aimed primarily at employers. Stage Two (this report) consists of a small-scale, exploratory study examining support for breastfeeding within two New Zealand childcare centres and outlining a set of preliminary, draft guidelines for "breastfeeding-friendly" childcare. It was initiated and managed by Dr Judith Galtry, who has had extensive research experience in the area of breastfeeding, women's employment and childcare related issues, including for a range of governmental and non-governmental organisations both in New Zealand and internationally. It was prepared as a joint effort with Dr Sarah Farquhar, a parenting and education researcher, coordinator of the ChildForum Research Network, and managing editor of the journal *New Zealand Research in Early Childhood Education*.

Stage One of this project contains material that is also relevant to the issue of breastfeeding-friendly childcare. It has a series of sections examining: the international legislative background, including New Zealand's international treaty obligations with implications for the protection, promotion and support of breastfeeding; the national legislative and policy framework, including parental leave legislation, human rights law and equal employment opportunities considerations; as well as practical considerations for employers with regard to establishing breastfeeding-friendly workplaces.

The objectives of the second stage of the project (the focus of this report) were:

- To present case studies of two New Zealand childcare centres seeking to improve support for breastfeeding and identifying possible barriers and solutions.

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[2] Prue Hyman is Associate Professor of Economics and Women's Studies at Victoria University of Wellington. She has wide experience of EEO related issues.

[3] Marcia Annandale is an accredited lactation consultant with an independent breastfeeding practice and currently the Pacific Regional Representative on the International Baby Food Action Network Asia Pacific Council.

- To produce a set of draft guidelines for early childhood services and childcare centre administrators on the benefits and practicalities of supporting mothers in paid employment or studying, taking into consideration the national and international literature in this area. The purpose of the objective was to help to advance the goal of equal employment opportunity for women in New Zealand.

Executive Summary

This report outlines case studies of two New Zealand childcare centres that were interested in identifying ways to improve support for breastfeeding. It also presents a set of draft guidelines childcare centres can use to support the continuation of breastfeeding by mothers in paid employment or studying. The guidelines for breastfeeding–friendly childcare were developed from consideration of both the case studies and national and international guidelines for breastfeeding in childcare.

Centre A catered for infants and young children (two years and under) of parents who were studying at a tertiary institution. The centre did not have a written policy on breastfeeding but the staff demonstrated an awareness of the importance of creating a breastfeeding-friendly environment. Centre A supported breastfeeding in practice by:

- Providing a space (a parents' room) for mothers to breastfeed.
- Asking parents to phone the centre to check on their child's well-being and for parent-teacher communication regarding the infant's breastfeeding schedules, including the feeding of expressed breastmilk (EBM).
- Feeding children according to parents' requirements, with an emphasis on encouraging and supporting breastfeeding.
- Assisting parents to meet their child's needs for optimal nutrition and good health, through making parents aware that the centre encouraged and supported breastfeeding.
- Having a fridge for the storage of EBM and water heating facilities in both the under-ones and the toddlers' areas of the centre.
- Providing toys, reading material, sofas and cushions in the parents' room.
- Providing space (a kitchenette) for parents to heat food, make themselves a hot drink, or get a glass of water.
- Providing space (a study room) for parents to work in if they wished.

Centre B catered for the children (up to five years of age) of parents who were in paid employment. Partly because of the structure of the booking arrangements, the predominant method of infant and young child feeding in Centre B focused on formula feeding and, to a lesser extent EBM feeding, with the expectation that breastfeeding would continue at home. While there were currently no parents leaving EBM at the centre for breastfed infants, this had occurred in the past. Families provided EBM (frozen cubes or in bottles) and infant formula for staff to make up.

Centre B was inspired after hearing of this proposed study to introduce provisions that would provide greater support for breastfeeding. A written policy on breastfeeding was developed and Centre B was working on communicating this policy to let new mothers know that the centre supported them to continue breastfeeding. While explicit support for breastfeeding was in its early stages, Centre B identified certain policies, provisions and practices as important to supporting breastfeeding:

- Informing parents during the enrolment interview that breastfeeding was encouraged and supported.
- Developing a written policy for breastfeeding support to be shown to all new parents.

- Welcoming parents to phone the centre and visit their child during work breaks, including for breastfeeding purposes.
- Demonstrating openness and increasing staff awareness about optimal infant nutrition through breastfeeding.
- Attempting to lessen the stress for working mothers wishing to continue breastfeeding.
- Making the staff room available for breastfeeding mothers and the manager's office when the staff room was in use (although later comments demonstrate that lack of specific breastfeeding space was sometimes problematic for both staff and mothers).
- Providing cushions on the floor of the under-twos children's area for breastfeeding mothers to sit on.
- Having a fridge for the storage of expressed breastmilk, a freezer available for frozen EBM (as well as sterilizing equipment for bottles/cups used to feed EBM to infants under 3 months) and water heating facilities.
- Providing a water cooler and offering breastfeeding mothers a glass of water.

An analysis of the case-study data highlighted several factors that were important for supporting parents' success and continuation of breastfeeding, namely:

- An openness and willingness to learn more about the necessary requirements for supporting breastfeeding in the child care setting, including correct techniques for storing, handling and feeding EBM *and* appropriate complementary feeding.[4]
- A physical and attitudinal environment conducive to mothers wanting to stay in the centre and feeling comfortable about breastfeeding.
- A written breastfeeding policy outlining support for breastfeeding and breastmilk expression.
- Understanding and meeting family requests about infant feeding and identifying ways in which staff could better support and encourage the breastfeeding relationship.
- An emphasis on communication between families and staff, including both written and verbal communication about the infant's feeding requirements and schedules.
- An awareness among supervisors and staff of their educative role as early childhood education and development specialists. Where appropriate, advising parents about optimal infant nutrition, including ways to continue breastfeeding.
- Providing reassurance to mothers experiencing difficulties with breastfeeding and, where appropriate, encouraging them to take extra time to breastfeed if they are experiencing breastfeeding difficulties.
- A non-judgmental and supportive attitude towards families that make or have already made the decision not to breastfeed or to continue breastfeeding. This should include an understanding of the correct methods for preparing breastmilk substitutes.
- Providing information for parents on accessing health professionals and breastfeeding specialists.

[4] The period of complementary feeding is defined as "the period during which other foods or liquids are provided along with breastmilk." [Dewey, K. (2000). *Approaches for improving complementary feeding of infants and young children.* Background Paper prepared for WHO/UNICEF Technical Consultation of Infant and Young Child Feeding, Geneva, March 13-17].

A number of issues for childcare employers, managers and staff in creating a breastfeeding-friendly centre and balancing the needs of parents, their children, other children and staff emerged from the study. These included:

1. Promotion of the centre as breastfeeding friendly.
2. Recognition that breastfed infants have different needs from babies that are fed on breastmilk substitutes.
3. Different cultural understandings and practices about appropriate infant feeding practices.
4. Staff knowledge, support, and professional development opportunities.
5. Attitudes towards breastfeeding older children.
6. Booking arrangements and hours of attendance.
7. Meeting children's needs for optimal nutrition through breastfeeding and timely feeding and mothers' needs for childcare.
8. Providing appropriate facilities and equipment to support breastfeeding and the storage, handling and preparation of EBM.
9. Providing a choice of spaces in the centre for breastfeeding.

Drawing on the findings of the study and on the international and national guidelines for breastfeeding a set of guidelines for supporting breastfeeding in childcare was drafted. The guidelines are included as part of this report. This is the first iteration of the guidelines. Further research, discussion and consultation is needed to examine the relevance and outcomes of the draft guidelines in a greater range of different childcare centres and for families of different ethnic groups. It is hoped that this small-scale exploratory study will generate discussion amongst childcare centre employers, employees, and parents, and that feedback will help to inform subsequent iterations of the guidelines. It is also hoped that this study will lead to breastfeeding being recognised and established as a core component of early childhood education in New Zealand.

Contents

Introduction

The support of breastfeeding in childcare centres has become important. An increasing number of children are being placed in childcare from a younger age while their parents are in paid employment or studying. For many new mothers, the decision to resume employment will be influenced by, or even reliant upon, the degree of support provided for breastfeeding within the childcare setting. The development of breastfeeding-friendly childcare thus represents an important step in advancing the government's objective of equal employment opportunity for women.

This project focuses primarily on support for breastfeeding within the full-day childcare centre setting. There is also the need for further research examining breastfeeding support among home-based family caregivers, such as those enrolled in the Barnardos program, and among other types of early childhood education groups that cater for infants and toddlers such as Playcentres, Kohanga Reo and Pacific language nests.

Support for breastfeeding, including within a variety of settings, is also fundamental to the government's objectives for improved child health. Child health has been identified by the Ministry of Health as an area in which New Zealand has a relatively poor record and potential for improvement and, hence, one of its priority areas.[5] Included amongst the key issues identified for child health is the need for a focus on the requirements of children in their first year of life, with breastfeeding central to this focus. The development of breastfeeding-friendly childcare would also support the Ministry of Health's goal of increasing breastfeeding rates and duration among all New Zealanders, but especially Maori and Pacific peoples, outlined in its recently released *Breastfeeding Action Plan*.[6]

Support for breastfeeding in the childcare setting also represents a quality concern for early childhood education services. Childcare centres should be settings for health promotion, emphasising the facilitation of practices and the maintenance of environments which promote the wellbeing of children and families[7]. Traditionally the focus in childcare settings has been on the minimisation of infectious diseases rather than health promotion. As well providing a health promoting environment quality childcare recognises both the mother's and the child's needs. A mother's decision to continue to breastfeed is strongly influenced by the support she receives[8]. Childcare providers have a responsibility to consider how best to support breastfeeding and to develop policies and practices for this. Te Whaariki: Early Childhood Curriculum[9] under the goal of belonging ("children and their families experience an environment where connecting links with the family and the wider world are affirmed and extended")

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[5] Ministry of Health. (1998). *Child Health Strategy*. Wellington: New Zealand Ministry of Health; Ministry of Health. (1998). *Our Children's Health: Key Findings on the Health of New Zealand Children.* Wellington: New Zealand Ministry of Health.

[6] Ministry of Health. (2002). *Breastfeeding: A guide to action*. Wellington: Ministry of Health.

[7] Hayden, J., & MacDonald, J.J. (2000). Health promotion: A new leadership role for early childhood professionals. *Australian Journal of Early Childhood, 25*(1), 33 - 39

[8] Canadian Child Care Federation (2002). Resource Sheet No. 57. Accessed on-line at http://www.cfc-efc.ca/docs/cccf/rs057_en.htm (date of access 10/12/02).

[9] Ministry of Education (1996). *Te Whaariki: Early Childhood Curriculum.* Wellington: Learning Media.

suggests as an example of how to meet this goal that "mothers who are breastfeeding are supported and provided for" (p. 56-7).

In recent years there has been a considerable growth in infant enrolments in early childhood education (including childcare). Between 1992 and 2001 there was a 39 percent change in the number of under-ones in early childhood education (from 5,890 to 8,185) and a 57 percent change in the number of one to two-year-olds (from 13,367 to 20,998)[10]. Childcare centres, followed by family day care programmes, are the main providers of under threes early childhood education. A national survey of parents' childcare responsibilities showed that childcare availability and suitability can have a significant impact on women's employment and participation in study/training[11]. Being supported by their childcare service to continue to breastfeed may influence women's decision as to when they return to work and help to achieve improved breastfeeding rates[12].

In New Zealand, there has been little improvement in breastfeeding rates for the past decade. The Ministry of Health (2002) reports that there are considerable variations in breastfeeding rates within New Zealand both geographically, and for the different ethnic groups at both six weeks and at 11-15 weeks (three months), with Maori and Pacific peoples' rates remaining consistently lower.[13] In 2001, there was found to be a high drop-off in breastfeeding rates during the first three months after childbirth, with 65.6 percent fully breastfeeding at 5-6 weeks (55 percent Maori; 57 percent Pacific; 68 percent European and other) and 50.9 percent by three months (41 percent Maori; 43 percent Pacific; 56 percent European and other). While the overall percentage of New Zealand infants was not available, at four to six months, 13 percent of Maori, 17 percent of Pacific and 21 percent of European and other were fully breastfed. Note that there are differences between countries with regard to definitions of breastfeeding.[14] The Ministry's report also identified that the decision to breastfeed is strongly influenced by a range of societal and environmental factors.

The drop-off in breastfeeding rates is in sharp contrast with international and national recommendations. The World Health Organization and the New Zealand Ministry of Health advise exclusive breastfeeding (i.e. breast milk without any additional fluid or food) for the first six months of a child's life and continued breastfeeding for up to two

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[10] Statistics obtained from the Ministry of Education.

[11] Department of Labour and NACEW. (1998). *Childcare, families and work – The New Zealand childcare survey 1998: A survey of early childhood education and care arrangements for children.* Wellington: Dept of Labour and NACEW.

[12] Ministry of Health (2000). *Food and nutrition guidelines for healthy infants and toddlers (aged 0 – 2 years). A background paper.* Accessed at http://www.moh.govt.nz (date of access 20/1/03).

[13] Ministry of Health. (2002). Ibid.

[14] The New Zealand Ministry of Health adopted the following standard breastfeeding definitions in 1991.

- Exclusive – where the infant is feed on breastmilk only with no added water, formula or other liquid or solid food.
- Fully – the infant has taken breastmilk only and no other liquids or solids except a minimal amount of water or prescribed medicines in the past 48 hours.
- Partial – the infant has taken some breastmilk and some infant formula or other solid food in the past 48 hours.
- Artificial – the infant has had no breastmilk but has had alternative liquid such as infant formula, with or without solid food, in the past 48 hours.

years or beyond.[15] It is essential that childcare policy and practice ensure that all mothers, including those who are employed or studying, are offered the opportunity of meeting these best practice recommendations.

The benefits of breastfeeding for mothers and for children are significant and wide-ranging. According to a 1997 policy statement on breastfeeding and the use of human milk released by the American Academy of Pediatrics (AAP), breastfeeding has important health, nutritional, immunologic, developmental, psychological, social, economic and environmental benefits.[16] It outlines research among infants in middle class populations in developed countries that shows that breastfeeding decreases the incidence and/or severity of diarrhea, lower respiratory tract infection, otitis media, bacteremia, bacterial meningitis, urinary tract infection, and necrotizing enterocolitis. It also identified the protective effect of human milk against sudden infant death syndrome (SIDS), Type I diabetes mellitus, Crohn's disease, lymphoma, ulcerative colitis, and allergic diseases. Breastfeeding is also associated with enhanced cognitive development in infants.[17] Research also shows that there are significant health risks as well as individual, familial and societal costs associated with artificial infant feeding or early weaning from breastmilk.[18]

The AAP's 1997 global epidemiologic review also noted a range of studies that found that breastfeeding was beneficial to women's health and that not breastfeeding increased the risk of postpartum hemorrhage, premenopausal breast cancer, ovarian cancer, osteoporosis and endometrial cancer.[19] Breastfeeding also offers mothers a range of other less easily quantifiable advantages in terms of their own well-being and self-esteem, as well as enhanced bonding with their offspring.[20] In relation to paid employment, both mothers and fathers, or other partners, may benefit if the infant is breastfed as breastfed infants are less likely to be excluded from child care on account of illness.[21]

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[15] Ministry of Health. (2002). Ibid; World Health Organization. (2002). *Infant and young child nutrition*. World Health Organization, Fifty-Fifth World Health Assembly 16 April 2002.

[16] American Academy of Pediatrics. (1997). Breastfeeding and the use of human milk. *Pediatrics, 100*, 1035-1039.

[17] Angelsen, N.K., Vik, T., Jacobsen, G. & Bakketeig, L.S. (2001). Breast feeding and cognitive development at age 1 and 5 years. *Archives of Diseases in Childhood, 85*: 183-188; Horwood, J. & Fergusson, D. (1998). "Breast-feeding and later cognitive and academic outcomes." *Pediatrics, 101:* e9; Horwood, L.J., Darlow, B.A. & Mogridge, N. (2001). Breast milk feeding and cognitive ability at 7-8 years.. *Archives of Disease in Childhood. Foetal and Neonatal Edition, 84,* F23-7; Morley, R., Cole, T.J., Powell, R. & Lucas, A. (1988). Mother's choice to provide breast milk and developmental outcome. *Archives of Disease in Childhood, 63* (11): 1382-5; See also review in Bartle, C. (2002). Breast milk, breastfeeding and the developing brain. *Childrenz Issues, 6* (2): 39 – 43.

[18] Ball, T.M. & Wright, A.L. (1999). "Health care costs of formula-feeding in the first year of life." *Pediatrics 103:* 870-876; Walker, M. (1993). "A Fresh Look at the Risks of Artificial Infant Feeding." *Journal of Human Lactation 9*(2): 91-106.

[19] American Academy of Pediatrics. (1997). Ibid.

[20] Labbok, M. (2001). Effects of breastfeeding on the mother. *Pediatric Clinics of North America 48*(1): 143-158.

[21] Jones, E.G. & Matheny, R.J. (1993). Relationship between infant feeding and exclusion rate from child care because of illness. *Journal of the American Dietetic Association 93*(7): 809-811.

There is also a considerable medical literature on childcare as a risk factor for infectious illness, including respiratory illness, otitis media and gastrointestinal disease.[22] [23] [24] Breastfeeding plays a potentially important role in childcare settings in reducing the severity, incidence and duration of infectious illness. This is an area, however, that has received relatively little attention in the New Zealand context.[25] For instance, Duffy et al (1997) found that breastfeeding, even for periods as short as three months, reduces the risk of otitis media (middle ear infection) among infants in day care.[26] This association was most strong among infants who were breastfed exclusively and for longer durations. The implications of this are potentially serious. While single episodes of otitis media usually have a good prognosis, repeated episodes may lead to conductive hearing loss in early childhood. This may, in turn, result in some forms of learning impairment such as poor reading and language development skills and, consequently, reduced levels of educational attainment.[27] In economic terms, otitis media can have a major impact at the family level, including direct medical costs for the ill child as well as indirect costs for parents of missed days at work or obtaining alternative care.[28] Moreover, at the societal level, the costs are potentially high, given that language and educational skills are the fundamental building blocks for high levels of "human capital". The Government's strategic plan for early , Nga Huarahi Arataki[29] is aimed at improving learning outcomes for children, especially for Maori and Pacifika children, and developing breastfeeding-friendly policies and practice would support this aim.

In 2002, the Ministry of Health recommended the following New Zealand breastfeeding targets:

- To increase the breastfeeding (exclusive and fully) rate at six weeks to 74 percent by 2005, and 90 percent by 2010.
- To increase the breastfeeding (exclusive and fully) rate at three months to 57 percent by 2005, and 70 percent by 2010.
- To increase the breastfeeding (exclusive and fully) rate at six months to 21 percent by 2005, and 27 percent by 2010.

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[22] For example, Forssell, G., Hakansson, A. &. Mansson, N.O. (2001). Risk factors for respiratory tract infections in children aged 2-5 years. *Scandinavian Journal of Primary Health Care 19(2):* 122-125; Matson, D.O. (1994). Viral gastroenteritis in day-care settings: Epidemiology and new developments. *Pediatrics*, 94(6): 999-100; McCutcheon, H. & Fitzgerald, M. (2001)."The public health problem of acute respiratory illness in childcare. *Journal of Clinical Nursing 10(3):* 305-310; Wald, E.R., Dashefsky, B., Byers, C., Guerra, N. & Taylor, F. (1998).Frequency and severity of infections in day care. *The Journal of Pediatrics, 112*(4): 540-6.

[23] Review in Galtry, J. (2002). (2002). Child health: An underplayed variable in parental leave and early childhood education policy debates? *Community, Work & Family 5(3): 257-278*.

[24] Bedford, M. (2001). Perceptions of communicable disease issues in New Zealand early childhood centres. *NZ Research in Early Childhood Education Journal, 4*, 73- 102.

[25] Review in Galtry, J. & Callister, P. (1995). Birth and the early months: Parental leave and paid work. In P. Callister & V.N. Podmore (Eds.) *Striking a balance: Families, work and early childhood education* (pp. 13 – 66). Wellington: NZCER.

[26] Duffy, L.C., Faden, H., Wasielewski, R., Wolf, J. & Krystofik, D. (1997). Exclusive breastfeeding protects against bacterial colonization and day care exposure to otitis media. *Pediatrics, 100*(4): E7.

[27] Review in Galtry, 2003. Ibid.

[28] Schwartz, B., Giebink, G.S., Henderson, F.W., Reichler, M.R., Jereb, J. & Collet, J.P. (1994). Respiratory infections in day care. *Pediatrics, 94*(6): 1018-1020.

[29] Ministry of Education (2002). *Pathways to the Future: Nga huarahi Arataki.* Wellington: Ministry of Education.

The development of breastfeeding-friendly early childhood education services would support the attainment of these targets. Parents would be less likely to consider the introduction of breastmilk substitutes if they knew they could continue to breastfeed and engage in paid work or study. The number of infants in childcare services at six weeks is negligible, and while data on the number of older infants in childcare is not available it is more common for infants to be placed in childcare from three months.

Given the evidence on the importance of breastfeeding and breastmilk mothers must be supported to breastfeed in line with "best practice" recommendations. As Plunket Society General Manager Angela Baldwin (2002) explains:

> *Breastfeeding isn't always physically easy and it isn't always convenient, but in an environment that is family-friendly and with the support of others, it is much more likely the difficulties that arise can be overcome. The more we offer our support, as a society, the more we will see the far-reaching benefits of breastfeeding.*[30]

The international literature indicates that supportive childcare arrangements are of key importance in enabling women to combine breastfeeding and paid work[31]. There is a lack of New Zealand research looking at how breastfeeding can be supported by childcare centres. The aim of the present study was to highlight some case studies of the types of support provided for breastfeeding in New Zealand childcare settings and to outline an initial set of guidelines for breastfeeding support in childcare. These preliminary guidelines were developed from case studies of two childcare centres that were already supporting breastfeeding, and consideration of international and national guidelines for breastfeeding.

Method

Sample

Centre Selection and Description

Initially a general call for information on how early childhood centres supported breastfeeding was placed in the electronic newsletter of the New Zealand Early Childhood Research Network. From the responses received two early childhood centres that were interested in making further efforts to support breastfeeding were identified and both of these centres met the criteria of providing childcare for mothers in employment or studying. The centres happened to have strong reputations for quality in their communities, and were relatively well-funded centres with stable staff.

Centre A operated for children aged two and under, and was attached to a tertiary institution in the lower North Island. The hours of operation were 8.00am to 6.15pm. Families provided children's food and drinks. There was a ratio of one staff member to three infants (under twelve months olds) and one staff member to four toddlers. The centre was licensed with the Ministry of Education for up to 25 children at any one time and had approximately 45 enrolled. Attendance was on a pre-booked hourly basis. The

[30] Baldwin, A. (2002). Kiwi breastfeeding plateau set to change. Media Release by the Royal New Zealand Plunket Society Inc. 20 November 2002.
[31] Galtry, J. & Callister, P. (1995). Ibid.

under-ones were cared for in a separate room area to the toddlers. The centre had a waiting list and parents often enrolled before their child was born.

Centre B operated for children aged under five years and was located in the grounds of an upper North Island school in a largely industrial and urban housing area. It catered mainly for the children of parents in employment, including some children of the school staff. The hours of operation were 7.30am to 5.30pm. Children's meals were fully catered for and staff made up children's drinks, including EBM and infant formula (although at the time of the research there were no infants being fed EBM). It was licensed for a total of 33 children, including nine under two-year-old children. There was a ratio of one staff member to three under-twos. Up to 14 under-twos were enrolled. The centre preferred children to attend for a minimum of two full days a week. The under-twos had their own play area within the main centre, separated by low barriers and visible within the larger centre. The centre had a waiting list, and parents of infants were advised to enroll before their child was born.

Informants

The informants were seven staff and nine parents, including four staff and five parents from Centre A and three staff and four parents from Centre B. The supervisor/manager of each centre was asked to provide parents and staff with a copy of the Information Sheet about the study and ask key staff and three to five parents who were breastfeeding or had recently stopped breastfeeding if they were interested in participating in the study.

The New Zealand Association for Research in Education Code of Ethics was followed in carrying out this study. All participants gave their informed consent and had the right to withdraw from the study at any time. It was agreed that no identifying information would be included in the written report of the study.

Staff informants from Centre A were a co-supervisor (responsible for the under-ones and the centre overall), the assistant supervisor (responsible for the over-ones), and two teachers working in the under-ones area. Staff informants from Centre B were the manager (responsible for the centre overall), the supervisor (who was responsible for the over-twos), and the assistant supervisor (who was responsible for the under-twos).

Table 1 below provides background details of parents' age, children's ethnicity, children's age, the age at which children started attending childcare and their feeding history. Note that children of most of the parent informants at Centre A continued to receive breastmilk after enroling in childcare whereas the children of parent informants at Centre B received breastmilk at home only. This difference appeared to be related, at least in part, to the number of hours that parents were using childcare, with Centre A children attending on an hourly basis while their parents were engaged in study and Centre B children attending two or more days a week so their parents could be in paid employment.

Table 1: Background Information about Parent Informants and Children

	Parents' Age	Child Ethnicity	Child Ag Now	Age Whe Started	Feeding
Centre A					
Parent 1	36	New Zealand European	1 year	4.6 mths	From 6 weeks infant formula introduced and used in combination with breast-milk. Fed formula at centre and breastfed at home.
Parent 2	31	New Zealand European	9 mths	8 weeks	Expressed breastmilk given at the centre when mother not available. Mother breastfeeds at centre.
Parent 3	40	New Zealand European	10 mths	6 weeks	Formula at centre. Breastfed at home.
Parent 4	37	New Zealand European	2 years	4 mths	Breastfed at centre as an infant. Continues to have a nightly breastfeed at home.
Parent 5	38	New Zealand European	11 mths	5 mths	Breastfed and expressed breastmilk given at centre until infant was 6mths old when the infant was weaned. Formula was then introduced.
Centre B					
Parent 6	38	Samoan	9 mths	3 mths	Formula at centre. Breastfed at home
Parent 7	28	New Zealand Maori/ European/ Samoan	3 years	2 years	Cup and food that other children have at centre. Demand breastfeeding at home.
Parent 8	27	New Zealand European	2 years	8 mths	Formula at centre. Breastfed at home. Now fully weaned.
Parent 9	32	New Zealand European	8.6 mths	5.6 mths	Formula at centre. Until 6 months child was breastfed at home.

Procedure

The case studies involved looking at existing policies and provisions, with a focus on experiences, successes, and any difficulties encountered. Each centre was visited by the researcher who informally observed feeding practices, reviewed written policies, and noted centre provisions and ways that breastfeeding mothers and their children were supported.

Informants were interviewed using a list of questions derived from a previous review of the professional and research literature on breastfeeding and childcare. A copy of the interview schedules for the person responsible in each centre (the centre manager/supervisor), staff, and parents is provided in the Appendices to this report. Copies of the interview schedules, along with an Information Sheet about the study and a Consent Form were given to the supervisor/manager of each centre to distribute before the researcher's visit. The interviews with supervisors/managers took approximately one hour, and with parents and staff between 20 to 40 minutes. All interviews were tape-recorded and later transcribed. The audio-recordings were wiped after transcription and identifying information was removed from the transcripts.

The following steps were taken in data analysis and these are reflected in the order in which the findings are presented in this report. First, thumbnail sketches of the ways in which breastfeeding was supported in each centre were prepared and reviewed by the centre supervisors or managers. Second, the data for both centres were analysed to identify what was most important in the context of childcare centres for the support of breastfeeding mothers and breastfed children. Finally, the data were re-examined for issues that seemed to be of relevance to childcare centres in general who aimed to support breastfeeding. Direct quotations from centre informants were selected to illustrate the findings presented below. The quotations were selected on the basis of being able to best summarise, explain, or further clarify the findings.

Results and Discussion

Centre Profiles

Centre A

Centre A clearly supported breastfeeding but did not have any written policies. As the supervisor said "we go with the flow, with what the mother wishes and what the child requires".

Breastfeeding was supported in the centre through the following provisions and practices:

1. Providing space (a parents' room) for parents to breastfeed their child.

2. Asking parents to phone the centre to check on their child's well-being and for parent-teacher communication regarding the infant's breastfeeding schedules, including the feeding of expressed breastmilk.

   We suggest that they ring in every two or three hours. Once parents get into the routine of ringing in they are fine with it. It is just so that if we have forgotten to ask something when they leave, we can check up, or if they have forgotten to ask or tell us something we can talk it over on the phone. If baby had a quick breastfeed at home but mum feels it hasn't been a good feed, they might ring back in half hour and pop back. (S1)

3. Feeding children according to parent's requirements, with an emphasis on encouraging and supporting breastfeeding.

   We ask for bottles of breastmilk to be made up at home, with the child's name written on them. We have pens on the bench if the child's name comes off (S1).

4. Assisting parents to meet their child's needs for optimal nutrition and good health, through making parents aware that the centre encouraged and supported breastfeeding[32].

[32] Note that equipment for feeding EBM only needs to be sterilised for infants under three months When preparing EBM for infants and young children older than three months, only basic good food-handling techniques are required such as clean hands and clean equipment. It is important not to discourage mothers from expressing breastmilk or centres from feeding infants EBM through requiring unnecessary and overly complicated storage and handling procedures.

Sometimes if a parent is not sure how much milk to bring, they can bring an empty sterilized bottle and we can tip some in so we are not reheating. (S1)

5. Having a fridge for the storage of containers of EBM and hot tap water for thawing and warming EBM in both the under-ones and the toddlers' areas of the centre.

6. Providing toys, reading material, sofas and cushions in the parents' room.

   There were toys around if I had a toddler with me. There was plenty of space. It was frequented by other parents and designed for parents. (P1)

7. Providing space (a kitchenette) for parents to heat food for older infants, make themselves a hot drink or get a glass of water.

8. Providing space (a study room) for parents to work in, allowing them to stay at the centre for demand breastfeeding (i.e. feeding in accordance with the infant's desire) and to be available.

Centre B

Centre B was interested in identifying ways to better support breastfeeding within the childcare setting, including through the development of a specific policy. Within the centre's existing policy on Feeding Children brief reference was already made to breastfeeding, "Breastfeeding mothers are encouraged to feed their children in the centre if they wish. The centre manager will ensure that a private and quiet place is made available for the parent to use, should they wish it".

Staff interest in the research project prompted the development of a written policy specific to breastfeeding. According to the manager the policy was developed "mainly when I knew you (the researcher) were coming".

I suddenly looked at the whole feeding policy. In amongst the centre's written feeding policy there is a little bit about mums who want to breastfeed their babies being able to have privacy. The feeding policy is about the type of food that is given to the children and that they sit at tables, and we fit into the Ministry requirements for feeding. The breastfeeding policy sits alongside the feeding policy.

** These comments demonstrate the need for general policies on infant feeding and nutrition to be examined and developed in close conjunction with a specific breastfeeding policy. While including support for breastfeeding within the centre's feeding policy is an important first step, all centres need to have a comprehensive policy on breastfeeding that outlines the way in which breastfeeding is protected, promoted and supported within the particular centre. This should include information on the type of support provided for breastfeeding mothers, as well as specific provisions, practices and staff awareness/professional development for the storage and handling of EBM.

A person on the management committee asked me why we had to have a breastfeeding policy. I said that I think it is important to have one because then all staff and all committee know that our policy is to support mums who are going back to work and want to breastfeed their babies. That there is something in place so that they feel comfortable and we feel comfortable. I said to them, you've got to allow people to make choices.

The staff working with the under-twos children were asked by the manager to research and draft a policy. The Internet provided their main source of information. Written material obtained from a Plunket nurse was found to be helpful, especially in providing details about health recommendations for the storage and heating of breastmilk.

The draft policy was presented to and discussed at a meeting of all staff. Full staff agreement with the policy was considered by the manager to be critical for successful implementation.

> *As a staff team they have to agree on the policy. If they don't agree the policy will fall down. I can't sit down and write a policy and give it to them and say this is what it is going to say. They have to be involved in its development and be comfortable with it. If any staff member is anti any bit of it, or doesn't want breastfeeding it would be very hard to implement.*

The manager encouraged and embraced staff discussion and debate on the policy.

> *In the policy we had "breastfeeding is the natural way to feed babies". Somebody wrote down "is the best way to feed babies". Someone else had a problem with that and said some people may not see it that way. I said "how would you explain it to children? Some go and see sheep feeding their lambs and so you talk about that when you are talking with the over-2s about it. I've heard a child say "My dog feeds my puppies just like my mummy fed me". We decided to use "natural" instead of "best" as the correct word to use. "Best" would bring up value judgements.*

After staff discussion and approval the manager presented the policy to the management committee (which included employer, parent, and staff representatives). At a meeting of the committee the policy was approved with the exception of a statement indicating that the centre would display a notice on the noticeboard saying "breastfeeding mums welcome and breastfeeding babies".

> *I said that I felt it was really nice if mums came in to enrol their babies who weren't born yet and they saw that we were really happy for breastfeeding. From the notice conversation could come about breastfeeding. Parents often stand by the notice board while they are waiting for me or they are having a look around. But no the management committee wouldn't allow it to go through. Their problem was that the notice was visible. It was okay for me to include in the Welcome Booklet, which is a handout we give to parents when they come to look at the centre when deciding on a centre for their child. I was disappointed. I thought hang on, this is the year 2002 we are not in the 30s or 40s.*

** This centre was clearly making strong efforts to support breastfeeding. However, some of the preceding statements highlight the tension for centres between the desire to support parents' wishes and their potential role in promoting and supporting optimal infant nutrition through breastfeeding. There is a clear need for a set of consistent, evidence-based national guidelines for the establishment of breastfeeding-friendly childcare in New Zealand so that individual centres are not faced with the task of researching and developing these policies in isolation.

The policy for breastfeeding at Centre B is shown in Diagram 1 below.

Diagram 1: Centre B's Policy on Breastfeeding[33]

Breastfeeding Policy

Aim:

To support the practice of breastfeeding by providing facilities and procedures for breastfeeding, and safe storage of expressed breastmilk.

To promote the health of the baby and mother, to strengthen the bond between them, easing the mother's transition back to work.

Guidelines:

- Staff will provide a private area, if required, for parents to breastfeed e.g. staff room.
- Staff will give positive support and accommodate mothers breastfeeding on demand. Mothers are welcome to come into the centre at any time to feed their baby.
- Centre will provide safe storage and handling of expressed milk as per the attached guidelines.
- Centre will note in the Centre Information and Welcome Booklet that breastfeeding babies are welcome in the centre, and offer educational materials for parents that include accurate and practical information.
- The centre will include fathers and other supportive relatives and partners in decisions related to the baby's care, and encourage them to feel good about the role they play in supporting continued breastfeeding.
- Staff will explain to preschoolers that breastfeeding is the natural way to feed babies, although some mothers may prefer to bottle feed.

Provisions and practices that supported breastfeeding in Centre B were as follows:

1. Informing parents during the enrolment interview that breastfeeding was encouraged and supported.

2. Developing a written policy for breastfeeding support to be shown to all new parents.

3. Welcoming parents to phone the centre and visit their child during work breaks, including for breastfeeding purposes.

   Support from the staff can be important. Just to say feel free to ring us if you feel you need to come in and give a feed. (S5)

4. Demonstrating openness and increasing staff awareness about optimal infant nutrition through breastfeeding.

[33] This represents a good initial policy for breastfeeding support. Some minor changes might include the need for a breastfeeding space to be readily available and not only "if required". With regard to infant feeding methods, it would also be more appropriate to substitute "some mothers may prefer to bottle feed" with "some mothers may decide not to breastfeed" (as EBM is also often commonly fed by bottle).

5. Attempting to lessen the stress for working mothers wishing to continue breastfeeding.

   We do the babies bottles here because then we have always got milk on hand…With breastmilk we have always kept a frozen one (container of EBM) in the freezer in case anything happens, mum's late, we run out or something like that. (S5)

6. Making the staff room available for breastfeeding mothers and the manager's office when the staff room was in use.

7. Providing cushions on the floor of the under-twos children's area for breastfeeding mothers to sit on.

8. Having a fridge for the storage of EBM, a freezer available for frozen EBM, and equipment to sterilise feeding utensils and bottles for infants under three months.

   We've got a separate fridge for the milk and bottles, and the staff lunches – located in the resource room. The freezer in the kitchen is more reliable, than the icebox in the fridge, for the frozen expressed breastmilk. (S5)

9. Providing a water cooler and offering breastfeeding mothers a glass of water.

Factors Important for Supporting Breastfeeding

An analysis of the case study data highlighted several factors that were important for supporting breastfeeding:

1. An openness and willingness to learn more about the necessary requirements for supporting breastfeeding in the childcare setting, including correct techniques for storing, handling and feeding EBM and appropriate complementary feeding.

2. A written breastfeeding policy outlining support for breastfeeding and breastmilk expression.

3. An awareness among supervisors and staff of their educative role as early childhood education and development specialists. Where appropriate, advising parents about optimal infant nutrition, including ways to continue breastfeeding.

4. Providing information for parents on accessing health professionals and breastfeeding specialists.

   We suggest help they might need. If they are unsure about anything I always say have you checked with your G.P.? G.P.s are free for under 5. G.P.s are the health professionals – not me. (Centre A, S2)

   I contacted Plunket and she sent me a selection of pamphlets, which will be really good for sharing with parents. (Centre B, S5)

5. An emphasis on communication between families and staff. This includes written and verbal communication about the centre's policies and provisions for breastfeeding, including for storing and preparing EBM, as well as the parents' expectations regarding infant feeding, including breastfeeding schedules.

You feel successful when the parents will tell us what their needs are. (Centre A, S2)

I write comments in a book before I leave. (Centre A, P2)

We always had a five-minute break halfway through the lecture and I would ring crèche and see how she was, so I could always pop back if she was getting stressed. Here the staff ask you to ring and check. (Centre A, P4)

There was a time when my boy had colic. He came the first week and just cried and cried to the point where I thought maybe I need to pull him out of the centre. So I spoke to (assistant supervisor's name) about it and said, "look I've got these concerns. I'm thinking of pulling him out". And I got a call from (supervisor's name) and she said, "look we can help. We need to sit down and talk about it and we can help you". (The assistant supervisor) had taken the time to listen and she did something about it in talking with (the supervisor). (Centre B, P6)

6. Understanding and meeting family requests about infant feeding and identifying ways in which staff could better support and encourage the breastfeeding relationship.

   It is important for us to know what parents want. I know, I know about myself. But every mother is different. (Centre A, S4)

   The teachers accept how the mother wants it to go. Whether she's relaxed about it, or she'll be back at two o'clock and keep the baby awake, or don't feed the baby until I get back because I want to feed her. Different things will be important for different people. (Centre A, P5)

   Occasionally I've brought in two bags of expressed milk because I haven't made enough in each bag and I've asked them to add it together. I trust that they will do that. If I didn't trust that they would be following instructions then I would be thinking about leaving formula because that is what a lot of the other kids are having. (Centre A, P2)

7. Providing reassurance to mothers experiencing difficulties with breastfeeding, and where appropriate, encouraging them to take extra time to breastfeed if they are experiencing breastfeeding difficulties.

   I'd say "I'm doing this? What do you think? Do other kids do it? Do other parents do it?" Just making sure that I'm on the right track and was it working for other parents. So if it was working for other parents then it would work for me. (Centre B, P6)

   We always have time if they want to have a little chat and run things past us, or vice versa. (Centre A, S1)

8. A physical and attitudinal environment conducive to mothers wanting to stay in the centre and feeling comfortable about breastfeeding.

   Other mums breastfeeding at the centre made it feel normal and that it was an accepted thing to do. (Centre A, P1).

When I first started coming here, there were often two or three of us sitting in there breastfeeding away, getting each other glasses of water. It was very easy, natural and comfortable. (Centre A, P4)

The parents' room is dowdy. Its sometimes messy. But its sunny. (Centre A, P2)

They have got the parents' room upstairs and that makes it easy to go up there and feed him and have some quiet time. (Centre A, P5)

9. A non-judgmental and supportive attitude towards families that make or have already made the decision not to breastfeed or to continue breastfeeding, including knowledge and awareness of correct methods of preparing breastmilk substitutes.

(When a mother is having difficulties with breastfeeding) … We are impartial – we stay neutral – we don't encourage and we don't discourage breastfeeding. It's the mum's choice. It is their child. They have chosen to study. They have chosen to continue breastfeeding because we support breastfeeding here. We go with the flow. It's their choice. Usually parents will come and tell us and say "we are not feeding now", or "we are only feeding morning and night". We wait for parents to tell us. We don't argue. They will come along and say "it's not breastmilk in the bottle it's formula". We wait for them. (Centre A, S1)

They don't make any judgement about what you are doing. They go with what the parents want and they do the best that they can for that child. (Centre A, P2)

**A non-judgmental approach about parental infant feeding choices needs to be balanced against parents' needs for informed choice about best practice infant nutrition. Early childhood centre employers and staff have an important role to play with regard to promoting and supporting optimal child health and development, including through encouragement and support of breastfeeding in the child care setting. Of course, where mothers have clearly made a firm and informed decision to wean the infant childcare staff should support this.

Issues and Challenges for Childcare Services

The Canadian Child Care Federation (2002) makes the point that "balancing the various needs and demands of mother, baby and the other children in care is a juggling act that calls for flexibility".[34] Issues that arose for the centres in the present study show that achieving a "balance" is a very complex undertaking, which requires flexibility as well as an open-mind, knowledge, understanding, and financial and physical resources.

The following were identified as issues for the childcare providers and these are discussed below:

- Promotion of the centre as breastfeeding friendly.
- Staff knowledge, support, and professional development opportunities.
- Recognition that breastfed infants have different needs from babies that are fed on breastmilk substitutes.
- Different cultural understandings and practices about appropriate infant feeding practices.

[34] Canadian Child Care Federation (2002). Ibid.

- Attitudes towards breastfeeding older children.
- Booking arrangements and hours of attendance.
- Meeting children's needs for optimal nutrition through breastfeeding and timely feeding and mothers' needs for childcare.
- Providing appropriate facilities and equipment to support breastfeeding and the storage, handling and preparation of EBM.
- Providing a choice of spaces in the centre for breastfeeding.

Promoting the Centre as Breastfeeding-Friendly

Awareness of childcare centres being breastfeeding-friendly is central to the decision of parents to continue breastfeeding upon returning to work or engaging in study.[35] However, centre managers and staff may not think to communicate this to families when they are visiting or upon enrolment. This may also possibly be because there is a prevalent perception in many centres that formula feeding represents the norm, with breastfeeding seen merely as a possible alternative.

> *I didn't know the parents' room was available when I enrolled. Having the room available so that I can feed him before or after the session is very good for breastfeeding continuation.* (Centre A, P2)

> *There was nothing mentioned about breastfeeding at any of the centres I went around and visited before enroling here. Not even that we have a private room for you.* (Centre B, P8)

> *If I had known that you could leave bottles, I might have done things differently. When you come in to do the enrolment interview, maybe they could have a little talk with you, "Are you breastfeeding?" "Would you like to keep breastfeeding?". I think that would have been great. I probably would have come in not too early but a little earlier. I was so lucky I had support, but if I didn't have that I would have had to wean her off and go to work, not knowing if breastfeeding would be supported in childcare. If you know that a centre supports breastfeeding and you had to go to work, you would think "that's cool I can carry on breastfeeding".* (Centre B, P7)

It seems that whether centres support breastfeeding is not usually considered to be an issue for childcare quality. However, because breastfeeding is a critical component of optimal child health and development, developing policies and practices for centres represents a quality issue and needs to be stated as such in documentation and publicity material on childcare provisions.

> *You know how you can look up information about what to ask about childcare centres, and I never thought one of the questions could be "how do you feel about breastfeeding?". So I was going around all these centres asking all the proper questions and I never asked about the breastfeeding. I just thought they didn't do that or that you fitted it in when you could. If I had another child I would be asking that question.* (Centre B, P7)

[35] Review in Galtry & Callister (1995): Ibid.

Staff Knowledge, Support and Professional Development

A mother's decision on workforce participation may depend on whether she is reassured that the caregiver or childcare centre staff understand the needs of a breastfed baby. While staff may have some knowledge of infant feeding and infant care, their training may be dated or may not include the specific area of breastfeeding. In the Australian situation, various criteria have been identified as important by breastfeeding mothers when choosing a caregiver.[36] These included: how the caregiver felt about breastfeeding; whether they possessed any breastfeeding knowledge; whether they had breastfed themselves; whether they were receptive to learning more about breastfeeding; and whether they were comfortable with mothers breastfeeding in front of them.[37]

Staff knowledge about breastfeeding, the support they are given, and opportunities for professional development should be considered key components in developing breastfeeding-friendly childcare. For instance, it is important that staff are aware that it is quite common for mothers to experience breastfeeding difficulties in the early months following childbirth when milk supply is being established. This is because the production of breastmilk is based on the physiological process of "demand and supply", whereby frequent and effective suckling stimulates breastmilk production.[38] Many mothers also experience "transient breastfeeding crises" in the early months, when infants undergo growth spurts and more time may need to be devoted to breastfeeding.[39]

In the absence of consistent, evidence-based guidelines on breastfeeding for early childhood centres, there also appears to be a prevalent assumption that breastfed infants require supplementation with infant formula and/or bottled water. This is not supported by evidence-based research and, in fact, this practice tends to adversely affect breastmilk production.[40] With greater knowledge of breastfeeding, childcare staff may be able to advise and support mothers, including encouraging them to devote more time to breastfeeding wherever possible or discuss possible referral to a breastfeeding specialist.

There is also the need for early childhood education centre employees to be trained, as a required aspect of professional development, in the skills and techniques necessary for supporting breastfeeding and the handling of EBM. For instance, the storing and warming of EBM is quite different from that of infant formula.

The case-study evidence suggests that staff obtained knowledge about breastfeeding mainly through informal means, that is through their own experiences as mothers and through their conversations with parents.

> *Sometimes the mums talk amongst themselves, and they might say I heard da da da, and the next moment another mum might join in the conversation, and then*

[36] Personal communication with Dr. Julie Smith, March 2003. Ibid.
[37] Nursing Mothers' Association of Australia. (2000). *Breastfeeding Women and Work.* Melbourne.
[38] Riordan, J. & Auerbach, K.G. (1999). *Breastfeeding and human lactation* (second edition), (pp. 577-600). Sudbury, MA., Jones and Bartlett.
[39] Auerbach, K.G. & Guss, E. (1984). Maternal employment and breastfeeding: A study of 567 women's experiences. *American Journal of Diseases of Children* 138: 958-960.
[40] World Health Organization. (2002). Ibid.

> *you leave them talking. They are mums, and they are breastfeeding, and they help each other. We pick up a lot of information from the mums.* (Centre A, S1)

> *We didn't know anything about the storage of milk until a mum came along who wanted baby fed here. It is important to know all the information because parents may not know it all as well.* (Centre B, S6)

It seems important that employers consider previous training in child health as a criteria for job applicants and ensure that at least one member of staff has a child health qualification.

> *I learnt as a Karitane Nurse years ago working with mums who were in for a week or two to put baby to the breast. Some babies are more difficult than others and getting established doesn't come easily to all mums. My Karitane background helps when I'm talking with the Mums at the crèche. I can make suggestions if they have sore breasts or whatever.* (Centre A, S3)

Books and written materials about breastfeeding should be available for staff in centres. Knowing how to access and accessing health professionals to talk with about any problems and to ask questions can help to train staff and assist them in better meeting the needs of breastfeeding mothers, their children and families. Centre A supervisor mentioned that in the past Plunket nurses had regularly called into the centre to check on children and to talk about any concerns with staff and parents. However, Plunket nurses were not available to provide this support now.

Employers and managers can encourage more knowledgeable and experienced staff to provide peer support for less confident and competent staff.

> *Teachers who haven't worked with babies before may not be too sure about how to feed a baby, they may have the head dropped down or not up enough. Its building up confidence and learning how to go with how the baby is feeding that particular day. Some babies may need a bit more winding than other babies.* (Centre A, S1)

Recognition that Breastfed Infants have Different Needs from Babies that are Fed on Breastmilk Substitutes

Closely related to the need for staff knowledge, support and professional development are concerns surrounding recognition and understanding of the needs of breastfeeding mothers and their infants. Breastfed infants tend to have different needs from babies being fed breastmilk substitutes, such as infant formula. For instance, they are likely to have more variable feeding patterns and may need different methods of settling.[41]

> *Sometimes if babies are breastfed to sleep it can make sleeping a bit hard. We comfort and carry those babies around.* (Centre A S1)

It is also important, however, that staff recognise that mothers will often have different beliefs and methods relating to their breastfeeding relationship. Among issues that arose at seminars run for childcare workers by the Nursing Mothers Association of Australia

[41] Riordan, J. & Auerbach, K.G. (1999). Ibid.

was the need for staff to determine other practices and routines, such as the introduction of solids and sleep routines, which supported the breastfeeding relationship.[42]

Cultural Understandings and Differences

Breastfeeding practices, needs, and values vary within communities, cultures and families. A key challenge for childcare services supporting breastfeeding is to show recognition and acceptance of differences in cultural values and practices, thereby assisting mothers to continue breastfeeding and helping them to feel welcome.

Good communication and listening by staff affected how well the needs of breastfeeding mothers and children from different cultures were met.

> *You are learning what is best for them and what is best for their child. We meet a range of mums and a range of cultures.* (Centre A, S2)

Being open to differences in practices and values was important:

> *With sleeping we have to be careful because in some cultures children sleep with them all in one big bed.* (Centre A, S1)

This comment highlights the importance of respecting and valuing different cultural practices, with bedsharing also recommended in at least one study as a strategy to assist breastfeeding practice.[43] This may be particularly relevant where infants are separated from their mothers for much of the day. For instance, "reverse cycle nursing" – where the infant tends to breastfeed more at night – is often common among employed mothers and their infants.[44]

Tact and discretion on the part of staff helped to bridge cultural differences and focus on positive outcomes for mothers and children:

> *Some of our young Pacific mothers want their babies to have their solids before their breastfeed and we explain that they should have the breast first.* (Centre A, S4 – a Pacific Islander)

> *At the age we are taking children, parents from other cultures are often so pleased to come in here and be welcome and have their child in this environment. They share things like "baby is sleeping in our bed". "Well, that's okay that's fine but what can we do to help to get your baby to sleep in our environment?". They will bring in blankets or toys or whatever that their child takes to bed. They are only too pleased to have helped us as well. Sometimes it may be a garment that has the parent's smell on it, or a stretch and grow, or blanket.* (Centre A, S2)

The Samoan and Maori mothers interviewed in the study both stated that staff acceptance of breastfeeding as natural and desirable was culturally important for them:

> *In our Samoan culture it is an accepted thing. It is not a big deal. Whereas in the European culture it is, it has only come back in the last seven years and it is really being pushed. But in the Samoan culture breastfeeding has never been out*

[42] Personal communication with Dr. Julie Smith, March 2003. Ibid.
[43] McKenna, J. Mosko, S. & Richard, C. (1997). Bedsharing Promotes Breastfeeding. Pediatrics *100*(2): 214-219.
[44] Riordan, J. & Auerbach, K.G. (1999). Ibid.

the door. To be accepting of it really is all that is needed, and to be respectful of what the mother has chosen to do. (Centre B, P6)

They could support older children to be breastfed. It's one of my values if my child wants it I will give it to her. In my family it doesn't matter. But here I can be asked "why are you still breastfeeding?". (Centre B, P7)

Different cultural groups have different views on health. Childcare staff need to be aware of and acknowledge the value of these different views. The Ministry of Health (1997)[45] state that childcare staff working with Maori families need to recognise that the health of children and their families cannot be separated and should be viewed together. They need to understand that concerns for the past, present and future are sources of self-esteem for Maori. Pacific peoples share an holistic understanding of well-being and health according to the Ministry of Health. Culture is linked to family and family and culture is linked to mental, spiritual, and physical health and well-being.

While it is important to be aware of possible cultural differences in approaches to infant feeding, it is equally important not to assume and/or romanticize potential differences. An American survey shows that women with higher educational levels are more likely to breastfeed.[46] It is thus important that early childhood centre staff do not necessarily accept the prevalence of formula feeding among particular groups as a form of cultural difference to be supported and encouraged. In many situations infant feeding method may be more reflective of lack of education, support or opportunity. Again, this highlights the importance of all early childhood centre staff in New Zealand being trained to support breastfeeding per se and to recognise that the protection, promotion and support of breastfeeding is an area with its own body of specialist expertise. It is also important that breastfeeding specialists, trainers and educators come from a range of ethnic groups so they are aware of some of the particular concerns and practices within their own communities and can educate early childhood centre staff about these issues.

Breastfeeding Older Children

The World Health Organisation recommends breastfeeding into the second year of life and beyond. New Zealand breastfeeding rates indicate that by four to six months over 40 percent of infants receive no breastmilk.[47] Mothers who continue to breastfeed can experience greater social pressure to stop and may feel uncomfortable about telling early childhood centre staff.

I say "it's bed-time". "Milk first" she says. To be honest I don't tell many people that we are still doing that because we get these looks of horror. It's not that onerous to me. It's like five minutes at the end of the day, and it gives her a lot of pleasure, a lot of comfort. (Centre A, P4)

A staff member also commented:

The mothers of toddlers don't come forth and say they are still breastfeeding. It depends on how comfortable the parent is in telling you and whether they need

[45] Ministry of Health (1997). *Nga Kupu Oranga. Healthy messages. A health and safety resource for early childhood services.* Wellington: Ministry of Health.
[46] Ryan, A. S. (1997). The resurgence of breastfeeding in the United States. *Pediatrics*, *99*, 12.
[47] See the statistics on breastfeeding rates presented in the introduction of this report.

to tell you because of the number of hours the child is attending crèche. (Centre A, S2)

The behaviour and attitudes of managers and staff towards breastfeeding older children may influence what choices mothers make.

> *I thought maybe I could come back at lunch-time and feed her at midday if I put her in full-time. But then because, I thought she was older and the teachers won't really you know… approve. I'm not shy myself where I breastfeed. I went on a trip with her to the beach and because I was there she kept asking and she was making a right racket. When all the kids were sitting down I went right to the back and I felt like I couldn't feed. I had heard a story about one of the mums who wanted to feed her four year old and the teachers didn't really approve of her doing it in front of the other children. So knowing that …* (Centre B, P7)

Attitudes towards and acceptance of breastfeeding older children was one issue to do with child age. A second issue was the effects of mothers breastfeeding at the centre on the breastfed child and other children.

> *It wouldn't affect our older, over twos, seeing a mum breastfeeding in the under-twos area. I don't think they would even notice, but they certainly would in the over twos.* (Centre B, S7*)*

> *One mum sat down on the mat at mat-time with a 4.3 year old. I asked her to come and sit out here. I said it would be more appropriate to do that because the other children had a hundred and one questions. We felt that this was mother needing it and not the child. To me this was her comfort and it was not allowing her child to grow up. If a parent wanted to breastfeed a child of this age I would prefer that she does this at home. I don't think it's appropriate to do in front of other children, to have a great big child latching on. My staff were trying to read a story to the children and this huge sucking was going on and the children were mesmerized, and we got questions about it afterwards. One of the children said "only babies do that. When I was a baby my mummy said I did that. He's big. Why is he doing that?". It's a real dilemma.* (Centre B, S5)

The issues of attitude and effects on children in the programme need to be discussed and worked through by centre employers and staff when developing their breastfeeding policy and examining practices.[48]

Hours of Booking

How the hours of booking are structured in a centre impacts on whether mothers breastfeed at the centre, leave expressed breastmilk or introduce formula. There are two issues to consider here. The first is the total number of hours that the centre prefers parents to book. Centre A with its hourly booking system enabled mothers to leave their children for shorter periods than Centre B where parents booked for whole days.

> *The good thing with this crèche is that they work on an hourly basis. You do need to pre-book the hours. You can say what hours you want, say from 10 in the morning to 2. Most other crèches I looked at you can only do a half-day or a full-day, and that didn't give me the flexibility I wanted. If I wanted to leave her*

[48] Kahn, R.P. (1993). Breastfeeding beyond infancy. In B.K. Rothman (Ed.) *Encyclopedia of childbearing: critical perspectives (*pp. 44-46). Phoenix, Arizona: Oryx.

> *for a full-day I would have had to choose a crèche near work, but that didn't have the space for breastfeeding. Flexibility in hours for crèche is very important unless you get somewhere that is very close to work, or you are into expressing in a big way which takes a lot of energy.* (Centre A, P4)

The second issue is whether flexibility to book "in" and book "out" of the centre more than once in a day is possible. Booking in and out means that parents are not paying childcare fees for the time that they are feeding and looking after their child, in addition to loss of time and wages.

> *My lecture was at 2pm. I would leave home at 11. I would make sure I was here to park in town, catch the cable car up, spend some time doing a breastfeed at the centre and then go off to the two hour lecture. As soon I had given her the breastfeed I would leave, then come back after the lecture and offer her the breast again. It worked for us.* (Centre A, P4)

> *I was working only a couple of minutes up the road, but I don't think I could have personally gone and seen him half way during the day, it would have been too hard. I'm really glad I chose to get him on to formula and not continue breastfeeding.* (Centre B, P8)[49]

> *I introduced the bottle because I was going back to work. She went to childcare on Mondays and Fridays. Going to feed was out of the question because of the time this would take.* (Centre B, P9)

Meeting Children's Needs for Optimal Nutrition and Mothers' Needs for Childcare

Supporting breastfeeding presents a major challenge to childcare staff who can be faced with balancing parents' and children's competing demands and needs. The challenge is to meet both children's needs for timely and optimal nutrition in line with "best practice" health recommendations and mothers' needs for childcare so mothers can engage in employment or study.[50]

Where mothers are exclusively breastfeeding their infants but are unable, for reasons of employment or study, to visit their infants in the childcare setting during the day, they will generally have to express breastmilk either at the centre or at home to be fed to their child as needed. As noted in Stage One of this project[51], the American literature on balancing breastfeeding and employment is dominated by a technological emphasis centering on the use of breast pumps. In both Centres A and B however, parents and staff were generally adverse to the idea of a more technological approach. While for some parents expressing breastmilk at home or at work to bring to the centre was not a problem, for most expressing was not an option because of physical difficulties or

[49] This mother experienced a lot of difficulty establishing breastfeeding and used a nipple shield for eight months. When she went back to her full-time job, she decided that she could not cope with work and breastfeeding. She said "getting into the routine of getting back to work was hard enough without having to express milk."

[50] Galtry & Callister (1995). Ibid.

[51] Galtry, J & Annandale, M. (2003). *Developing breastfeeding-friendly workplaces in New Zealand. Case studies of United States and New Zealand companies and guidelines for supporting breastfeeding in the workplace.* Wellington: Department of Labour, Equal Employment Opportunities Contestable Fund.

personal choice. Issues to do with expressing included views on using a breast pump versus the social-emotional benefits of breastfeeding, and difficulties with milk supply, tiredness, and time.

> *We have a breast pump at home. But getting into the routine of getting back to work was hard enough without having to express milk.* (Centre B, P8)

> *Expressing was very time consuming and I have a very busy job. I'm very lucky to have time to sit down and have my lunch. Also it was tiring.* (Centre B, P9)

> *I never got into expressing. I found that unless I was really overloaded it just never seemed to work.* (Centre A, P4)

> *I don't see the need for a breast pump here. I see that if mums are going to the centre, they should just go in and feed their babies rather than using artificial means to get the milk. Where is all the comfort gone? Where is all the closeness? I see it as going into a milking shed, going on to a machine, and pumping it all off, and then it gets fed to the baby later.* (Centre B, S5)

These comments also mirror the findings of a Canadian study, which suggests that many mothers find the concept and practice of pumping breastmilk distasteful, describing it as "mechanical", "awkward" and "embarrassing".[52]

While there does not currently appear to be widespread support for a technological approach to breastfeeding in New Zealand, there nevertheless need to be professional development programs on breastfeeding aimed at early childhood supervisors and staff that include specific training on correct techniques for storing, handling and feeding EBM. Many mothers leaving EBM for their infants in childcare may be using a breast pump to express milk in the workplace, thus it is important that all early childhood centre staff are accepting of this approach.

Caring for a breastfed infant or young child in the absence of his/her mother was another issue for centres. Challenges experienced by childcare staff with hungry children were:

- Waiting until mothers returned

> *If we feel the baby is needing a feed we will phone the mother. We have to have a parent accessible. A lot of parents have mobile phones. If a child is stressed the best person is the mum. Until the mum arrives we just walk the baby, make sure that everything else is alright and the baby is warm and dry, and then just walk the baby to comfort it.* (Centre A, S3)

An article by Morris (1995)[53] offers a number of different tactics for childcare staff to try, such as distracting with motion, with sound or with toys, and comforting by rubbing or patting back or bottom.

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[52] Morse, J.M. & Bottorff, J.L. (1988). "The emotional experience of breast expression." *Journal of Nurse-Midwifery 33*(4): 165-170.

[53] Morris, S.L. (1995). "Supporting the breastfeeding relationship during childcare: Why is it important?" *Young Children, 5*0(2): 59 – 62.

Conversely, parents of breastfed infants must also recognise the problems faced by childcare workers if the mother cannot make the previously designated feeding time or if the infant is undergoing a growth spurt and requiring more frequent feeds. Due to other demands and responsibilities, early childhood centre employees cannot devote unlimited time to pacifying a hungry infant awaiting its next breastfeed. In the event of the mother's lateness etc, some contingency plan needs to be in place that takes into account both the infant's needs for optimal nutrition and the wider responsibilities of centre employees. A good contingency plan would require that parents always ensure additional amounts of EBM are left with the centre.

- Getting infants to sleep who were used to be being breastfed to sleep

  > *We had one child whose parents wanted him to have a sleep and we didn't discover until about a week on that the mother breastfed him until he fall asleep. She didn't tell us. Luckily we had held him like this (in a nursing position) rather than put him in a cot. It wasn't until I said to her "I know you want him to have a sleep but he isn't settling", that she told us. And I said "okay" and she smiled. It was probably not until she knew us that she felt comfortable to say something.* (Centre A, S2)

- Assisting infants that have been exclusively fed at the breast to take EBM via a bottle or a cup and also solid foods in the case of older infants.

  > *If parents want to wean their baby on to the bottle, it's a matter of giving them lots of encouragement. Working as a team, asking them to try the bottle at home too, sometimes it can help if the dad or someone else can try.* (Centre A, S3)

This quote highlights the prevalent assumption that infants making the transition from exclusive breastfeeding to partial breastfeeding or even complete weaning will necessarily move on to infant formula. Best practice guidelines suggest that, aside from rare exceptions, there is no need for the introduction of breastmilk substitutes, with most infants making a successful transition between exclusive breastfeeding to continued breastfeeding with complementary foods.[54] Where mothers wish to practice "mixed feeding" (a combination of breastmilk *and* breastmilk substitutes, including infant formula) it is also important to remember that a little breastmilk is better than none at all.[55]

Morris (1995) suggests a range of strategies for helping a breastfed baby take EBM, such as offering it before the baby is overly hungry, and using a cup, eyedropper or spoon when an infant will not accept an artificial nipple.

Facilities and Equipment

It is important to consider cost factors facing child care centres wishing to set up facilities and equipment to assist breastfeeding mothers and for the storage of expressed breastmilk. The purchase of such equipment and the cost of establishing and maintaining facilities might be seen as competing with other budget demands in a

[54] Recommendations for complementary feeding promote the gradual introduction of foods such as soft, mashed or pureed foods and a transition to finely chopped foods and then family foods as permitted by the infant's development. See Dewey, K. (2000). Ibid.

[55] Morse, J.M. & Harrison, M.J. (1988). Patterns of Mixed Feeding. *Midwifery 4*: 19-23; Morse, J.M., Harrison, M.J. & Prowse, M. (1986). Minimal breastfeeding. *Journal of Obstetric, Gynecologic and Neonatal Nursing 15*(4): 333-8.

centre. However, the necessary interventions are generally low-cost, involving minimal disruption to the centre. Making the childcare centre breastfeeding-friendly involves looking at budget priorities. For instance, in some situations it might involve purchasing another armchair or fridge and/or freezer, as well as working with families to identify individual needs and any special needs.

> *Years ago we used to let parents bring in ice-cubes of breastmilk and we would just take out so many ice-cubes and put them in the bottle. We can't do that now because we don't have a freezer. (Centre A, S1)*

> *More pillows and comfy chairs with arms to provide support when feeding. I have a disability and have problems with my arms, shoulders and back. (Centre A, P3)*

Space

Parents and staff in the study expressed varying opinions as to where in a centre it is best for mothers to breastfeed. The setting aside of space for mothers to sit and breastfeed was considered important. The varying opinions on where the space should be however indicates the value of providing mothers with a choice of different spaces to help them to feel more comfortable and welcome.

Another important factor that will influence the use of space for breastfeeding purposes depends on the attitudes of both centre staff and other parents to breastfeeding, especially to breastfeeding in public. Again, this requires an emphasis on education and raising staff awareness regarding the normality of breastfeeding practice and its role in providing optimal infant nutrition. In some situations, as noted below, mothers themselves may require greater privacy and this must be respected through the identification of appropriate spaces wherever possible. As the following comments demonstrate, there tends to be great variation among mothers regarding their feelings and attitudes towards breastfeeding.

> *When I'm in a rush I sometimes wonder whether occasionally I could feed downstairs in the crèche. Rather than come upstairs and transfer him out of the crèche space. I would like that, but for other kids who want to be breastfed it may not be good for them to see this. Time is very precious when you have children.* (Centre A, P2)

> *It's best to be separated from the play area, not only for the baby but for yourself. It's easier to concentrate on what you are doing when you are away from distractions from other children.* (Centre A, P5)

> *I don't think that if I was to breastfeed at the centre that I'd want to be put away in a room. But then again that's an individual thing. I would want to be part of the environment.* (Centre B, P6)

> *The best place for feeding is in the babies area. They can get down on the floor with cushions and sit back and watch the other children. But some parents might want to be more private.* (Centre B, S7)

A clear message was given by the study informants that any room set aside for breastfeeding mothers should not be shared with staff or used for other purposes. These

sentiments appeared to be shared by both childcare staff and breastfeeding mothers themselves.

> *I spent some time looking at centres closer to where I worked. There is one centre that is close to work and when I said to them that I was still breastfeeding, they were okay with it, but I would have to do it in the office. There wasn't anywhere else. There was a chair sitting in the corner of the office. When I looked at it, I thought that wasn't going to be very easy. The set up here with the parents' room and the little area where you can get a glass of water and sit on the couch was all just so easy. If I had to take her into an office, like at the centre near my work, I don't know that I would have been that keen to breastfeed. I probably would have tried to wait until we got home.* (Centre A, P4)

> *Ideally it would be nice to have a separate staff room and parents' room. (Parent's name) used to like to come in here to feed, which was fine, except this room is also our staff room. One day we asked her if she would mind doing it in the resource room. … We need to have this little space to get a way from the children for a while for non-contact.* (Centre B, S7*)*

General Discussion

The establishment of breastfeeding-friendly childcare is an important equal employment opportunity concern. It has implications for new mothers in terms of workforce participation, short and long-term economic wellbeing, and opportunities for job advancement and promotion. Alongside its role as a buttress for female workforce participation, support for breastfeeding in the childcare setting is a quality concern for early childhood education services. Furthermore, there is an emerging emphasis on the role of childcare services as a context or setting for health promoting activity. [56] This points to the need to widen the definition of quality in early childhood education to incorporate the increasingly important role of childcare services in health promotion and contributing to the healthy development and wellbeing of children. [57]

Support for breastfeeding in both the employment and childcare setting is a logical extension of the Baby-Friendly Hospital Initiative (BFHI), as well as supporting New Zealand's role as a signatory to the International Code of Marketing of Breastmilk Substitutes. The BFHI was introduced in 1991 by the World Health Organization and UNICEF, and launched in New Zealand in August 2000. Its two main goals are to encourage the uptake of breastfeeding in the maternity setting and to end the practice of distribution of low cost supplies of breastmilk to hospitals and health care settings. In 1983, the New Zealand government adopted the International Code of Marketing of Breastmilk Substitutes and thereby its subsequent Resolutions. The Code's purpose is to "contribute to the provision of safer adequate nutrition for infants, by the protection and promotion of breastfeeding, and by ensuring the proper use of breastmilk substitutes, when these are necessary, on the basis of adequate information and through appropriate marketing and distribution" (Article 1, WHO Code, 1980). The right of children and

[56] Personal communication with Dr Julie Smith, March 2003. Ibid.
[57] Hayden, J. & Mcdonald, J.J. (2000). Ibid.

parents to breastfeeding-friendly childcare is also upheld, directly or indirectly, under various international treaties, as outlined in Stage One of this project.[58]

The need for breastfeeding-friendly childcare can also be linked to the government's strategic goals for early childhood education. The Ministry of Education in its ten-year strategic plan for Government's direction for early childhood education (ECE) includes three main goals, namely to:

- increase participation in quality ECE services
- improve quality of ECE services
- promote collaborative relationships.[59]

The development of breastfeeding-friendly childcare would further each of these objectives. With regard to increased participation in quality early childhood services, the lack of a consistent set of regulations/policies for breastfeeding support within childcare may discourage some parents from enrolling an infant or child that is currently being breastfed. They may be uncertain, in the absence of formal regulations and guidelines, about the level of support for breastfeeding within individual centres and, associated with this, staff awareness and knowledge of breastfeeding. This includes procedures for preparing and feeding expressed breastmilk. With regard to the second objective, there is little doubt that the quality of early childhood services would be improved if centres were to become breastfeeding-friendly, given the importance of breastfeeding for healthy infant development. As for the third goal of promoting collaborative relationships between "ECE services, parent support and development, schools, health and social services", support for breastfeeding-friendly childcare is an important intersectoral concern. It necessitates support and collaboration from both the early childhood sector and the health services.

The Ministry also emphasizes the need for the early childhood sector to be responsive to the needs of Maori and Pacific peoples. In this area too, the development of breastfeeding-friendly child care is important, given increasing research highlighting the significance of breastfeeding for children's health, early cognitive development and learning. As outlined in Stage One of this project, Maori and Pacific infants and young children are more at risk of conditions such as otitis media with effusion (glue ear), which, if repeated, can lead to hearing loss and subsequent learning difficulties.[60]

Support for breastfeeding in childcare centres would underscore governmental goals for improved child health and, more specifically, the attainment of breastfeeding target goals, as earlier outlined.

Conclusion

This small-scale exploratory study suggests that support for breastfeeding within the context of childcare is not well established in New Zealand. Like employer support for

[58] Galtry & Annandale. (2003). Ibid.

[59] Ministry of Education. *Pathways to the Future: Nga Huarahi Arataki. Wellington: Ministry of Education.* Website: http://www.mined.govt.nz (Accessed 12/3/03) Hard copies are available from Customer Services, Learning Media, Box 3293, Wellington.

[60] Public Health Commission. (1995). *Preventing Child Hearing Loss: Guidelines for Public Health Services.* Wellington: New Zealand Public Health Commission.

breastfeeding in the workplace, provisions, policies and practices to encourage and support breastfeeding in early childcare settings appear to be in their infancy and ad hoc. In contrast to progress being made towards greater support for breastfeeding in maternity settings through the increasing implementation of the Baby-Friendly Hospital Initiative in New Zealand, little progress appears to have been made towards the establishment of baby-friendly/breastfeeding-friendly workplaces and early childhood services. Nor has support for breastfeeding been recognised as a critical component of the early childhood education national curriculum, despite evidence on the importance of breastmilk and breastfeeding for healthy child development and cognition.

Findings from the case studies of two childcare centres that aimed to be breastfeeding-friendly were outlined in this report. Differences were identified between the two centres in how they went about supporting breastfeeding. Key factors for assisting parents who are breastfeeding were identified, also taking into account research in this area. A number of issues to consider when creating a breastfeeding-friendly childcare environment were highlighted by the study. Of particular importance was creating a culture within childcare centres where breastfeeding becomes the norm rather than the exception in terms of administrator, staff, and parental expectations.

This report highlights the need for a consistent set of national guidelines regarding the protection, promotion and support of breastfeeding for both the providers and consumers of childcare. Guidelines also need to be translated into a range of languages, including Maori and some of the main Pacific languages. To achieve real change, national guidelines would need to be institutionalised. This would require a two-pronged approach, involving the establishment of both training/professional development programs on breastfeeding for all early childhood staff and breastfeeding-friendly policies and practices relevant to the childcare setting.

Professional development with regard to making childcare centres breastfeeding-friendly and increasing staff awareness about breastfeeding support needs to be included in initial early childhood training courses. The Ministry of Education may need to consider looking at ways of disseminating information to centres and providing professional support for the implementation of guidelines and the development of early childhood centre breastfeeding-friendly policies and procedures. It may also be useful to canvass whether breastfeeding support guidelines could be incorporated in childcare accreditation standards.

It is important that childcare providers are not left to develop systems for breastfeeding support in isolation and on an ad hoc basis. Greater recognition also needs to be given to the fact that the development and design of breastfeeding-friendly childcare policies and provisions and professional development programs are areas requiring specialist, evidence-based input.

Drawing on the findings of the study and on the literature and international and national guidelines for breastfeeding a set of guidelines for supporting breastfeeding in childcare was drafted. The draft guidelines are attached at the end of this report.

Please note that this is the first iteration of the guidelines. It is intended that the findings of this study and the draft guidelines will encourage discussion on breastfeeding support as a quality issue in childcare and that feedback on the draft guidelines will help to

inform subsequent iterations. Although it is beyond the scope of this project, a model for further developing and strengthening these preliminary guidelines might be the approach taken for hospitals in the development of the Baby Friendly Hospital Initiative 'Ten Steps', which provides evidence based support for this initiative.[61]

[61] World Health Organization. (1998). Division of Child Health and Development, *Evidence for the Ten Steps to Successful Breastfeeding*. WHO/CHD/98.9. Geneva: World Health Organisation.

Appendices

Appendix A: Parent Interview Schedule

Background
Mother's Age: _____
Mother's Ethnicity: _____ Child's Ethnicity: _____
If older siblings, were they breastfed? _____
Age of infant when started at centre _____ Age now: _____

Questions

1. Breastfeeding history
- ❖ Any difficulties?
- ❖ Full or partial breastfeeding? Reasons for change to partial?
- ❖ Demand or time scheduled feeding? How does this fit in with infant (and staff) at the centre? Any difficulties for you?
- ❖ If you express milk and leave it in bottles/other containers, how has this worked? And any issues?

2. What are (or were) your reasons for breastfeeding?

3. How have you found or managed combining breastfeeding and employment or other commitments? Or, what were the challenges for you and your infant in maintaining breastfeeding when you started at the centre?

4. If you breastfeed at the centre, what are your feelings and thoughts as you feed (e.g. about your baby, about the centre, about what others' think of you, about what else you feel you should be doing)?

5. How has the centre and the staff supported you and your infant to continue with breastfeeding?
- ❖ Staff support?
- ❖ Support of other parents?
- ❖ Facilities, equipment, and space for breastfeeding?

6. What would make the continuation of breastfeeding easier for you at the centre?

7. In what ways might the support provided by the centre differ from your own cultural or family values?

Appendix B: Teacher Interview Schedule

1. During teacher training, or at any time during your career in early childhood education, have you received information or learnt about:
- ❖ Why breastfeeding is important?
- ❖ How you as an early childhood teacher can support breastfeeding?
- ❖ How early childhood centres can promote breastfeeding?

   If not, what have your sources of information been?

2. As an early childhood teacher what have you learnt about supporting working/studying mums and breastfeeding that you think would be key advice to include in guidelines for other early childhood teachers?

3. Have you encountered any differences amongst parents in cultural beliefs and practices of breastfeeding?
- ❖ Please describe
- ❖ How can these differences be accommodated for and supported in a centre?
- ❖ Any difficulties (practical or in terms of policy) in supporting these differences?

4. How does your communication with a breastfeeding mother differ from communication with a non-breastfeeding mother?

5. What have you found to be the best practical strategies for easing the transition of fully-breast babies from home to the centre?

6. Your centre supports breastfeeding in a number of ways through its provisions and policies, and this will be useful for sharing with other centres. I am also interested in any other suggestions you may have for how a centre could or should support breastfeeding.

7. Can you recall and briefly describe one situation where you felt successful or your centre was successful in supporting breastfeeding?

8. Can you recall and briefly describe one situation where difficulty was encountered in supporting breastfeeding and this difficulty was only partially overcome or not able to be overcome?

Appendix C: Supervisor/Manager Interview Schedule

Policies and Practices

1. Any written centre policies specifically on breastfeeding. Also, any written policies that may directly or indirectly relate or refer to the support of breastfeeding.

2. If there are written policies, how did these written policies come about?

❖ Any problems/difficulties in the initial design and development of the policies?

3. Any unwritten informally agreed-upon policies practiced by staff.

4. Any guidelines used to inform staff in the correct storage, preparation, and feeding of human milk.

5. The difficulties in implementing these written and unwritten policies and guidelines (e.g. time, resources and information, parent support, staff knowledge and confidence, regulations or other requirements that may conflict etc.).

6. What happens or would be likely to happen if a mother's milk was inadvertently fed to someone else's child?

7. What happens in cases where infants start at the centre and they are breastfeed on demand? Are mums asked to change to a time scheduled pattern of feeding? How do staff cope if the baby is hungry and mum is not at the centre?

8. While your centre supports breastfeeding, does it also promote breastfeeding in any way (e.g. through information, referrals, liaison with employers or tertiary institution)?

Physical Environment and Provisions

9. What is provided in the physical environment of your centre for supporting breastfeeding?

10. What difficulties have you encountered in trying to support breastfeeding with the current provisions and equipment? What improvements would make it easier or better?

Experiences and Views

11. From your experience have you found that transition for fully or partially breastfeed babies to the centre is more successful at a certain age?

12. Parents can individually and culturally differ in their expectations for support and their practices of breastfeeding.

❖ How can an early childhood centre accommodate these individual and cultural differences amongst mums?

❖ Have you encountered any differences in expectations and practices that are too difficult to accommodate in a centre environment?

13. Can you please describe any encounters you may have had with parents or staff who disagreed with any aspect of the centre's support for breastfeeding mums and what the reactions and responses were to disagreements.

14. Have you encountered any dilemmas in supporting breastfeeding?

15. What have you found to be the main benefit for parents of the centre's support of breastfeeding?

- ❖ The main benefit(s) for infants?
- ❖ The main benefit(s) for other children at the centre?
- ❖ The main benefit(s) for yourself and your staff?

Any thing else I may not have covered? Or any other information or insights that may be useful for this study?

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Developing Breastfeeding-Friendly Centres

Dr. Sarah Farquhar and Dr. Judith Galtry

Preamble[1]

Support for breastfeeding is an important quality concern for early childhood education services. There has been a considerable growth in enrolments among children under one year in early childhood education.[2] Improving breastfeeding duration rates has the potential to reduce childhood health problems and has important developmental benefits, as well as implications for health care savings.[3]

Encouraging breastfeeding has the potential to reduce the incidence of infectious illness in the childcare setting.[4] Research shows that there are significant health risks as well as individual, familial and societal costs associated with formula feeding or early weaning from breastmilk.[5] Early childhood centre staff need to be well informed about support for breastfeeding, as well as playing an active role in promoting informed choice among parents about the potential health risks of artificial infant feeding or early weaning from breastmilk. There is considerable medical literature on early childhood settings as a risk factor for infectious illness, including respiratory illness, otitis media and gastrointestinal disease.[6] [7] Breastfeeding plays a potentially important role in reducing the severity, incidence and duration of infectious illness.

For many new mothers, the decision to resume employment and place their child in care will be influenced by, even reliant upon, the degree of support provided for breastfeeding. The establishment of breastfeeding-friendly childcare therefore represents an important equal employment opportunity issue.

The benefits of breastfeeding for mothers and for children are significant and wide-ranging. Research among infants in developed countries provides strong evidence that breastfeeding decreases the incidence and/or severity of diarrhea, lower respiratory tract infection, otitis media, bacteremia, bacterial meningitis, urinary tract infection, and necrotising enterocolitis. A number of studies also suggest a possible protective effect of breastfeeding against sudden infant death syndrome (SIDS), Type I diabetes mellitus, Crohn's disease, lymphoma, ulcerative colitis, and allergic diseases.[8] Breastfeeding is also associated with enhanced cognitive development in infants.[9]

For mothers, not breastfeeding increases the risk of postpartum hemorrhage, premenopausal breast cancer, ovarian cancer, osteoporosis and endometrial cancer.[10] Breastfeeding also offers mothers a range of other less easily quantifiable advantages in terms of their own well-being and self-esteem, as well as enhanced bonding with their offspring.[11] In relation to paid employment, both mothers and fathers, or other partners, may benefit if the infant is breastfed as breastfed infants are less likely to be excluded from the early childhood centre on account of illness.[12]

In New Zealand, there has been little improvement in breastfeeding rates for the past decade, with considerable variations in breastfeeding rates both geographically, and for the different ethnic groups at both six weeks and at 11-15 weeks (three months). In 2001, there was found to be a high drop-off in breastfeeding rates during the first three months after childbirth, with 65.6 percent fully breastfeeding at 5-6 weeks and 50.9 percent by three months. Maori and Pacific breastfeeding rates remain consistently lower than the rest of the population.[13] The drop-off in breastfeeding rates is in sharp contrast with international and national recommendations, which advise exclusive breastfeeding (i.e. breast milk without any additional fluid or food) for the first six months of a child's life and continued breastfeeding for up to two years or beyond.[14] It is essential that policies and practices are developed and implemented by the early childhood and health sectors to ensure that all mothers are enabled to meet these "best practice" recommendations.

In early childhood education there are no guidelines or requirements for policy on breastfeeding support, with the exception of Te Whaaraki the early childhood curriculum which refers to the encouragement of breastfeeding to help mothers feel they belong and are welcome in the centre. Drawing on the findings of the small-scale study outlined in the background report accompanying these guidelines and taking into consideration the international and national literature, a set of Guidelines for Supporting Breastfeeding was drafted. This is the first iteration of the Guidelines. We hope the Guidelines (together with the background report) will generate much discussion in your centre and will prove useful in developing policies that best match your families cultural values and centre structure. Let us know how it goes. Your feedback is welcome and valued and will be used to inform subsequent iterations of the Guidelines. Please send your comments to:

Email: sarah@childforum
Dr. Sarah Farquhar, PO Box 58-078, Wellington

Or

Email: jgaltry@actrix.gen.nz
Dr. Judith Galtry, 88 The Parade, Paekakariki, Kapiti Coast.

Draft Guidelines for Supporting Breastfeeding

Space, Facilities and Equipment

Essential

- Provide a comfortable (e.g. warm), dedicated space or "breastfeeding nook" that is private for mothers to breastfeed and to express milk. This should include comfortable armchairs and several good-sized cushions/pillows and footstools, as well as a selection of toys.
- Have a freezer available to store frozen breastmilk, a fridge for the storage of expressed breastmilk, and sterilizing equipment (for cleaning feeding equipment for infants less than three months).
- Provide kitchen facilities and equipment for parents to prepare expressed breastmilk (EBM), heat solid food, and heat their own lunch or snacks.
- Have a nappy changing table or area in the breastfeeding room and a sink for washing hands. Alternatively, give parents easy access to the area where staff change children's nappies and wash their hands.
- Provide a water cooler or access to fresh drinking water.

Desirable

- Allow mothers, if they prefer, to also breastfeed within the main centre environment.
- Consider ways that space may be used to support the employment/studying needs of breastfeeding parents. (For example, if your parents commonly use computers as part of their employment or study, consider making space available that has power-points for laptops to be plugged in).
- Look into what can be included in the parents' room to help make parents feel welcome, for example, newspapers and popular magazines.

Policy and Administration

Essential

- Develop your centre's breastfeeding policy by involving all members of the management and staff. Their "ownership" of the policy and agreement with it is essential for successful and full implementation. Also consult with the families of children who are breastfed to discuss and check on the suitability and value of draft policy statements before finalising the policy.
- Keep the policy up-to-date. Monitor the needs of families and regularly evaluate how well the policy is designed to meet those needs, and revise the policy accordingly.
- Encourage staff to undertake staff professional development opportunities on breastfeeding and infant nutrition.
- Ensure that staff have professional support and access to professional advice about breastfeeding, for example from an accredited lactation consultant, a La Leche League Leader, or a Plunket nurse.
- Ensure that all visiting parents and enrolling parents are informed about the centre's breastfeeding policy and practices.

Desirable

- Consult with other centres that have already established successful policies and procedures for supporting breastfeeding.
- Promote your centre as breastfeeding-friendly in advertising promotions.
- Organise peer supervision for staff who do not have a strong knowledge base about breastfeeding and previous contact with breastfed children.
- Allow flexibility in the hours parents are required to book for. Also allow breastfeeding parents to book in and out.
- Obtain and display booklets, pamphlets and other resources about breastfeeding for parents and staff.
- Make a financial commitment in the centre budget to provide what is stated in the policy.

Communication and Relationships

- Check parents' understanding of staff support for breastfeeding in the centre.
- Ask breastfeeding mothers to phone you during the day to check on their child's well-being and so you can ask them any questions.
- Have a book for parents to write in upon arrival about their child and any particular needs or requirement, including the mother's intended breastfeeding schedule, that day.
- Foster ongoing dialogue with mothers/families about breastfeeding and sleeping practices at home and at centre.
- Provide mothers with reassurance and encouragement to support the continuation of breastfeeding.
- Clarify family requirements for feeding of EBM and complementary foods and what you should do when parents are not available.
- Identify cultural and family differences in understandings and practices.
- Present a positive, accepting and non-judgmental attitude towards the infant feeding decisions and practices of families.
- Convey to other children (older children and non-breastfed children) at the centre that breastfeeding is acceptable and natural. Integrate discussion about breastfeeding into children's learning, for example with pictures of lambs feeding from their mothers. Have a positive and accepting attitude towards children's play that demonstrates their interest in breastfeeding, for example, when children are pretending that their dolls are babies.
- Encourage and provide opportunities for parents to talk about breastfeeding and share their experiences with other parents.
- Suggest an appropriate breastfeeding specialist/health professional to mothers/families who need specific assistance or advice on a breastfeeding matter. Contact the specialist and provide a referral if wanted by the family.

Breastmilk Storage, Handling and Feeding Procedures[15]

- Wash hands before and after preparing and feeding EBM.
- Each time breastmilk is expressed it should be stored in a clean glass or plastic container with a screw cap lid.
- Ensure containers of stored EBM are clearly named with the child's name and date milk was expressed.
- Human milk can be kept in a common refrigerator in the workplace or child care facility and requires no special precautions for handling other then clean hands and clean containers. (Inform the parents if children happen to be inadvertently fed EBM that was intended for another child or EBM has been given after the recommended time for safe storage).
- Expressed breastmilk should be stored:
    - at room temperature if necessary (19-22C) for up to 10 hours.
    - in a refrigerator (0-4C) for up to 8 days.
    - in a freezer compartment inside a refrigerator (variable temperature due to the door opening frequently) for up to 2 weeks.
    - in a freezer compartment with a separate door (variable temperature due to the door opening frequently) for up to 3 to 4 months.
    - in a separate deep freeze (19C) for up to 6 months or longer.
- If breastmilk has been frozen it should be allowed to thaw in the refrigerator or by placing the container in warm water until thawed.
- Once frozen milk is thawed, it can be kept in the refrigerator, but not refrozen.
- Do not use a microwave oven or overheat breastmilk, as valuable components can be destroyed.
- Use the oldest milk first.
- Feed infants expressed breastmilk on demand, unless the parent provides other instructions.
- Keep at least one container of frozen milk for emergencies.
- For children less than three months feeding implements should be sterilized before use.
- Gently swirl heated breastmilk and test the temperature before feeding.

Contacts for Further Assistance

- Community Health Workers, including Maori and Pacific Health Workers (phone your local Crown Health Enterprise: CHE)
- La Leche League: http://www.lalecheleague.org/LLNZ/ (or contact your local La Leche League group through the phone book or ask a health professional for contact details)
- Lactation Consultants (ask a health professional for contact details)
- Medical Practitioners
- Royal New Zealand Plunket Society: Plunket Line Call Free 0800 933 922 http://www.plunket.org.nz (or contact your local Plunket Nurse or Karitane-Family Centre through the phone book)
- Local Plunket clinics listed in phone book.

- Parents Centres: http://www.parentscentre.org.nz
- Public Health Nurses (contact your local CHE)

Sources of Further Information

For employers and supervisors in the childcare setting, essential reading is the Ministry of Health (2000). *Food and nutrition guidelines for healthy infants and toddlers (aged 0 – 2 years). A background paper.* The paper can be downloaded from the Ministry website at www.moh.govt.nz

For parents, copies of the Ministry of Health booklet *Healthy eating for babies and toddlers* (code 6004) can be obtained from the Ministry of Health and local health workers.

Focusing mainly on healthy eating for over twos, with a discussion of differences in cultural perspectives regarding health, is a manual distributed to early childhood centres by the Ministry of Health called *Nga Kupu Oranga. Healthy messages. A health and safety resource for early childhood services.*

American Academy of Pediatrics and American Public Health Association. Caring for Children: National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs. (This publication is available from AAP Publications Department, P.O. Box 927, Elk Grove Village, IL 60009-0927 USA. Fax 847-228-1281).

Sources of Internet information include:

1. Child Care Information Exchange: http://www.childcareexchange.com
2. Canadian Child Care Federation. See Resource Sheet No. 57 on *Supporting breastfeeding in childcare*: http://www.cfc-efc.ca/docs/cccf/rs057_en.htm
3. World Alliance for Breastfeeding Action: http://waba.org.br/ (this site includes a page for children and resources that may be purchased including breastfeeding dolls)

END NOTES

[1] A background report accompanies these guidelines, which outlines in greater detail the supporting research. See Farquhar, S. & Galtry, J. (2003). *Developing Breastfeeding-Friendly Childcare to Support Mothers in Paid Employment and Studying: Case Studies of Two Centres and Draft Guidelines for Supporting Breastfeeding in Childcare.* Report prepared for the Equal Employment Opportunities Contestable Fund. Wellington: Department of Labour.

[2] Statistics obtained from the Ministry of Education.

[3] Ministry of Health. (2002). *Breastfeeding: A guide to action*. Wellington: Ministry of Health; Weimer, J. (2001). *The economic benefits of breastfeeding: A review and analysis*. Food Assistance and Nutrition Research Report No. 13. Food and Rural Economics Division, Economic Research Service. U.S. Department of Agriculture.

[4] Review in Galtry, J. (2002). "Child health: An underplayed variable in parental leave and early childhood education policy debates?" *Community, Work & Family 5(3): 257-278*.

[5] Ball, T.M. & Wright, A.L. (1999). "Health care costs of formula-feeding in the first year of life." *Pediatrics 103:* 870-876; Walker, M. (1993). "A Fresh Look at the Risks of Artificial Infant Feeding." *Journal of Human Lactation 9(2):* 91-106.

[6] For example, Bedford, M. (2001). Perceptions of communicable disease issues in New Zealand early childhood centres. *NZ Research in Early Childhood Education Journal, 4,* 73- 102; Forssell, G., Hakansson, A. &. Mansson, N.O. (2001). "Risk factors for respiratory tract infections in children aged 2-5 years." *Scandinavian Journal of Primary Health Care 19(2):* 122-125; Matson, D.O. (1994). "Viral gastroenteritis in day-care settings: Epidemiology and new developments." *Pediatrics*, 94(6): 999-100; McCutcheon, H. & Fitzgerald, M. (2001). "The public health problem of acute respiratory illness in childcare." *Journal of Clinical Nursing 10(3):* 305-310: Wald, E.R., Dashefsky, B., Byers, C., Guerra, N. & Taylor, F. (1998). "Frequency and severity of infections in day care." *The Journal of Pediatrics, 112*(4): 540-6.

[7] Review in Galtry, J. (2002). Ibid.

[8] American Academy of Pediatrics. (1997). "Breastfeeding and the use of human milk." *Pediatrics 100:* 1035-1039.

[9] Angelsen, N.K., Vik, T., Jacobsen, G. & Bakketeig, L.S. (2001). "Breast feeding and cognitive development at age 1 and 5 years." *Archives of Diseases in Childhood, 85*: 183-188; Horwood, J. & Fergusson, D. (1998). "Breast-feeding and later cognitive and academic outcomes." *Pediatrics, 101:* e9; Horwood, L.J., Darlow, B.A. & Mogridge, N. (2001). "Breast milk feeding and cognitive ability at 7-8 years." *Archives of Disease in Childhood. Foetal and Neonatal Edition, 84*, F23-7; Morley, R., Cole, T.J., Powell, R. & Lucas, A. (1988). "Mother's choice to provide breast milk and developmental outcome." *Archives of Disease in Childhood, 63* (11): 1382-1385; See also review in Bartle, C. (2002). "Breast milk, breastfeeding and the developing brain. "*Childrenz Issues, 6* (2): 39 – 43.

[10] American Academy of Pediatrics. (1997). Ibid.

[11] Labbok, M. (2001). "Effects of breastfeeding on the mother." *Pediatric Clinics of North America 48*(1): 143-158.

[12] Jones, E.G. & Matheny, R.J. (1993). "Relationship between infant feeding and exclusion rate from child care because of illness." *Journal of the American Dietetic Association 93*(7): 809-811.

[13] Ministry of Health. (2002).Ibid.

[14] Ministry of Health. (2002). Ibid; World Health Organization. (2002). *Infant and young child nutrition*. World Health Organization, Fifty-Fifth World Health Assembly 16 April 2002.

[15] La Leche League International Guidelines; Mohrbacher, N. & Stocker, J. (1997). *The Breastfeeding Answer Book*. Schaumburg, Illinois: La Leche League International. (Chapter Nine focuses on the Expression and Storage of Human Milk).