‘How about we give it a go?’: a case study of breastfeeding support in long day care in the Australian Capital Territory

Emma Woolley

BMedRad(DiagRadiog) MHlthSc(HlthServMgmt) *UniSA*,
GradDipEd *Murdoch*, GradCertEChild *Macquarie*

Macquarie School of Education
Faculty of Arts
Macquarie University

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Contents

Thesis Summary

Case studies of individual long day care (LDC) services have been used to capture multiple sources of information relating to breastfeeding support. These studies have identified components of the service that may protect, promote and support breastfeeding. To date, these studies have focused on LDC services co-located within a university. This case study extends current findings by examining breastfeeding practices at an LDC service located in the Australian Capital Territory's outer suburbs. Families and educators at a suburban service provide a different perspective on the Australian LDC sector with the potential to elicit opportunities and barriers not apparent from university-based services.

Extending from a collective case study by Monk, Gilmour and Hall (2013), a cultural-institutional focus of analysis was used to explore the roles of proximity, flexibility and communication in supporting breastfeeding within an LDC service located close to an infant's home (Rogoff, 2003). In-depth semi-structured interviews with service staff and families, triangulated with observations of the service environment and policy documents provide insight into the support environment.

This study contributes to the knowledge base of breastfeeding support interventions in the LDC setting to inform future research and policy. The findings suggest some long-term benefits may be derived from selecting a service close to an infant's home, provided their mother can overcome barriers to breastmilk expression in her workplace. Working beyond two-way communication towards authentic collaboration between the service and family may improve a service's breastfeeding culture and help address the gap between service policy and educator practice. Tackling this praxis gap may reduce the burden on mothers in requesting and monitoring adjustments to practice to meet her infant's needs.

Fathers provide practical and emotional support for the breastfeeding relationship, particularly during the orientation period. Findings also suggest that constructing a breastfeeding-friendly childcare culture for families may be linked to educators' working conditions.

Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself. All help and assistance that I have received in my research work and on the preparation of the thesis itself has been appropriately acknowledged.

The research presented in this thesis was approved by the Macquarie University Human Research Ethics Committee's Human Sciences Subcommittee, reference number 5201834806742 (January 2019).

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Commonly Used Acronyms

ACECQA	Australian Children's Education & Care Quality Authority
ACT	Australian Capital Territory
AIHW	Australian Institute of Health and Welfare
ANU	Australian National University
CECA	Children's Education Care & Assurance
DEEWR	Department of Education, Employment and Workplace Relations
ECEC	Early Childhood Education & Care
EYLF	Early Years Learning Framework
IIFAS	Iowa Infant Feeding Attitude Scale
LDC	Long Day Care
NHMRC	National Health and Medical Research Council
NPAPH	National Partnership Agreement on Preventive Health
NQS	National Quality Standard
WHO	World Health Organization

Chapter 1

Introduction

There is strong evidence for the health, societal and economic benefits of protection and promotion of breastfeeding for both mother and infant (Horta & Victora, 2013; Smith & Forrester, 2013). *Australia's Infant Feeding Guidelines* (2013a), published by the National Health and Medical Research Council (NHMRC), recommend exclusive breastfeeding until around six months of age complemented by family foods until 12 months of age and beyond. In the context of this thesis, breastfeeding is the provision of breastmilk, either directly from the mother, or in its expressed form in a cup or bottle. "Breastfeeding-friendly" refers to practices which both recognise the dyadic nature of the mother-infant relationship and protect, promote and support breastfeeding (Bartle & Duncan, 2010).

A mother's return to work is often cited as a contributing factor in the cessation of breastfeeding (AIHW, 2011; Weber, Janson, Nolan, Wen, & Rissel, 2011). Limited national data on breastfeeding initiation and duration is available, however it is understood that Australia has high rates of initiation of breastfeeding but short breastfeeding duration rates, commensurate with many other high-income countries (AIHW, 2018; Smith et al., 2018).

Setting-based approaches to population health recognise the significance of contexts in health promotion, over individualistic approaches, and were first recognised in the *Ottawa Charter for Health Promotion* (World Health Organization, 1986). The early childhood education and care (ECEC) sector, including long day care (LDC), family day care and occasional care, is increasingly recognised as an important setting for the delivery of population health interventions (Minniss, Wardrope, Johnston, & Kendall, 2013; Rissel, Innes-Hughes, Thomas, & Wolfenden, 2019). In Australia, ECEC settings have demonstrated capacity to facilitate interventions related to vision screening, oral health, mental health and obesity prevention (Askell-Williams & Murray-Harvey, 2016; Blows, Murphy, Martin, & Davies, 2014; Brooks et al., 2018; de Silva-Sanigorski et al., 2011; Farrell, Kelly, King, Hardy, & Howlett, 2010).

Previous successes of population health interventions in the Australian ECEC setting indicate that the sector may also be well suited to actively supporting breastfeeding, however the complex nature of decision-making about infant feeding means research findings on other health topics may not necessarily translate to breastfeeding promotion. Researchers have recognised the lack of evidence as a barrier to designing and implementing effective population health interventions to improve breastfeeding rates through the setting (Javanparast, Newman, Sweet, & McIntyre, 2012). There is a paucity of research on scalable population health interventions to promote, protect and support breastfeeding in the Australian ECEC setting, and it has been limited to several foundational studies.

Collaborations with families provide opportunities for ECEC services to improve outcomes for children, and to negotiate each child's experience at the service (Hadley, 2014; Rouse, 2012). The importance of developing a strong partnership with a child's family is one of the central themes of the key policy documents for ECEC in Australia: the *Early Years Learning Framework* (EYLF) and the *National Quality Standard* (NQS) (DEEWR, 2009; Roberts, 2017). High quality collaboration involves actively working towards a shared goal of improving outcomes for a child (Hedges & Lee, 2010). A positive partnership involves regular reciprocal communication and interaction, and valuing the contribution and knowledge that each party brings to the child's experience and life (Rouse & O'Brien, 2017). A shared understanding of each family's infant feeding goals, and their individual situation will improve the support the service provides (Bartle & Duncan, 2010).

The main aim of the present study is to address the identified gap by contributing to the evidence base of 'what works' in supporting mother-infant dyads to continue to breastfeed in the ECEC setting in Australia by providing an instrumental case study of a LDC services that is not co-located with a workplace or higher education setting. The present study describes the features of the service that contribute to the creation of a supportive environment and a cultural-institutional focus of analysis was used to examine the complex interplay between service management, educators and families attending the service. Pseudonyms have been used for the service name and the names of interviewees and children throughout this thesis.

Chapter 2

Literature Review

Literature reviewed includes current recommendations for breastfeeding in Australia, the policy context affecting breastfeeding support provided by ECEC settings in Australia and explores the international and Australian literature related to breastfeeding support provided by ECEC settings, with particular reference to research undertaken within the jurisdiction of the ACT. The review also considers theoretical frameworks for examining the sociocultural context of breastfeeding within ECEC, and the foundational role of collaboration between families and ECEC settings.

Breastfeeding in Australia

Breastfeeding is defined as the provision of human breastmilk to a child (WHO, 2003). Breastmilk may be provided either directly from the mother, or, when a mother is unable to do so, in its expressed form or from a wet nurse (WHO, 2003). Milk expression is the removal of milk from the human breast by means other than an infant's mouth, generally by hand or breast pump (Binns, Win, Zhao, & Scott, 2006). Should breast milk not be available in a sufficient quantity, infant formula is recommended as an alternative source of nutrition (NHMRC, 2013). 'Exclusive breastfeeding' means no other food or drink (including water or juice) is provided to the infant, except for medicines (Webb, Rutishauser, Marks, Masters, & Leeder, 2006). The provision of a combination of breastmilk and infant formula to an infant may be termed 'mixed feeding' or 'partial breastfeeding' (NHMRC, 2013; Smith et al., 2018). These definitions have been used throughout this literature review, unless the studies consulted have used a different definition, in which case it is clearly stated.

It is now well accepted that there is a correlation between breastfeeding and improved short-, medium- and long-term health outcomes (Pokhrel et al., 2015; Rollins et al., 2016; Victora et al., 2016). Infants who breastfeed for longer durations are likely to have improved later cognitive development, lower susceptibility to infectious and

chronic disease and improved appetite regulation than infants who breastfeed for shorter periods, or who are not breastfed at all (Victora et al., 2016). These effects are seen to persist throughout a child's life (Richards, Hardy, & Wadsworth, 2002). For mothers, breastfeeding provides a degree of protection against developing pre-menopausal breast cancer, increases inter-pregnancy intervals and has been linked to lower rates of ovarian cancer and Type 2 diabetes (Horta & Victora, 2013).

Australia's current *Infant Feeding Guidelines* (2013) recommend exclusive breastfeeding until around six months of age, then complemented by solid foods until 12 months of age and beyond. These guidelines differ slightly from the World Health Organization (2017) recommendation for exclusive breastfeeding of infants to 6 months of age, with breastfeeding to continue until at least two years of age.

Australian breastfeeding rates do not reflect these recommendations. A recent government report on Australian nutrition across the lifespan provided important information on breastfeeding in Australia (AIHW, 2018). Australia has high rates of initiation of breastfeeding, with 92% of children aged birth to three having every received breastmilk (AIHW, 2018). This initiation rate is comparable with other developed countries, such as the United Kingdom, Canada, Germany and Norway, whom all have initiation rates higher than 80% (Department of Health and Ageing, 2009a). Almost all Australian infants receive breastmilk on discharge from hospital; however only 25% of infants are exclusively breastfed at six months of age (AIHW, 2018).

A decline in breastfeeding over recent generations has been attributed to the increased availability of infant formula, matched with an increase in the proportion of women returning to the workforce (McFadden et al., 2017; Rollins et al., 2016). A notable factor in the cessation of breastfeeding is a mother's return to work (AIHW, 2011; Weber et al., 2011). A link has been established between a return to work within 12 months of birth and shorter and less exclusive breastfeeding duration in Australian mothers (Scott, Binns, Oddy, & Graham, 2006).

The number of hours mothers spend in employment may have an impact, as well as the attitudes encountered on their return to work. An Australian study found that mothers who worked more than 20 hours per week were significantly less likely to be

breastfeeding at six months than those who worked l9 hours per week or less, regardless of when they returned to work (Xiang, Zadoroznyj, Tomaszewski, & Martin, 2016). A recent study of Australian Breastfeeding Association volunteer trainees identified behaviours and practices perceived as a positive influence on their own breastfeeding outcomes. Most mothers surveyed intended to continue to breastfeed when they returned to work, and many had the support of their partners and families to do so, suggesting that workplace attitudes to breastfeeding may be a modifiable factor to improve breastfeeding outcomes (Tawia, Bailey, McGuire, & James, 2019). A link has been established between negative remarks about lactation by supervisors and discontinuation of exclusive mothers in an American study, demonstrating that a lack of support for breastfeeding mothers is not confined to Australian workplaces (Spitzmueller et al., 2016).

As the other half of the dyadic relationship, many Australian infants are enrolled in an LDC service when their mother returns to the workplace, and mothers may make a decision about whether to continue or cease exclusive breastfeeding at this juncture. A 2009 review of data from the Longitudinal Study of Australian Children (LSAC) found that 37.9% of infants who entered formal childcare did so before six months of age, with the majority (28.3%) being in LDC services, with the remainder in family day care and occasional care services (Harrison et al., 2009). There is a long-term trend in Australia towards participation in formal childcare in infancy, including LDC, over the use of informal care arrangements for infants (Australian Bureau of Statistics, 2017). This suggests that breastfeeding behaviours and practices within the Australian LDC environment warrant further investigation.

Australian Policy Context

In the last decade, several public policies have influenced breastfeeding support delivered by the Australian LDC setting. In 2009, the introduction of the *National Quality Standard* (NQS) and the *Early Years Learning Framework* (EYLF) as part of the National Partnership Agreement on the National Quality Agenda for Early Childhood Education and Care, created a unified and integrated national system for ECEC in Australia. Simultaneously, actions contained within the *Australian National Breastfeeding Strategy*

2010-2015 and interventions delivered through the 2008-2014 National Partnership Agreement on Preventive Health (NPAPH) both broadened the role of health promotion within ECEC services.

National Quality Agenda for Early Childhood Education and Care

The National Partnership Agreement on the National Quality Agenda for Early Childhood Education and Care is a key part of the Council of Australian Government's reform agenda. The aim of the agreement was to improve outcomes for children through continuous improvement of the quality of Australian ECEC services, replacing existing disconnected state- and territory-based licensing and quality processes (Harrison et al., 2009).

While the introduction of the NQS and EYLF have been transformative for the Australian LDC sector, neither document explicitly refers to either breastfeeding or infant feeding. Concerns have been raised about the lack of differentiation between age groups within the documents, which may be attributed to the socio-political context in which the documents were developed, including a key driver to secure universal access to preschool for children in the year before school (Fleet & Farrell, 2014). As such, educators have identified difficulties in applying the EYLF to infants and toddlers, and infants have been described as "*relatively invisible*" in the curriculum framework (Davis, Torr, & Degotardi, 2015).

While the application of the framework to infants may not always be clear, undertaking collaborative decision-making with families from their enrolment is one of the core Quality Areas of the NQS. The Standard recognises the uniqueness of each family, and the role of parents as a child's primary caregiver (ACECQA, 2018). The Standard requires educators working in LDC services to seek to develop partnerships with families. Concepts of mutual respect, family involvement and connecting families with relevant community services are embedded within the standard and the EYLF (ACECQA, 2018). While the EYLF describes the importance of LDC services in building a rich relationship with families to co-create a child's experience, differences in power and authority between the family and the service may affect the ability of the service to understand and adapt to families' priorities and requests (Stonehouse, 2012).

The further inclusion in the NQS of elements related to nutrition and physical activity formalised the role of ECEC services in hosting or delivering health promotion interventions; however, the specific role of services in breastfeeding promotion has only recently been officially acknowledged. Initial guidance material from the Australian Children's Education & Care Quality Authority (ACECQA) on the NQS, published in 2016, did not make any specific reference to breastfeeding or infant feeding. More recently, the guidance material released in 2018 to support the Revised NQS confirms the role of services in encouraging and supporting breastfeeding, providing sample questions for assessors and reflective practice questions for services (ACECQA, 2016, 2018). Outside of the National Partnership Agreement, limited guidance on the safe handling and storage of breastmilk and preparation of infant formula in ECEC settings can be found in the NHMRC's guiding document on infection control for the sector, *Staying Healthy* (2013b).

National Breastfeeding Policy

The *Get Up & Grow: Healthy Eating and Physical Activity for Early Childhood* guidelines contain guidance for LDC settings on supporting breastfeeding, and appropriate use of infant formula (Department of Health and Ageing, 2009b). The guidelines offer tips and advice for staff on storing and feeding expressed breastmilk, and for supporting mothers who are breastfeeding. The accompanying resources were translated into nine community languages, and adapted resources for Aboriginal and Torres Strait Islander families were available from June 2013.

The *Australian National Breastfeeding Strategy 2010-2015* was the first cohesive strategy for breastfeeding support in Australia (Department of Health and Ageing, 2009a). The *ACT Breastfeeding Strategic Framework 2010–2015*, supported the local implementation of the action areas of the national strategy. Implementation of the strategy in the ACT was primarily limited to the health system (Department of Health, 2016). Concurrent national initiatives impacting breastfeeding protection, promotion and support during the strategy's period included the introduction of National Paid Parental Leave in 2011, and amendments to the Commonwealth *Sex Discrimination Act 1984*, which established breastfeeding as a separate ground of discrimination, strengthening State and Territory anti-discrimination laws (Department of Health, 2016).

An updated Australian national breastfeeding strategy was due to be released in late 2018 but was subject to multiple delays (Department of Health, 2018; Smith, 2018). The draft strategy included a pilot for a Breastfeeding Friendly Childcare accreditation scheme, modelled on the Australian Breastfeeding Association's Breastfeeding Friendly Workplace accreditation scheme (Department of Health, 2019b; Tawia, 2012). No further information was available on the details of the scheme at the time of writing. Following public consultation, the revised *Australian National Breastfeeding Strategy: 2019 and Beyond* strategy was approved by the Australian Health Minister's Advisory Council and released in August 2019, with no further details available on the scheme. (Department of Health, 2019b).

National Partnership Agreement on Preventive Health

The Healthy Children Initiative and Healthy Workers Initiative, both established by the National Partnership Agreement on Preventive Health (NPAPH) in 2009, included significant investment in programs to promote healthy lifestyles within LDC settings and workplaces, including interventions to protect and promote breastfeeding (Grunseit, Rowbotham, Pescud, Indig, & Wutzke, 2016; Wutzke, Morrice, Benton, & Wilson, 2017). Interventions included training on infant feeding for early childhood educators, assistance for LDC services and workplaces to develop breastfeeding policies and the development of consumer information (Wutzke et al., 2018). Evaluation of the breastfeeding support components of these initiatives is limited.

In the ACT, the *Kids at Play* program, funded under the Healthy Children Initiative, provided training and resources to LDC and family day care educators on a range of key messages, including *''Breastfeeding - good for baby, good for mum"* (ACT Health, 2011). A 2011 impact evaluation found that 70.4% of participating services reported an improvement in their procedures for handling expressed breastmilk after attending the training. The evaluation also noted that some LDC services did not consider it their role to "pressure" mothers to breastfeed (ACT Health, 2011, p. 5).

Following a change of government , the NPAPH was abolished in 2014, and *Kids at Play* continued in a scaled-back form, with reduced funding from the ACT Government (ACT Health, 2014). The program has been renamed *Kids at Play Active Play* and focuses solely on improving educators' ability to support Fundamental Movement Skill

development (ACT Health, 2018). No current breastfeeding support programs for ECEC services in the ACT could be identified in the literature.

Support provided by an infant's LDC service must be considered alongside the support provided by a mother's workplace for her to continuing to breastfeed, to reflect the mother-infant dyadic nature of a breastfeeding relationship. Alongside the benefits of facilitating the continuance of breastfeeding, workplaces who are breastfeeding-friendly are linked to improved retention of staff, improved morale, and longer durations of service (Smith et al., 2013; Smith, Javanparast, & Craig, 2017). Depending on their employer, support may be available for women to breastfeed or express breastmilk in Australian workplaces, with employers providing lactation spaces, lactation breaks or access to flexible working practices, underpinned by a breastfeeding policy (Department of Health and Ageing, 2009a). A recent systematic review concluded that these workplace support interventions were likely to improve breastfeeding outcomes (Richter et al., 2017). However, the level of support provided by workplaces is inconsistent, and it is suggested that the most at-risk mothers, who face multiple barriers to breastfeeding, are also likely to be employed in unsupportive workplaces and industries (Smith et al., 2013).

It is worth noting that the socio-economic diversity of the largely-female Australian ECEC workforce and increasing casualisation in the sector may suggest that educators experience additional barriers to breastfeeding (Cumming, 2015; McDonald, Thorpe, & Irvine, 2018). There is speculation that an evolving cultural norm of early weaning may contribute to a limited capacity by the ECEC workforce to support mothers to breastfeed (Duncan & Bartle, 2014; Manhire, Horrocks, & Tangiora, 2012).

Breastfeeding Protection, Promotion and Support in ECEC

ECEC settings are reported as an appropriate environment for situating interventions to promote and support breastfeeding (Smith et al., 2018). The proposed pilot Breastfeeding Friendly Childcare accreditation program in the *Australian National Breastfeeding Strategy: 2019 and Beyond* formally recognises the link between ECEC

settings and breastfeeding support, and the model is based on previous studies of Australian LDC services (Department of Health, 2019; Smith et al., 2018).

The study of breastfeeding support in early childhood settings has been approached in several ways. These include study from the perspective of maternal and child health, population health and ECEC. The literature appears limited to LDC environments, with only one recent study into breastfeeding support offered by family day care services identified. Most recently, efforts to increase breastfeeding rates have been driven by initiatives to reduce rates of childhood obesity, and its associated long-term health and economic impacts (Cleland et al., 2018; Wutzke et al., 2017).

The likelihood that an infant will continue to be exclusively breastfed when their mother returns to work is influenced by the type of care used by the family. Evaluation of the South Australian Breastfeeding Program found that exclusive breastfeeding rates are lower among infants who attend formal childcare than those who are cared for under an informal arrangement (Morris, Johns, & Lawless, 2010).

Batan, Li and Scanlon (2013) established an association between the level of support provided by ECEC services for infants to breastfeed and breastfeeding duration. Because it is a correlational study, it is not clear whether women who intend to continue breastfeeding on commencing care seek out more supportive services, whether duration can be influenced by offering support or whether a third factor underpins the observed association. The association was strongest when a mother was supported to either breastfeed her baby on-site at the service or when the service supported the feeding of expressed breast milk to infants.

The right to breastfeed is protected under the Commonwealth Sex Discrimination Act 1984, and under specific legislation in all Australian states and territories (Smith et al., 2013). Australian ECEC services must not do anything that makes it more difficult for a mother to breastfeed her infant. Specifically, they cannot refuse to offer a place to an infant because they are breastfed, refuse to let a mother breastfeed on the premises, or refuse to feed an infant expressed breastmilk. A 2011-12 survey of 178 Australian childcare services found that most services were unaware of the protected right to breastfeed and that some either directly or indirectly discriminated against breastfeeding

mothers (Smith et al., 2013). While most services surveyed accommodated breastfeeding, the survey highlighted the variability of support provided.

International Findings

There is some disagreement in the international literature about what constitutes effective breastfeeding support in the LDC setting. Some researchers argue that successful breastfeeding support by ECEC services is related to aspects of the physical environment of the service, and the authorising environment provided by a breastfeeding policy (Batan et al., 2013; Calloway, Stern, Schober, & Yaroch, 2017). In these studies, elements of the environment such as providing a fridge for storing expressed breastmilk, providing a lactation space, displaying images of breastfeeding have all been identified as essential in creating a supportive physical environment for breastfeeding for educators and families. In contrast, other studies indicate that the physical environment of the service is less important when considering the broader context of the ECEC service. When focusing on the socioecological context of a service, broader supports are identified, such as of the proximity of the mother's workplace to the service, workplace flexibility, shifting social norms and reframing of the discourse on breastfeeding (Dombrowski et al., 2018; Lundquist et al., 2017; Mohd Suan, Ayob, & Rodzali, 2017).

Studies in New Zealand have focused on normalising breastfeeding within LDC settings, identifying a dominant discourse supporting the introduction of formula before commencing care. Bartle and Duncan (2010) undertook a web-based survey of parents, educators and health providers on the enablers and barriers of breastfeeding in LDC and discussed the responses in focus groups with educators and parents. The authors concluded that there is a need to reframe breastfeeding as 'the norm'. They suggest that reframing can be achieved by increasing the visibility of breastfeeding at the service, by encouraging breastfeeding mothers and educators to do so openly, providing support and acting as role models for other mothers.

Further research in New Zealand by Manhire et al. (2012) that explored educators' knowledge, attitudes and beliefs related to breastfeeding was driven by previous studies suggesting that many educators did not view breastfeeding promotion as part of their role. A survey of 86 service managers and educators found that while most educators agreed that breastfeeding was beneficial for infants, service managers noted that a lack of

knowledge about how to support breastfed infants prevented educators from providing appropriate support. These findings echoed other studies of LDC services in Colorado USA, and in Australia (Clark, Anderson, Adams, & Baker, 2008; Javanparast et al., 2012).

Breastfeeding is a cultural practice. A comparison of support provided between services in Adelaide, South Australia and North Carolina the level of support offered was reflective of broader attitudes to breastfeeding in the community (Cameron, Javanparast, Labbok, Scheckter, & McIntyre, 2012). Services in Adelaide provided more encouragement to breastfeeding mothers, were more likely to be trained in breastfeeding support and were more likely to have support resources such as brochures or booklets available for mothers. The authors contend that the lack of support offered by services in North Carolina was reflective of a broader lack of social support for breastfeeding mothers in the US. While this finding is yet to be explored more closely, it suggests caution is required when transferring international research to the Australian context, given the differing political and social contexts of breastfeeding, women and work across cultures.

Australian Findings

Studies into breastfeeding support in LDC have been undertaken in three Australian capital cities: Adelaide, Canberra and Melbourne. There is some overlap between the Adelaide and Canberra studies, which adopt a population health focus, whereas the Melbourne study was completed separately, with a stronger focus given to the interpersonal aspects of care that support breastfeeding. Emerging research on breastfeeding policies in ECEC settings in Queensland is also discussed. The description of these studies has been separated by geographic location to demonstrate the different approaches taken and highlight their strengths and weaknesses.

Adelaide

A mixed-methods study was undertaken in Adelaide in 2009-10 (Javanparast et al., 2012; Javanparast, Sweet, Newman, & McIntyre, 2013). Interviews with educators from LDC services were conducted to identify aspects of the LDC environment viewed as supportive of breastfeeding. Identified themes were used to develop a questionnaire circulated to all registered LDC services in the Adelaide metropolitan area.

In the initial qualitative phase, in-depth interviews were conducted with 15 educators from a sample of centres across the Adelaide metropolitan area, with services located in both high-, mid- and low-socioeconomic regions. The qualitative phase guided future research examining breastfeeding support in LDC settings. The analysis identified three areas for further examination: practices to support breastfeeding; breastfeeding policies; attitudes to breastfeeding; and barriers and enablers to supporting breastfeeding. The authors note a likely bias in respondents to hold a positive attitude towards breastfeeding, a theme also seen in the subsequent literature.

The subsequent cross-sectional survey explored the extent of each of the elements of support within 62 LDC services in metropolitan Adelaide, using a combination of yes/no and multiple-choice questions with opportunity for participants to provide comment. Despite a low response rate, the study found that most services indicated that they had the physical facilities to support mothers who continued to breastfeed, such as a fridge or freezer and space for mothers to sit and express or feed. A key finding that aspects of the physical environment of the service are essential to support breastfeeding have led to an approach which includes the detailed examination of these elements in subsequent studies by the authors (Smith et al., 2013; Smith, Javanparast, & Craig, 2017).

Only around half of the services indicated that they had a strategy in place for communicating with mothers about breastfeeding. The authors suggested that even small interventions, such as letting mothers know they will be supported to breastfeed at the service if they choose to, can encourage mothers to persist with breastfeeding. Participants in both phases of the study reported a perception of the role of educators to support mothers' feeding choices, rather than to actively promote breastfeeding for improved child health outcomes. The perception of a lack of influence by educators over family's feeding choices may align with previous studies examining the formation of breastfeeding intentions by mothers. These studies found many mothers make decisions about their intended duration of breastfeeding, and plans for combining breastfeeding and work, during pregnancy, well before they have entered the ECEC environment (de Jersey, Mallan, Forster, & Daniels, 2017; Wen, Baur, Rissel, Alperstein, & Simpson, 2009).

Canberra

As part of a project examining maternal labour force participation, two nested studies were conducted in Canberra in 2011-12. A case study investigated support for breastfeeding mothers at LDC services sited at the Australian National University (ANU) campus in Canberra, as part of a more extensive study surveying educators' understanding of anti-discrimination legislation related to breastfeeding (Smith et al., 2013; Smith, Javanparast, & Craig, 2017).

The survey tool used for the national survey drew upon the Adelaide studies and the identified international literature. In a sample drawn from LDC, family day care and occasional care services (n=178), most services reported that the physical facilities were adequate and that elements of support related to policy and practice domains were also in place.

The Canberra studies specifically examined breastfeeding support in the context of the university as an employer. The Canberra study used qualitative data from interviews with educators and mothers from the university to provide contextual information to the findings of their more comprehensive national survey.

Key findings were that the prevalence of breastfeeding was higher at the services located on the university campus than the national average. Mothers reported that the physical facilities of the on-campus services were sufficient, and they felt encouraged to visit their infant as needed. However, they also stated that staff support and capabilities were not evident and that they were not aware of policies related to breastfeeding at the service.

Melbourne

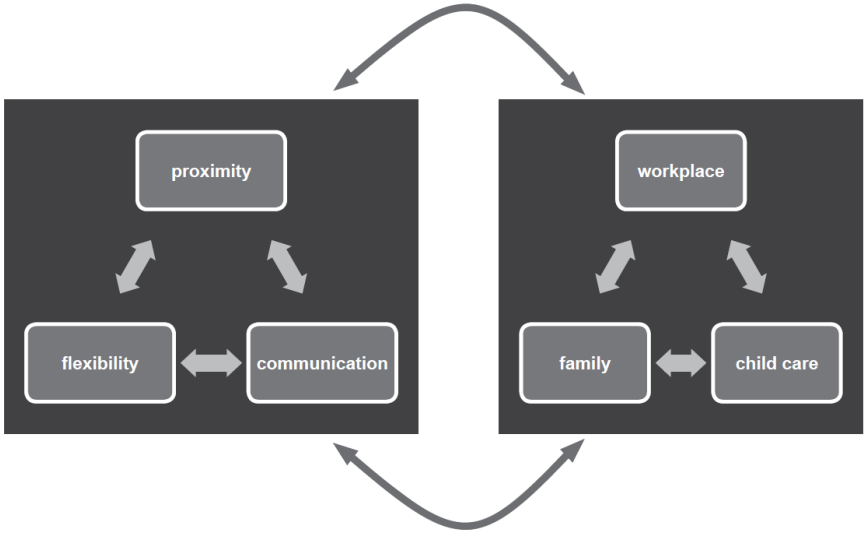
A case study of two LDC services situated within a multi-site university campus in Melbourne was conducted simultaneously, but independently, to the Adelaide and Canberra studies (Gilmour, Monk, & Hall, 2013; Monk, Gilmour, & Hall, 2013). The strength of this study is its interdisciplinary approach, with the research team drawn from midwifery and early childhood education backgrounds.

Semi-structured interviews were conducted with five educators working with infants from two services, and a focus group was conducted with mothers who had returned to work or study within the preceding 12 months. The methodology adopted in this study led to more consideration given to the specific service context than to individual elements of support.

Using Rogoff's (2003) cultural-institutional focus of analysis to examine interview data, the study found breastfeeding promotion and support was reliant upon three factors: the proximity of the service to the mother's workplace, reciprocal flexibility of service staff and families and two-way communication between staff and mothers. These themes were reflected in data from both educators and mothers, and were discussed within the context of three distinct, but related communities: the ECEC service, the mother's workplace, and the child's family. After disentangling the complexity of interrelated factors, the authors developed a model (Figure 1) to demonstrate the interaction between these factors and the interconnected communities.

Figure 1

The Inter-Relations of Proximity, Flexibility and Communication, and Workplace, Family and Child Care (Monk, Gilmour & Hall, 2013)



As the only example of interdisciplinary research on the topic in Australia, the model developed by Monk et al. (2013) provides a way forward in interrogating the interrelatedness of the enabling elements, and of each of the factors and communities themselves. The study's use of Rogoff's (2003) cultural-institutional focus of analysis supported the development of the model by focusing on the structural and cultural aspects of support while retaining background information from the other planes, such as interpersonal relationships and shared understandings.

The finding of the proximity of a mother's workplace to the service as a core factor in improving breastfeeding duration could perhaps be particular to services co-located with a workplace. It is therefore important to extend this research to community based LDCs. The findings align with the Canberra study, which also examined support provided by services on a university campus, and found mothers partly attributed their continued breastfeeding to the proximity of the service to their workplace.

The approach used in the Melbourne studies supported analysis of the findings within the context of developmental theory, in comparison to the Adelaide and Canberra studies, which adopted a more straightforward approach. In line with the Adelaide findings, a written policy on breastfeeding aided consistency among staff and supported new employees and mothers to familiarise themselves with the support provided by the service.

Queensland

Emerging research is being undertaken on breastfeeding and childcare in Queensland ECEC settings, with an initial focus on infant nutrition policies (McGuire, Gallegos, & Irvine, 2018). Using a similar approach to a previous US study, thematic analysis of 28 nutrition or infant feeding policies from both LDC and family day care settings revealed that, in contrast to broad child nutrition policies, dedicated infant feeding policies provide more information than the procedural elements of providing breastmilk to infants (Calloway et al., 2017). The authors identified themes of documentation, values, curriculum and pedagogy, supportive environments and parent partnerships.

The identified theme of partnership with parents substantiates the findings of the Melbourne studies that two-way communication is identified as crucial element of

support by educators. The authors call for services to develop and implement dedicated infant nutrition policies, reaffirming the findings of the Adelaide and Melbourne studies. The Queensland study was the first Australian study to include services from non-metropolitan areas and to include family day care services, although differences between metropolitan, regional and rural services and service types were not described in this qualitative study.

Theoretical Framework: A Sociocultural Approach to Breastfeeding

Breastfeeding practices are strongly influenced by culture. Rogoff (2003) describes breastfeeding as a natural practice, with immense cultural differences in the ways in which it occurs across the world. Infants, their mothers, other caregivers and their broader community structure the conditions and circumstances in which breastfeeding occurs.

Rogoff (2003) argues that it is inadequate to study children in isolation. As a cultural practice, the need for, and types of, breastfeeding support to be provided by Australian LDC settings is particular to the current temporal and political context. In Australia, segregation of infants and their mothers on a mother's return to work is expected. There are additional competing societal expectations on new mothers – namely, that they actively return to the workforce at the end of their maternity leave, and that they meet infant feeding recommendations.

Successful breastfeeding relies on a complex network of promotion, protection and support for both mothers and infants (Scott et al., 2006). As an infant commences at an LDC service, their mother makes her transition to the workplace. A cohort study following 587 Perth mothers over 12 months, found a failure to support either of these changes is likely to result in an early end to the breastfeeding relationship (Win, Binns, Zhao, Scott, & Oddy, 2006).

Rogoff (2003, p. 323) suggests that members of a given community undergo a process of socialisation, termed 'apprenticeship'. During this apprenticeship process, participants benefit from guided participation provided by community members and

within communal activities and events, leading to individual members' processes of participatory appropriation, which allows them to participate fully in shaping and being shaped by their community. In this context, learning to breastfeed an infant is seen not as an independent, individual process with social aspects but rather as a product of participation in a community.

Rogoff (2003) proposes three planes of activity within a group, each linked to various aspects of participation: apprenticeship (the community plane), guided participation (the interpersonal plane), and participatory appropriation (the personal plane). The planes describe the intertwining of interactions - with the group as a whole, between individual members, and within the individual member - associated with the integration of members' skills, abilities, and knowledge into the shared endeavours of the community. Rogoff's (2003) work emphasises the importance of a sense of belonging to the community and of sharing common values.

Rogoff's (2003, p. 52) foci of analysis model offers a way of examining the complexity of infant feeding support. Rogoff's three analytical lenses can be used to describe the cultural-institutional expectations, the interpersonal interactions and the individual choices related to infant feeding. Rogoff applied the approach to studies of mother-infant relationships in the context of sleep and bed-sharing, and it is well-suited to research in LDC settings, as it considers the multiple influences on a child's development within a complex system (Monk et al., 2013; Morelli, Rogoff, Oppenheim, & Goldsmith, 1992). There are multiple cultural institutions which influence successful breastfeeding, including the infant's family, the ECEC service, and the mother's workplace (Monk et al., 2013).

Sociocultural theory and systems thinking approaches support understanding of how interrelated parts, relationships and behaviours cause situations to be the way they are. To demonstrate the complex influences on participatory decision-making processes by women who return to the workplace, Monk et al. (2013) adopted Rogoff's theoretical approach and foci of analysis model to describe the interrelations of the identified factors of proximity, flexibility and communication as they relate to the workplace, the ECEC setting and the family. Placing the Melbourne study within the context of sociocultural

theory enables examination of a larger system, allowing for a better understanding of the complex problems within it.

Limitations of Current Evidence

There is a paucity of research on breastfeeding promotion, protection and support in the Australian ECEC sector. Several studies led to the conclusion that a lack of evidence on the topic presents as a barrier to designing effective interventions for the ECEC sector to contribute to improving breastfeeding rates and fulfil their role as health promoting settings for infants.

Javanparast et al. (2013) identified that a likely bias in their survey of LDCs in Adelaide, coupled with a low response rate, limits the ability to generalise findings. The researchers also note a gap in the study of other forms of formal care, including family day care and occasional care.

As noted by Smith et al. (2013), changes to the Australian policy context have occurred concomitantly with the research into breastfeeding support in LDC in Australia. The introduction of Paid Parental Leave, amendments to the *Sex Discrimination Act (1984)* and the development of the National Quality Framework provide an emerging policy context that offers scope for revisiting the findings from each of the Australian studies.

Recent research into breastfeeding support provided by Australian LDC settings has been fragmented, with the most detailed case studies confined to services affiliated with a university campus and co-located with a mother's workplace. Smith et al. (2017) acknowledge this limitation, stating that generalisability of their findings from ANU are likely only possible between comparable tertiary institutions. Participant self-selection bias and the education level of a sample from a tertiary institution setting were also recognised as potential limitations in the Melbourne studies (Gilmour et al., 2013).

Of those studies which have looked directly at the service environment, noted among most participants has been a positive attitude to breastfeeding, although this has

been assumed rather than measured. With the exception of Bartle and Duncan (2010), little consideration has been given in the literature to the formation of these beliefs and attitudes, and how they can be developed within the workforce.

These identified limitations suggest that translating findings to other services where proximity to a workplace, or where families are drawn from a lower socioeconomic population, presents a challenge and key knowledge gap.

Chapter 3

Aims of Study

This thesis extends and elaborates on existing literature, in particular, the work of Monk et al. (2013), by documenting and understanding breastfeeding support provided by a LDC setting in the ACT and provides new information about infant feeding using Rogoff's (2003) foci of analysis model.

The following research questions guided the study:

- What impact does proximity, flexibility and communication have on breastfeeding practices within the long day care setting?
- How is the proximity between a service and the mother's workplace viewed when the service is not co-located?
- What other influences impact on breastfeeding promotion, protection and support within the long day care setting?

In order to answer these questions, this timely research addressed the identified gap in the literature by examining a LDC service not co-located with a workplace - a context where proximity may not be as valued by participants. This single-site study allowed for careful examination of the model presented by Monk et al. (2013) within a different context, to develop theory and understanding about the breastfeeding support environment in Australian LDC.

Previous work by Monk et al. (2013) explored the perspectives of both educators and mothers. Given the important role of partnerships between families and educators in facilitating infant feeding, multiple perspectives were required to answer the research questions and understand the features of the service that protect, promote and support breastfeeding.

The application of a scale to measure attitudes towards breastfeeding – the Iowa Infant Feeding Attitude Scale (IIFAS) - contributes new knowledge by placing possible bias in context (De la Mora, Russell, Dungy, Losch, & Dusdieker, 1999).

Chapter 4

Methodology

This study was designed to understand the impact of proximity, flexibility and communication on breastfeeding practices within the LDC setting; to better understand the importance of proximity between a LDC service and a mother's workplace; and to identify the other influences that may impact breastfeeding promotion, protection and support within the LDC setting. This was achieved through understanding the perspectives of management, staff and families at the service at a single LDC service in the ACT.

Research Design

A qualitative case study approach was adopted to provide an in-depth study of the complex phenomenon of breastfeeding attitudes and practices among early childhood educators and families in a real-life setting. Qualitative case studies seek to gain an understanding of underlying motivations or reasons, using empirical evidence (Johnson & Christensen, 2016). Qualitative case studies take place within a real-life setting, and using multiple sources of data, such as interviews, observations or artefacts, use systematic analysis to reveal insights about a phenomenon in specific circumstances (Dahlberg & McCaig, 2010).

In the present study, the bounded system of interest is the LDC service. Following Stake's (1995) description of an instrumental case study, this study sought to understand the breastfeeding support environment of a LDC service in all its parts, with a focus on in-depth interviews with key informants in the setting.

The present study extends on research by Monk et al. (2013), by applying their approach in a new setting, applying their methodology to a service that is not co-located with a university or other workplace to facilitate further examination of the importance of proximity between a mother's workplace and her child's ECEC service.

To understand the impact of proximity, flexibility and communication and other factors on breastfeeding practices within the LDC setting, this study used multiple data collection methods, led by in-depth interviews, and supported by observations of the service environment and collection of relevant service documents. An emergent design, progress was regularly reviewed with my supervisor, including regular review of methodology, and review of data collected.

Ethics

An ethics application was submitted to the Macquarie University Human Research Ethics Committee's Human Sciences Subcommittee on 6 November 2018, with further information provided to the Subcommittee on 17 December 2018. Ethical approval was received on 15 January 2019 (Reference No 5201834806742). The letter of approval to undertake the research is included in Appendix 1, and Participant Information and Consent forms are provided in Appendix 2. No photos, videos, or sound recordings of children were collected, and pseudonyms have been used throughout this thesis.

Infant feeding can be an emotional and value-laden topic, particularly where mothers have not met their individual breastfeeding goals (Gregory, Butz, Ghazarian, Gross, & Johnson, 2015). Appropriate support pathways were recorded and included in the Participant Information and Consent forms, provided in Appendix 2.

Case Selection & Recruitment

This study used a single-instrument case study design, where one bounded case, in this instance a single LDC service, was selected and studied. A single-instrument design is well-suited to developing in-depth appreciation and understanding of a phenomenon of interest (Crowe et al., 2011).

The service was purposively selected to provide an understanding of the research question. A list of all approved centre-based education and care services in the ACT was extracted from the ACECQA national register on 14 January 2019 (N = 338). The list

was reviewed to exclude services who do not provide care to infants (out-of-school-hours care services and preschools), and who were sited in Canberra's town centres or co-located with workplaces. Co-location was defined as sharing physical facilities with a workplace, such as an office building or university campus.

Eligible services (n = 26) were invited to participate in the study by email. An initial meeting was held with the Director of interested services in person to provide further information about the study and to negotiate access to the setting. An appropriate service, Correa Children's Centre[1], was selected following consultation with the study's Supervisor. The service was purposively selected for its likelihood to provide understanding of the research questions. Located on Canberra's outskirts, Correa Children's Centre owner offered to promote access to staff and mothers to participate in an interview, and access to service documentation.

An initial meeting with the Director of Correa Children's Centre on 8 February 2019 provided background information about the service and provided a timeline for interviews, observation opportunities and provision of service documents. All data was collected between March and May 2019.

Correa Children's Centre is located within a residential outer suburb of Canberra, adjacent to the ACT's rural fringe. The service is 7km from the closest Town Centre and 28km from Canberra's Civic Centre. The Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD), which broadly measures both advantage and disadvantage, shows that the suburb has a mixed socio-economic profile, varying between Quintile 2 (most disadvantaged) to Quintile 5 (most advantaged) (Australian Bureau of Statistics, 2016)

Correa Children's Centre was established in 1993 and has been owned and operated by its current Director since 2014. The Director had previously worked at the service prior to taking over its ownership and management. The service operates five days a week, for 12½ hours a day, and has 25 approved places available for children. The service is licenced for 25 children; however, fewer are usually in attendance, with twelve

[1] Pseudonyms have been used to protect participant identity

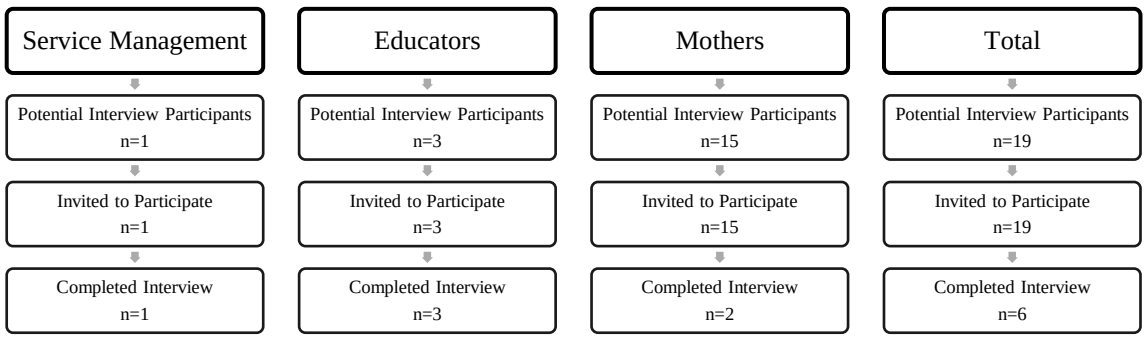
children, including two infants, at the service on the days of observation. Data was not collected on the ages of children, or whether the older children at the service were currently or ever breastfed. Depending on planned attendance, three to five educators are at the service each day, with the service operating well above mandated educator-to-child ratios. The service was last assessed in 2017 and achieved an overall rating of 'Meeting' the National Quality Standard, improving on its previous rating of 'Working Towards' received in 2014.

Participants

Following negotiation with the service's Director, in-person, in-depth semi-structured interviews were held with key informants in the setting, allowing the dynamics of the situation and service to be understood. The Director, all staff and all mothers of children attending the service were invited to participate in an interview. Educators were invited following a personal invitation from the Director. A flyer, provided at Appendix 3, was provided to mothers of children at the service inviting them to participate in an interview, scheduled either through the Director or directly. The Interviews were held with the Director, three educators and two mothers of children who attended the service. A recruitment flow chart is described in Figure 2 below.

Figure 2

Recruitment Flow Chart



Broad parameters were established to determine eligibility for interview participation. Interview participants were required to meet the following criteria:

1. Be an adult aged 18 years and over.
2. Be able to give informed consent.
3. Have sufficient understanding of written and spoken English to enable participation.
4. Be an educator who provided care for infants; hold a leadership position at the service; or be a parent of a child attending the service who has ever breastfed.

Written consent was obtained from the Director on behalf of the service, and also from individual interview participants. Scheduling of interview with educators was negotiated with the service Director. For educators, interviews took place at the service, with participation in interviews remaining voluntary for all staff. In particular, to reduce duress, educators were advised once alone in the meeting room with the researcher that they could decline to participate at that point. The contents of the interviews were not disclosed to other participants, including the service Director.

Mothers of children at the service were invited to participate in an interview, to take place either at the service or at a mutually agreeable public place. To enable the capture of data from mothers who may have ceased breastfeeding prior to commencing childcare for lack of support, and to gain an impression of the overall support environment of the service, all mothers at the service were invited to participate in the study. Being a mother, returning to work or being employed was not a selection criteria, in an effort to capture a broad range of experiences from parents of breastfed infants. A summary of participants is given below in Table 1.

Table 1

*Summary of Interview Participants**

Role	Name	Qualification
Director/Owner	Denise	Diploma Children's Services
Educational Leader	Emily	Bachelor of Education (Primary) Diploma of Children's Services
Educator	Elizabeth	Certificate III in Early Childhood Education & Care Diploma of Early Childhood Education & Care (Working Towards)
Educator	Eleanor	Certificate III in Early Childhood Education & Care (Working Towards)
Mother	Maura	
Mother	Mary	

*Pseudonyms used to protect participant identity

Interviews

Building on the work of Monk et al. (2013), educators were invited to share their experiences of supporting infants who were breastfed while in their care, and the support systems they have developed at their service for infants who breastfeed. Mothers were asked to share their experiences of care at Correa Children's Centre, and also their broader experiences of returning to work and support systems.

To support further investigation of ideas, concepts, or findings that arose while conducting interviews, an interview guide was developed to ensure systematic data collection, while providing the opportunity to explore responses further. Questions contained in the interview guide reflected the research questions to understand the importance of proximity, flexibility and communication, and further identify resources/enablers and challenges/barriers faced in supporting breastfeeding mothers. The interview guide is provided in Appendix 4.

Half of the interviews were transcribed using manual transcription, with the remaining interviews transcribed by a paid transcription service. Transcripts were provided to participants for member-checking.

Measuring Breastfeeding Attitudes

It has been hypothesised that participants in breastfeeding-related research are more likely to have a positive attitude towards breastfeeding (Javanparast et al., 2012). To provide insight into the attitude of current participants toward the process and product aspects of breastfeeding interviewees were asked to complete the Iowa Infant Feeding Attitude Scale (IIFAS). The literature identifies a number of self-report tools that can be used to measure knowledge, confidence and/or attitudes towards breastfeeding (Chambers, McInnes, Hoddinott, & Alder, 2007). The IIFAS was chosen as it is the only tool that has been tested with a group other than expectant or breastfeeding mothers, and due to its ease of completion. The language of the IIFAS allows it to be completed by groups other than mothers (Chambers et al., 2007) although the main psychometric studies have been conducted with mothers. The scale is provided in Appendix 5.

The IIFAS is a 17-question scale used for measuring attitudes towards infant feeding method (De la Mora, Russell, Dungy, Losch, & Dusdieker, 1999). This tool assesses attitudes towards both the process and product dimensions of infant feeding. Product dimensions refer to topics such as the nutritional qualities of breastmilk and infant formula, and the cost of infant feeding. The process dimensions of infant feeding include the ease of feeding, infant food intake and parental roles. The tool has previously been used in epidemiological studies of breastfeeding in Australia (Chambers et al., 2007; Cox, Giglia, & Binns, 2015), although not within the context of LDC. In a study of expectant couples, the scale demonstrated moderate to good reliability, with Cronbach's $\alpha = 0.77$ in mothers, and 0.78 in fathers, and a moderately good predictive validity, with a mother's score related to the likelihood she would be breastfeeding on discharge from hospital (Scott, Shaker, & Reid, 2004). An Australian study concluded that a score of 65 or more is considered positive towards breastfeeding, as mothers scoring over this threshold were around twice as likely to be exclusively breastfeeding their baby at six months of age, and providing any breastmilk at 12 months of age (Cox et al., 2015). A recent validation study found IIFAS scores of 67.3 (+/- 8.3) indicated a positive approach to breastfeeding, while scores of 51.6 (+/- 7.7) predicted lack of intention to breastfeed (Twells et al., 2016). The IIFAS scores of individual participants are provided in Table 2. Scores for both mothers indicated a positive attitude. Staff scores suggested half held positive attitudes – although

this is based on validation scores for mothers. Interestingly, it was the two educators who had breastfed their own child who had scores in the positive range.

Table 2

Iowa Infant Feeding Attitude Scale (IIFAS) Results

Role	Name	Own Breastfeeding Experience	IIFAS
Director/Owner	Denise	Breastfed own child	65
Educational Leader	Emily	Mixed breastfed first child, formula fed second child	52
Educator	Elizabeth	No experience of breastfeeding a child	53
Educator	Eleanor	Breastfed own child	59
Mother	Maura	Breastfed own child, supplemented with formula as needed	66
Mother	Mary	Mixed breastfed first child, breastfed second child	59

Observations of Service Environment

To place interview data in context, I undertook broad observations of the service environment during visits to the service to conduct interviews. In these visits, I sought to identify physical features of the service that were identified by Smith et al. (2013) as accommodating or supportive of breastfeeding, such as posters and brochures of government health advice, dedicated breastfeeding spaces, information for families on local breastfeeding support services, and the physical environment of the service. As breastfeeding support is complex, these observations provided an avenue for inclusion of incidental discoveries of service attributes made through visits with the service, providing key information to link together interview and service document content.

Field notes of observations were made to describe the physical environment of the service, to note contextual information and to note open discussion about the project topic. A sample of redacted field notes are provided in Appendix 6. No photographs or recordings were made during these observations. All families of children attending the service were informed that the observations were taking place through the display of a poster at the service. The poster is provided at Appendix 7.

Service Documentation

Service documentation, such as policies and procedures related to nutrition and breastfeeding, orientation information and templates and Assessment & Rating reports were collected to gain insight into how the service supports breastfeeding, with particular reference to proximity, flexibility and communication. Access to documents was negotiated with the service's Director. The service's website and Facebook page were captured on 3 May 2019 to be included in the analysis, to identify how the service communicated with mothers seeking to enrol their children at the service. Correa Children's Centre was assessed and rated by ACT Children's Education Care & Assurance (CECA) against the National Quality Standard in 2017. The Assessment & Rating report provided a rich snapshot of data on the day-to-day practices and culture of the centre during their assessment period.

As well as references to breastfeeding and infant feeding, service documentation was examined for references to communication and relationships with families, adapting practice to children's individual needs, and flexibility in staffing and routines. Broadening the focus from references to breastfeeding and infant feeding only enabled identification of other influences that may impact breastfeeding promotion, protection and support within the LDC setting. Information was triangulated with interview and service environment observation data to deepen and widen understanding of the phenomenon and address the research questions.

Data Analysis

The unit of analysis for this study is the LDC service. The collected data was analysed from a cultural-historical perspective, with reference to Hedegaard's (2008, p.58) *common-sense* level of interpretation. This technique, including the level of interpretation, were adopted to both apply the analytical methods used by Monk et al. (2013) and for its flexibility in practical use.

Hedegaard (2008, p. 58) analytical framework consists of three spiralling layers: *common-sense interpretation*, *situated practice interpretation* and *thematic interpretation.* The *common-sense* interpretive technique is a holistic examination of the raw data to identify and describe simple patterns in relationships and interactions.

Following identification and description of relationships and interactions, Rogoff's (2003) three planes of analysis tool was used to analyse the relationships and interactions from the perspective of the educator, the mother and the researcher. Analysis adopted a cultural-institutional focus, while retaining background information from the personal and interpersonal planes.

Rogoff's (2003) research on informal learning provides a foundation for understanding how sociocultural participation drives achievement of shared goals. The planes of analysis assign the interlocking roles of different types of interaction that contribute to the shared goals of the community.

Monk et al. (2013) highlighted the relationships between the interconnected social communities of the infant's family, the mother's workplace and the ECEC service, and the importance of viewing mothers and infants within this context, rather than studying them as decontextualised individuals. Adopting Rogoff's cultural-institutional focus of analysis allowed the perspectives of the educator, the mother and the researcher to be considered within the structural and cultural context of Correa Children's Centre, and, to some extent, the family and workplace.

Progress was regularly reviewed with my supervisor, including regular review of methodology. Changes were made to the approach throughout the fieldwork period, to assist in addressing the research questions, and to suit the needs of the service and participants to facilitate their participation. Observations and initial impressions were captured on-site or as soon as possible after each visit to the service in the form of field notes. Site visits were scheduled at the request of the Director. A final visit to the service provided an opportunity to experience an iterative aspect of the research process, by enabling a final discussion with the service Director, and a final round of broad observations of the service environment, providing further insight.

Chapter 5

Results

The results are reported with an opening summary of the perspectives and attitudes of each participant, followed by a description of the overall approach to analysis undertaken in this study. Findings are then detailed for each of the research questions:

- What impact does proximity, flexibility and communication have on breastfeeding practices within the long day care setting?

- How is the proximity between a service and the mother's workplace viewed when the service is not co-located?

- What other influences impact on breastfeeding promotion, protection and support within the long day care setting?

Experience With and Attitudes to Breastfeeding

Correa Children's Centre is sited within a converted house in a residential area and describes itself as sharing the benefits of family day care-like care, within a LDC environment. The service's philosophy describes the value of a home-like environment for children's holistic development. This philosophy is visible in the service's physical environment. Children are grouped, with rooms used flexibly to accommodate the service's activities and routines. The physical environment of the service endeavours to replicate the child's home environment, with couches and soft furnishings used to create warmth within the open-plan design. The separated front reception room serves as a calm sleep space. A closed front bedroom is used to create a private space if required.

Semi-structured interviews were held with the Correa Children's Centre Director/Owner, Educational Leader, Educators, and two mothers of infants attending the service. Interactions and relationships between the mothers, the educators and the Director were identified and these interactions were analysed using Rogoff's (2003) cultural-institutional focus of analysis (Monk et al., 2013).

One of the reasons for recruiting and selecting Correa Children's Centre was that the Director was keen to participate in research on breastfeeding, as she was keen to share her experience, and that of her service. It was therefore surprising that not all educators at the service shared her positive attitude to breastfeeding, as measured by the IIFAS.

Correa Children's Centre's owner and Director, Denise, was a strong advocate for supporting breastfeeding within her service. She had breastfed her own two children while they attended the service and set clear expectations that discrimination of breastfeeding mothers would not be accepted. Denise explained, *"I was very confident and comfortable in my breastfeeding, and my right to breastfeed, so it was not something that was ever questioned."*

The three educators at the service (Emily, Eleanor and Elizabeth) described broad experiences in caring for children and in breastfeeding. Eleanor described their staffing mix as *"You've got a grandmother, you've got (Emily), you've got (Denise) and the younger ones… it's a mixture. We draw off each other's strengths."* This shared understanding of their roles and strengths was echoed by the other educators.

Emily, the service's Educational Leader, described experiencing difficulties in breastfeeding her two children, choosing to use infant formula from when her first child was two weeks old, and exclusively using formula for her second child (*"I didn't feel like I missed out on anything, or I was a failure. I didn't feel like that at all."*) Emily's interview was insightful, although was difficult to analyse due to a response style that Hedegaard (2008) would query due to social desirability bias in responses. Although she demonstrated a general acceptance of a family's decision to wean without exploring barriers further ("*I think we more support the family's decision. If they come in and say that they are breastfeeding we say, yes, okay, you tell us what you need to do.*"), she conveyed her understanding of the tensions between her personal experiences, and her professional role in supporting families as an early childhood teacher (*"I don't think it's important, but I think when it happens, it should be freely spoken about. It's not a taboo subject here."*).

In contrast, Eleanor had multiple positive previous experiences of breastfeeding, having breastfed her own children (including a multiple birth) and having subsequently

supported them to breastfeed their own children. Eleanor proudly shared a story of supporting a mother to persist with breastfeeding, by exploring with the mother the reason for her initiating weaning. Eleanor gave an example where a mother answered, *"I don't want to make it difficult for you guys"*. Eleanor responded to the mother that it wasn't a burden on educators to be preparing expressed breastmilk. As Eleanor explained: *"I find that parents, they don't want to put us out."*

Elizabeth had recently qualified as an educator, having completed an early childhood education traineeship upon leaving school. While she did not have any personal experience in breastfeeding, she relied instead on the formal training she had received as part of her vocational qualification *("I think it's useful to have a formal grounding. It's very different working in childcare and actually seeing how it goes on rather than just doing the prac[tical experience placement].")*

Two mothers, Mary and Maura, volunteered to share their experiences on commencing childcare while breastfeeding. Their experiences of support from Correa Children's Centre were broadly positive; and their interviews offered additional insight into the practicalities of managing breastfeeding while commencing childcare.

Mary experienced difficulties breastfeeding her first child and was determined to continue to breastfeed her second child on her return to work. She established a clear peer support network and garnered support within her workplace for expressing breastmilk on her return to work. With previous mental health difficulties, including postpartum psychosis, and ongoing bipolar disorder, Mary carefully selected Correa Children's Centre for her child for its breastfeeding-friendly attitude. (*"My first point of discussion (with the service) was about the breastfeeding. I said, look, I'll be breastfeeding – tell me that that means here."*)

Maura's breastfeeding journey was somewhat more straightforward, however as a first-time mother, she was unsure what she was after when selecting an ECEC service for her then three-month old son, but presumed that they would be able to support her to continue to breastfeed (*"I didn't see any reason why not, because they look after babies, and babies are mostly… you know."*). This presumption was not explicitly acknowledged by the educators, however Maura felt they had a shared understanding of her goal.

Maura's intention was to continue to breastfeed her son until he was one year old and arranged appropriate workplace support to enable her to express breastmilk (*"when we started childcare that was our plan – keep with the breastmilk as long as it was working, and hopefully reach a year."*) On commencing childcare, Maura chose to supplement breastmilk with infant formula. This combination provided her with some reassurance that if she was unable to express enough breastmilk, the transition would be manageable *("We introduced one to make sure he was used to it, and that he would tolerate that formula, and also in case I ran into supply issues or it just wasn't working."*)

Overall Approach to Analysis

Common-sense interpretation, as described by Hedegaard (2008, p. 58) is a reflection of the activity setting by the researcher. The results presented in this chapter are a combination of perspectives of the researcher and of each of the researched persons, in this case, the Director, educators and mothers. Simple patterns in relationships and interactions were identified and described by analysing the interview data, service documents and fieldwork notes, in accordance with Hedegaard's (2008) interpretative approach. These patterns were considered using Rogoff's (2003) cultural-institutional focus of analysis on the three elements of proximity, flexibility and communication, to understand their impact on breastfeeding practices within the LDC setting. Participants were probed about their views on proximity in particular. Findings on these elements are presented in the following section, supported by quotes from participant interviews.

Two further influences on breastfeeding promotion, protection and practice within the LDC setting arose while using this analytical approach. These influences were: leadership and role modelling to establish a breastfeeding-friendly workplace for educators, and the role of fathers in supporting the breastfeeding relationship, particularly during the orientation period. Findings related to these additional influences are presented as they relate to their context of proximity, flexibility and communication. Individual discussion of these two further influences are presented in the Discussion chapter.

The Impact of Proximity, Flexibility and Communication

The following sections address the first research question: "*What impact does proximity, flexibility and communication have on breastfeeding practices within the long day care setting?*" Findings related to the second and third research questions ("*How is the proximity between a service and the mother's workplace viewed when the service is not co-located?*" and "*What other influences impact on breastfeeding promotion, protection and support within the long day care setting?*") are highlighted within the relevant sections, but are addressed in further detail in the Discussion chapter.

Proximity

Correa Children's Centre was specifically selected for this study because of its distance from centres of employment within the ACT. The two mothers interviewed, Mary and Maura, were employed in professional roles located in Canberra's Civic Centre. Their experiences provided the most insight into the role of the distance between their home, the service and their workplace in their breastfeeding relationship with their child. Their responses, supported by responses given by the Director and Educators to targeted questions, provide insight to address the second research question ("*How is the proximity between a service and the mother's workplace viewed when the service is not co-located?*")

Mary was questioned on her views on the proximity of the service to her home and her workplace, and its role in supporting her to breastfeed. Mary explained that she purposefully selected a service close to her home, so that she could easily use the service while working from home or when not at work, and so that her or her partner could share drop-off and pick-up responsibilities (*"I do pick-up most days. His dad does drop-off most days… I don't want that added rush of trying to get him to daycare."*) When prompted about whether this decision impacted her experience of breastfeeding, Mary explained that it makes for an easier transition for her at the end of the day: *"It takes five*

minutes, you know, to just get him in the car, drive home, get him out of the car and then I can feed him somewhere more comfortable."

Maura echoed this sentiment. When Maura returned to work, she shared parenting responsibilities equally with her husband, with each of them working four days a week. She chose a service close to home to reduce the number of hours her child was in formal care. (*"We both work split shifts… so that way they're in daycare shorter."*)

The Director and Educators were also asked to share their perceptions of the importance of the proximity of a service to a mother's workplace. Being close to a mother's workplace wasn't viewed as particularly important, and Emily said it was extremely uncommon for mothers to attend the service during the day to feed their infant (*"I can't think that we've had any come and visit to breastfeed and then leave."*). Denise recounted a single previous experience of a mother of an infant at the service who would visit the service once a day to breastfeed her infant from her workplace a 30 minute drive away. She thought that the mother sought care that would support her in the short term to continue breastfeeding, but that also met her broader expectations of quality education and care.

Educators commented that fathers were important figures in supporting an infant to accept expressed breast milk from a bottle during their transition to care. Emily gave an example of an infant who was experiencing difficulty in adjusting to being fed from a bottle in their early days at the service (*"We had one little boy who, I would say, the first two weeks, just cried and wouldn't take a bottle from us."*) The educators communicated their concerns with the family. On receiving this information, the family suggested that having the mother to attend the service may result on further stress for the infant on her subsequent departure, possibly resulting in the infant leaving care for the day (*"Mum didn't want to interfere with that, because then the baby would have wanted to breastfeed, and probably just go home."*) Instead, the infant's father attended the service to support educators to give the bottle and would leave once the child was settled. Emily explained, *"he was great, too. When we rang him up and said such-and-such, he just hasn't drunk or hasn't eaten, he'd come in within 15 minutes, give him his bottle and leave."* This finding partly addresses the third research question ("*What other influences impact on breastfeeding promotion, protection and support within the long day care setting?*")

In the context of Correa Children's Centre, the proximity of the service to the infant's home over the mother's workplace provided advantages for families. Elizabeth explained the importance of having the opportunity to establish relationships with the infant's whole family, rather than the infant's mother alone *("We try to keep a relationship with the all the families, because that's very important to us."*) The service practices family grouping, allowing infants an opportunity to spend their day alongside their sibling, and the children regularly participate in outings in their local community.

Flexibility

At Correa Children's Centre, feeding-on-demand for infants is encouraged, and the service employs a range of flexible practices to support this approach, including flexible timings, routines and staffing. At the core of the service's approach is operating with a high educator-to-child ratio, which facilitates flexible practices. As well promoting flexibility for children and families, Correa Children's Centre offers a breastfeeding friendly working environment by allowing educators to enrol their own children at the service, or to have their infants brought to them to breastfeed.

The service's approach to flexible care is rooted in the Director Denise's first-hand experience of feeding her infant while working at the centre. Denise returned to work at Correa Children's Centre after a short period of maternity leave, and looked after both her children as infants at the service (*"I nursed both my children here, with… one of our other teachers lived close by, and while her husband was off, he would bring the baby in for a breastfeed, or she would go and express… you know, whatever."*). Denise adopted a flexible approach with infant feeding, explaining *"from a planning perspective, a regular time would definitely be easier, but logically, children don't necessarily understand time."*

The service's parent information handbook explains their adaptability to families by stating: *"Although we have a timetable, our program is flexible enough to cater to the changing needs of the group from day to day, as it would be in a home environment."* All educators described flexibility in the service's routine to accommodate infants' individual feeding and sleep needs. Denise further explained: *"(if) they need to sleep on a person*

until they're comfortable to sleep on a bed, so that's what we do. Whoever their preferred educator is, that person is the child's bed for that hour, or half an hour."

Flexibility and adaptability were perhaps most visible in staffing arrangements. Family grouping and above-ratio staffing allow the service to spend further time supporting an individual infant, for a long period if required. On the day of the educator interviews, a Wednesday, there were 12 children aged birth to five at the service, and five staff. Emily gave an example of how above-ratio staffing allowed her to support infants experiencing difficulty with settling, even on busier days, and how it enabled her to focus her attention one-on-one for as long as she needed:

> *"Wednesdays are busy. I think we've got ten babies on a Wednesday, so that can be hectic. But still we manage to hold onto babies if they need to sleep in our arms. If we know we can transition them to the bed, then we do that, but if not, we hold them until they wake up."*

Fieldwork visits took place on both a Wednesday and a Friday. On both of these days, young infants appeared to be supported by educators who engaged in conversations and positive gestures with them during care routines. Educators were available to assist children to settle into the program, in particular upon arrival at the service. The service's above-ratio staffing and flexibility in staffing arrangements were also noted in the 2017 Assessment & Rating report. Educators understood that the transition between home and the care environment could be lengthy and infants were not expected to immediately adapt to institutional practices.

While educators were supported to breastfeed their infant while on the floor, a quiet, private space was also available to staff as needed. Again, above-ratio staffing ensured that supervision levels were maintained, and flexibility could be offered to breastfeeding staff. Denise explained that employing above-ratio enabled regulatory requirements for adequate supervision to be met, and how flexible staffing supported educators to balance their parenting responsibilities with the needs of the service:

> *"If she was going to breastfeed while she was on the floor, obviously we wouldn't be expecting her to be able to get up and do things, so there would always be one*

or two other staff members nearby to help…if she was comfortable to read to the children or supervise their work while she was nursing, she didn't have to remove herself from the floor, but if she wanted to, she could."

There was disagreement among the educators regarding education available on how to support breastfeeding families. Elizabeth felt that the training provided within her recently completed Certificate III in Early Childhood Education and Care on infant feeding was adequate for her role. Conversely, Denise, Emily and Eleanor could not recall having undertaken any formal training in infant feeding.

The service participated in the ACT's Healthy Children Initiative professional development program, *Kids at Play*, in 2013. Resources from the program, including fact sheets and a fridge magnet with storage times for expressed breastmilk, were available for reference by staff and families. When prompted, the educators could not recall any specific infant feeding content in the *Kids at Play* program or any other relevant professional development on infant feeding.

Communication

At Correa Children's Centre, both educators and parents stressed the importance of two-way communication, however there were nuances in these relationships, which are described below. The service's philosophy notes the importance of managing communication between educators and families, by recognising the role of the family as the child's primary carers and teachers.

Eleanor described how she communicates her willingness to support breastfeeding mothers, while also respecting the infant feeding choices of individual families by probing mothers about a decision to wean (*"It's your choice. How do you feel about it? Is there a reason? How about we give it (offering breastmilk) a go?")*

When prompted to describe the service's orientation procedures, Eleanor explained how mothers were often concerned about burdening educators with additional work with breastmilk (*"I find that parents, they don't want to put us out."*). She worked to communicate her willingness to adapt her practice to the individual infant and offered

practical examples to mothers of how she could support them to continue to breastfeed, such as adding breastmilk to cereal for older infants (*"I encourage it a wee bit without even being aware I'm actually doing that."*)

The service's parent information handbook encouraged families to spend time at the service on arrival and departure to promote positive relationships between children, staff and families and welcomes families to call throughout the day to share information with educators. Educators described how these practices enable educators to provide feedback to families each day about the volume of expressed breast milk supplied, and whether any adjustments were needed.

The broader implications of two-way communication were highlighted through Maura's experience with the service. While Maura was satisfied with her overall experience with the service, she emphasised that it was important that educators appreciated how much effort she put in to expressing breast milk while at work (*"I use my lunch breaks and my tea break to express or feed, then I get an extra 15 minute paid break as well, because I need 4 breaks a day."*)

Maura described how she spent all of her break times at work expressing breast milk, and that she noticed her mental health was declining *("I've noticed that in the last, say, three weeks, that it's really affecting my mental health, sitting in an office expressing all day."*) She was keen to reduce the amount of time she spent expressing and approached the educators to request daily updates about how much expressed breastmilk her daughter was having across the day (*"I've started to call them just to go… have you given her the bottle, so that way I can determine whether I need to express or to hold off."*) This enabled her to reduce the amount of expressed breastmilk she was providing and noted an improvement in her mental health once she was able to replace her lunchtime expressing session with a walk outdoors. Maura highlighted the importance of daily communication with educators about the volume of expressed breast milk provided, and the flow-on impact this communication had on her own health and breastfeeding experience (*"What I've started to do the last couple of weeks is just call daycare, before my last expressing break…because I don't really like doing it that much."*)

Communication with families, and between educators may be supported by a low staff turnover at the service (Cumming, Sumsion, & Wong, 2015). The service's 2017 Assessment & Rating report noted that current staff had been with the service for between two and eleven years and that the roster reflected consistent staffing arrangements. The Director explained that a familiar relief educator is employed to replace educators who are absent or to assist with staff release times. Eleanor supported this assertion: *"I think we're all familiar faces…there is no turnover of staff."*

Correa Children's Centre uses an online portfolio-based app to support communication with parents, however, only one educator referred to it, and it does not appear to be central to the service's practice. The service relies on verbal communication to communicate their support for breastfeeding. There was no clear promotion of breastfeeding observed in the service's handbook, orientation documents or visual cues within the physical environment of the service.

Many of the symbols of a supportive breastfeeding environment, as described by Smith et al. (2013) were not visible at Correa Children's Centre. Posters, stickers and other visual symbols of breastfeeding-friendly environments are intentionally not on display, aligning with the service's broader philosophy of not displaying health promotion material targeted at parents. When asked whether the display of material promoting breastfeeding would be something the service would consider, Emily explained:

> *"I don't know whether it's pressure for families; it's probably more not putting up every piece of poster we get. There are a lot of things we could put up. This used to be a Montessori centre, so there are not a lot of posters for parents that get put up."*

When probed further about whether the service would display a 'Breastfeeding Welcome Here' sticker at their entrance, Emily added, *"not to say that we wouldn't put a sticker up… but to me that's very, like, tick the box."* Elizabeth felt it was important that the sticker wasn't displayed, so that *"parents don't feel ashamed if they're not breastfeeding."*

In her interview, Denise was able to demonstrate insight that her experience of breastfeeding is not shared by all mothers. She explained a reticence to display visible symbols promoting breastfeeding within the service, both because she considered them unnecessary, and because of a potential to cause harm to mothers who had not reached their breastfeeding goals: *"(it) would be irresponsible for someone in my position to be pushing any sort of values that would cause families to feel that way."*

There were limited infant-specific references in Correa Children's Centre policy documentation, which was perhaps congruent with challenges previously identified in applying the EYLF curriculum to this age group (Davis et al., 2015). The only reference to breastfeeding made in the service's parent information handbook was a single reference for families to bring formula or expressed breastmilk as required. Information for families on sleep and settling routines were similarly absent. Descriptions of transitions, routines and programming largely apply to older children. This relative invisibility of infants is also noticeable in the service's Assessment & Rating report. Under Standard 2.1 ("Each child's health is promoted"*)* on the topic of nutrition, described safe food handling only, with no reference to feeding practices or active promotion of children's health. Similarly, under Standard 2.2.1 ("Healthy eating is promoted and food and drinks provided by the service are nutritious and appropriate for each child.") the assessor's findings solely describe the weekly displayed menu for older children, with no reference to breastfeeding, formula or modified textures for younger children.

There was no dedicated breastfeeding policy for the service. Elements of their supportive practice are captured within other policies. Process elements of handling expressed breastmilk are well described within the service's *Food, Nutrition and Beverage Policy*, and elements of wraparound support are described in the service's *Relationships with Children Policy*.

Denise explained that the development of a dedicated breastfeeding policy was unlikely to change the service's deeply embedded day-to-day practices. An external consultant had assembled the service's policies, and Denise was reluctant to adjust them beyond necessary, as the policies had met the required standard at their most recent Assessment & Rating. To Denise, individualised support was rooted in her philosophy, explaining:

"We have, um, breastmilk procedures, and milk warming procedures as part of our food safety, and the rest of it is just… us, and what we do. We haven't really written anything down, in terms of a breastfeeding policy. We just support families to do what's right for them, so long as it's in the best interests of the child."

The topics of leadership and role modelling to establish a breastfeeding-friendly workplace for educators were further explored with participants to provide insight into the third research question ("*What other influences impact on breastfeeding promotion, protection and support within the long day care setting?*") Denise had previously explored ways to formally embed her support for breastfed infants, beginning with an enquiry to the Australian Breastfeeding Association about their Breastfeeding Friendly Workplace accreditation scheme. However, she found the cost of purchasing the resource materials and applying for accreditation to be prohibitive for her small business, and described how achieving the accreditation would be unlikely to influence her practice:

"It was thousands of dollars to get on board, and I just couldn't afford it at the time. So, we just decided that we'd make our place breastfeeding friendly. Do whatever we could to support families who wanted to continue breastfeeding."

Denise acknowledged that there is room for improvement in the service's policies to formally document their practices and to provide clarity about how breastfeeding support is offered to employees and mothers. She was committed to creating and maintaining a culture of support for educators and mothers who wish to continue breastfeeding (*"We just make it work."*)

Chapter 6

Discussion

Rogoff's (2003) three foci of analysis provide a useful method for 'making sense' of the intersecting elements of breastfeeding support. Cultural institutions examined in this study were the ECEC service, the family and, to a lesser extent, the mother's workplace. Particularly within the domain of communication, considering individual and interpersonal aspects of cultural-institutional practices remain essential to understanding breastfeeding as a cultural practice.

The use of an instrumental case study methodology was well suited to understanding what works well within the service, providing insight into the complexity of the service's practice and allowing refinement of the theory presented by Monk et al. (2013). The use of *common-sense interpretation*, drawn from Hedegaard's analytical framework, provided insight into simple patterns and relations from the case, however, a more extensive study may benefit from deeper layers of interpretation, extending on the limited *situated practice interpretation* presented in this thesis through to *thematic interpretation* (Hedegaard, 2008, p. 57)

This thesis offers an examination of the features of breastfeeding promotion, protection and support at a small suburban Australian LDC service. Building on the work of Monk et al. (2013), this study examined the relationships between proximity, flexibility and communication and breastfeeding support practices, with particular reference to how proximity between a LDC service and the mother's workplace is viewed when the service is not co-located. Specifically, this study sought to address three research questions:

- What impact does proximity, flexibility and communication have on breastfeeding practices within the long day care setting?

- How is the proximity between a service and the mother's workplace viewed when the service is not co-located?

- What other influences impact on breastfeeding promotion, protection and support within the long day care setting?

This section provides an in-depth discussion of the findings presented in the previous chapter, organised in the order of the research questions. In addressing the third research question, this study identified two other influences on breastfeeding promotion, protection and support during the research: leadership and role modelling to establish a breastfeeding-friendly culture for educators, and the role of a child's non-lactating parent or other caregivers in supporting the breastfeeding relationship, particularly during the orientation period. This section also outlines the contributions of this research to the field of ECEC and notes both the study's limitations and future directions for research.

Revisiting Monk et al.'s (2013) Model in a Non-Proximal Context

This study was based on the model of interrelated characteristics of workplace-based LDC services developed by Monk et al. (2013) (see Figure 1). To address the first research questions ("*What impact does proximity, flexibility and communication have on breastfeeding practices within the long day care setting?*") elements of proximity to a mother's workplace, flexibility of centre staff and two-way communication were examined in detail. To address the second research question ("*How is the proximity between a service and the mother's workplace viewed when the service is not co-located?*"), particular attention was given to exploring the views of participants on proximity and breastfeeding, in their non-proximal context.

Proximity

In contrast to Monk et al.'s (2013) findings, the proximity between an ECEC service and a mother's workplace was not seen as a particularly important factor in supporting breastfeeding by the staff and mothers at Correa Children's Centre. Instead, the benefits of proximity between the service and the family's home and the father's workplace were highlighted by participants.

Previous studies have described the value of co-locating LDC services with workplaces to promote and protect the breastfeeding relationship between mother and

infant within some families (Smith et al., 2013, 2017). When feeding directly from the breast, co-location reduces the amount of time a mother is separated from her infant. However, the mothers interviewed at Correa Children's Centre were able to successfully breastfeed their infants using expressed breastmilk on their return to work.

The culture and attitudes of mothers' workplaces significantly influenced their expectations of their ability to combine breastfeeding and childcare. Both mothers in the present study worked in the public service, and they both expected that their workplace would offer flexible conditions. Established family-friendly practices at each of the interviewed mothers' workplaces facilitated their continued provision of breastmilk to their infants, through regular breastmilk expression. Enabling factors for the mothers interviewed included paid lactation breaks, dedicated breastmilk expressing facilities, and flexible working conditions, such as an option to work from home or flexible scheduling. Both mothers interviewed had access to flexible work scheduling for both themselves and their partner, which enabled them to select work commencement and departure times within a range set by their employer and reduce the number of hours their infant was away from their family.

If a mother can overcome workplace barriers to expressing breastmilk, and not need to feed directly from the breast, a wider choice of ECEC services may be available to her. Other benefits may be drawn from choosing a service closer to the family's home, such as the involvement of the child's father or other caregivers, and longer-term relationships within the community. The length of time an infant is dependent on either breastmilk or infant formula is relatively short in the wider context of a service-family relationship that may extend to the child commencing school.

The strength of this current study is that it was able to gain insight from breastfeeding mothers who had selected an LDC service for reasons other than proximity to their workplace. The mothers' identified other priorities in selecting a LDC service, with a focus on their long-term relationship with the service, and minimising the risk of discontinuous care due to a change in employment circumstances. While these findings differ from the identified previous research on breastfeeding and ECEC research in Australia, they are consistent with other studies describing parent's reasons for choice of

formal childcare setting (Breitkreuz, Colen, & Horne, 2019; Neilsen-Hewett, Sweller, Taylor, Harrison, & Bowes, 2014; Pilarz, 2018).

These findings suggest that the proximity between an infant's childcare centre and the mother's workplace as described by Monk et al. (2013), may only be one aspect for consideration within the context of the infant's broader family and community. Within the described model, the element of proximity could be expanded to consider the distance between the ECEC service and a combination of the family's home, the father's workplace, and the mother's workplace.

Flexibility

At the core of Correa Children's Centre approach to supporting infants was high educator-to-child ratios within a mixed aged group setting, and a firm understanding of the practicalities of feeding infants on-demand. Working above mandated ratio requirements allowed educators more one-on-one time with individual infants, with an informal primary caregiver approach adopted at times. Supporting one-on-one time between infant and educator allowed each infant's individual routine, including arrival and departure, feeding, sleeping, and changing, to be conducted uninterrupted, promoting trust and attachment.

The calm and casual environment at Correa Children's Centre echoed the *"relaxed and unhurried environments"* described by Monk et al. (2013, p 123). Similarly, Correa Children's Centre provided a range of locations for mothers and educators to feed infants, with varying levels of comfort and privacy.

Educators balanced their encouragement of breastfeeding with a desire to support individual mothers' choices in how they feed their infants. They managed this by informing families during orientation that they would adapt their practice to meet the individual child's needs. Practical examples of flexible practice offered by service staff included using fathers or alternative caregivers to offer a bottle, adding expressed breastmilk in cereal for older babies and holding infants who fall asleep during a feed for at least the duration of their nap.

In place of formal training, educators primarily reflected on the philosophy of the service in determining how to best offer infant feeding support to families. The educators' contrasting personal experiences of breastfeeding illustrates potential difficulties in developing a 'breastfeeding-friendly' culture and establishing a consensus on how a service can best support a family to continue to provide breastmilk for their infant. In turn, working towards a shared understanding of individual families' breastfeeding goals may be difficult.

The family-oriented work environment of Correa Children's Centre supported educators to breastfeed their own children and allowed educators who are parents to also attend to their family responsibilities. Educators were encouraged to have their own children enrolled in the service and were provided with time and space to breastfeed or express for their infants. Flexible room groupings meant that ratios were able to be maintained while a breastfeeding educator was feeding her infant, and staff assisted each other. Informal arrangements were also used by the service to support educators who are parents to attend to family responsibilities. Telephone access was readily available for educators, allowing them to reach their children and their caregivers at home. This finding was unexpected, as it demonstrated that although the service wasn't based at a workplace, the service's provisions for staff recognised the proximity principles of a workplace-based LDC with respect to breastfeeding, and more closely links with the findings of Monk et al. (2013). This conflict demonstrates that the Director also recognises the value of providing opportunities for close proximity of mother and infant and highlights the complexity of designing individualised support systems for breastfeeding mothers and infants.

These findings highlight the challenges that large organisations may face when attempting to create a culture of support for breastfeeding. While Denise's strong leadership and personal breastfeeding experience supported the development of a breastfeeding-friendly environment at Correa Children's Centre, other services may be unable to create a supportive environment inorganically. Educators are not always supported to continue to breastfeed their own infants when returning to work. With educators at some services perhaps less likely to reach their own breastfeeding goals, opportunities for peer-sharing of knowledge about support strategies may be limited.

Communication

The participants in this study echoed previous research highlighting the importance of effective two-way communication between the service and the family (Monk et al., 2013). Both educators and mothers emphasised that communication on infant feeding needed to be individualised and that each family was different in their communication needs. The careful language used by staff at families' first contact with the centre sought to help mothers seeking to enrol in the service to understand that they would be supported to continue breastfeeding, but that their individual feeding choices would also be respected. This careful balance of advocacy, support and respect continued throughout the educators' relationship with the family through orientation and beyond, but perhaps inhibited active participation towards a mutual goal.

Support measures at Correa Children's Centre were largely initiated by mothers. With reference to Rogoff's (2003) concept of guided participation, facilitating or limiting access to information on breastfeeding at the service may influence whether the topic is raised at first contact. Individual skills, understandings and competencies are developed through sociocultural participation. Both mothers who participated in the study were motivated to continue breastfeeding on their return to work, and initially raised the topic of infant feeding with the Director at orientation. It is not clear from the findings how a mother with less support from her partner, or who was equivocal about breastfeeding would be motivated by the service to continue breastfeeding on her return to work. A lack of dedicated policy, promotional material, and specific information in orientation materials may not prompt a mother to raise the topic of infant feeding on initial contact with the service. Integration of abilities, skills and knowledge into a shared endeavour of supporting breastfed infants may not occur in the absence of well-developed interpersonal interactions.

Correa Children's Centre staff were united in the view that stickers and posters to promote breastfeeding were generally provided to 'tick a box' and had the potential to make parents feel guilty for not breastfeeding. Further research needed to see if this view is prevalent in LDC and if so, there may be a need to work more closely with LDCs to

find a more acceptable way to let parents know the service welcomes breastfeeding families.

A perpetual health promotion dilemma for educators is that they are balancing their roles as advocates for children's health and wellbeing with their responsibility to respect decisions made by parents as a child's primary caregiver. The *Australian National Breastfeeding Strategy: 2019 and Beyond* draws specific reference to two assessment items in the NQS: that services who care for infants are encouraged to *"support families' choices regarding infant feeding, including breastfeeding and bottle feeding"*; and to *"support families who choose to breastfeed their child while they are at the service"* (Department of Health, 2019a, p. 19). The specific wording of these items suggest that a decision has been made on how an infant will be fed prior to their engagement with the service and that the decision must be supported by educators. In turn, this may unintentionally limit the willingness and capacity of educators to engage with or positively influence decisions on infant feeding. The educators interviewed for this thesis presented to mothers that they were open to all feeding options, and were part of decision-making on infant feeding, in a delicate, nuanced way, which they tailored for each situation. It follows that any accreditation scheme for breastfeeding-friendly childcare or health promotion initiative must avoid 'tick a box' approaches that may unintentionally limit the role of educators.

Service policies emphasised the importance of developing meaningful relationships with families, however, a gap between policy and practice on development of shared understanding between the mother and the educators was evident. Both Mary and Maura had mutual agreement of their breastfeeding goals with their partner, but not with the LDC service. Both mothers worked with their partners to undertake actions that would support them to maintain their breastmilk supply and manage their return to work. With their partner, they regularly revisited their breastfeeding goals, and actively collaborated to work towards them, negotiating transitions and workload. The same level of participation and collaboration was not evident in the mother's relationship with the educators, although there was mutual acknowledgement of a broad goal to continue to breastfeed.

This praxis gap may be attributed to the use of outsourced policies and procedures by the service. These documents were purchased with the intention of meeting regulatory obligations. The service's lack of distinct quality assurance prompts for breastfeeding, and, perhaps more widely, for infant practice, may be a symptom of the 'relative invisibility' of infants and toddlers in the national curriculum (Davis et al., 2015).

From an interpersonal perspective, each family adopted a different approach and required varying levels of contact with individual educators. Individual infant feeding plans were not in use at the service, however the service's policies on relationships with families aimed to ensure shared knowledge about the infant's feeding needs remained current. Short conversations at the end of each day with the rostered educator, supplemented by occasional phone calls during the day, aimed to assist mothers to understand their infant's milk intake, and to plan their provision of expressed breastmilk accordingly. In general, the depth of conversation with mothers remained at a procedural level, rather than collaborative.

Proactive day-to-day communication from services regarding their infant's expressed breastmilk intake was valued by mothers, as it helped them to plan their expression breaks at work. Reducing the amount of time spent expressing breastmilk was a common goal between the mothers and achieving it may have a positive impact on mothers' mental health and broader experiences of returning to work. Having a dynamic understanding of the amount of expressed breastmilk required by their infant may help mothers reduce the amount of time they express breastmilk. Further collaboration between the mother and the service, such as coordinating the introduction of solid food, or working together to improve start- and end-of-day transitions, may enhance shared understanding.

Reframing Monk, et al.'s (2013) model element of two-way communication as 'collaboration' may better describe the benefits of working towards a shared understanding or common goal. While effective communication is a key ingredient of a successful, productive collaboration, Correa Children's Centre presents an example of the use of procedure-based, two-way communication, with an absence of authentic collaboration with mothers.

These findings are important in the context of the design of a pilot breastfeeding-friendly childcare accreditation program, as referred to in the *Australian National Breastfeeding Strategy: 2019 and Beyond* (Department of Health, 2019b). Correa Children's Centre is representative of small owner-operated LDC services, who may have the agility to adopt accreditation and programs easily, but whose practice is ultimately underpinned by the values of the individuals in the service, rather than driven by written policy or a published philosophy. A checklist approach to assessing breastfeeding support is likely to place educators in a passive role of conduits for a population health initiative, rather than supporting them to build meaningful connections with families and is a likely contributor to observed tension between policy and practice. Demonstrable visible symbols of breastfeeding support may not necessarily correlate with a supportive service philosophy, high quality relationships with families, or responsive practice with infants. As such, routines, approaches and relationships may be more reliable indicators of how breastfeeding is valued within the service, but are not as easily measured.

Other Influences on Breastfeeding Promotion, Protection and Support

Two further influences on creating a 'breastfeeding-friendly' childcare culture were identified during the research: leadership and role modelling by senior service staff, and the role of a child's non-lactating parent or other caregivers in supporting the breastfeeding relationship, particularly during the orientation period. These findings, detailed in the following section, address the third research question ("*What other influences impact on breastfeeding promotion, protection and support within the long day care setting?*")

Breastfeeding-Friendly Work Environments for Educators

Correa Children's Centre was an example of a breastfeeding-friendly work environment for educators. This demonstrates that the concept of maintaining proximity between mother and infant to support the continuation of breastfeeding was also understood and acknowledged in this setting, perhaps conflicting with the broader study findings. All participants were clear that the breastfeeding-friendly culture at Correa Children's Centre was led by the Director, and informed by her personal and professional

experience, values and deeply held beliefs. The Director's own experience of working as an educator and breastfeeding provided her with the knowledge of how to create a supportive workplace for early childhood educators who are breastfeeding.

Educators were able to enrol their infants in the service and were provided with both the physical facilities and flexibility in rostering to breastfeed. The service lacked formal policies documenting their approach; however all employees were clear when prompted that they would feel supported to breastfeed while working at the service. It was not financially viable for Correa Children's Centre to access formal assessment to become an accredited 'Breastfeeding Friendly Workplace' through the Australian Breastfeeding Association.

A lack of formal training or professional development on breastfeeding topics meant that participants relied on peer-to-peer learning to develop their knowledge of providing breastmilk to infants and supporting families. This reliance on peer-sharing may mean that the breastfeeding experiences of educators themselves are a major contributor to the breastfeeding support culture of individual services. Support for breastfeeding educators may be a key component of developing a breastfeeding-friendly culture within ECEC environments.

The ECEC workforce in the ACT is becoming increasingly casualised, suggesting educators have limited access to paid maternity leave and lactation breaks, which are both factors associated with improving breastfeeding rates (ACT Government, 2017; Tawia, 2012). Overcoming workplace barriers to breastfeeding and breastmilk expression for early childhood educators in the ACT may have a positive impact on the development of a breastfeeding-friendly culture across the sector by improving knowledge about practical support for breastfeeding mothers and infants.

The Role of Fathers and Other Caregivers

The involvement of fathers in managing an infant's transition to care was a recurring theme. Adopting a cultural-institutional focus to examine the transition to ECEC for breastfed infants supported the exploration of relationships beyond the mother-

infant dyad and educator relationship. In this study, fathers were defined as a male parent within the context of a parenting partnership; however, the descriptions of their role in supporting the breastfeeding relationship could be expanded to include other caregivers, including a non-lactating parent. Fathers were able to provide support to educators in offering bottles to infants and were a source of comfort and familiarity for infants.

A particular feature of the experience of breastfeeding families at Correa Children's Centre was the close involvement of fathers in their infant's transition to the service. In this study, fathers modelled for educators how to offer a bottle to their infant, were on-call to assist with difficulties with feeding and settling and took part in the transitions and routines at the beginning- and end-of-day. This finding suggests that the use of a centre close to an infant's home, rather than the mother's workplace, may promote father-inclusive practice. A limitation of both this study, and the previous study by Monk et al. (2013) is that mothers interviewed widely relied on support from their family. Future research may improve understanding about how mothers without partners or family members close-by value proximity between their workplace and their child's ECEC service.

Broadly, this study suggests that the involvement of fathers in orientation to the setting in this practical, meaningful way may support a successful transition for an infant who is fed expressed-breast milk. In turn, this may support fathers' familiarity and comfort with the setting, leading to improved future engagement. Given the significant influence that fathers may have on a mother's decision to initiate and continue breastfeeding, the involvement of fathers in supporting their breastfed infant's transition to an ECEC environment requires further exploration.

Limitations and Future Directions

In comparing the educator's interview responses to their responses to the IIFAS questionnaire, the IIFAS scores and interview responses appeared consistent; however the tool provided limited other insights. Further validation of the tool is required to better

establish its validity in ECEC contexts. The IIFAS scores from this study may be of use for further research, and the results are provided in Table 2.

Future directions for research, identified through this project, include further exploration of the role of partners in providing support for breastfed infants attending ECEC services; interrogation of the impact of working conditions of early childhood educators on their own infant feeding experiences and support practices and better understanding the value of proximity for single mothers. Translation of this research into other ECEC environments, such as family day care settings, or large providers may yield further insight into how mothers are supported to continue to breastfeed on commencing childcare.

Chapter 7

Conclusion

To a large extent, this study has replicated the findings of Monk et al. (2013), by demonstrating that breastfeeding support in Australian LDC settings is reliant upon a complex interplay of factors of proximity, communication and flexibility. However, by exploring these factors within an urban fringe environment, this study suggests that the proximity to a mother's workplace may not be as crucial as suggested by previous research, as other family members may be better placed to assist with orientation and acceptance of a bottle by the infant. Through this study, two adjustments to Monk et al.'s (2013) model are proposed:

1. Expanding the element of 'proximity' between the ECEC service and the mother's workplace to also include both the family's home and the non-lactating parent or other caregiver's workplace.

2. Reframing the element of two-way 'communication' as 'collaboration', to better describe the benefits of working towards a shared understanding or common goal.

This study echoes the finding of Monk et al. (2013) that mutual trust is established through initial interactions with a service. Infant feeding provides an opportunity for services to develop honest, reciprocal relationships with families, grounded in two-way communication and mutual flexibility. The length of time an infant in exclusively breastfed is relatively short within the context of a multi-year attendance at a LDC service, and the choice of a service close to an infant's home may not necessarily impact breastfeeding duration if the infant's mother can overcome workplace barriers to expressing breastmilk. The ability of an infant to continue to be provided with breastmilk at an ECEC service is inextricably linked to the support offered by the mother's workplace.

Fathers may play an important role in reaffirming a mother's decision to continue breastfeeding when commencing childcare, and in offering practical support for the

transition. Valuing father's contribution to infant feeding, and their role in supporting their infant's orientation to the service provides an opportunity for early engagement with fathers and may promote broader father-inclusive practice. Further examination of the systems that enable a child's non-lactating parent or caregiver to assist their partner to continue to breastfeed may yield further insight into how the transition to work and ECEC can be better supported by them.

Reframing Monk et al.'s (2013) model element of 'communication' as 'collaboration' may be a better descriptor of working towards a shared understanding or a common breastfeeding goal. While interaction and communication are important features of educators' relationships with families, a richer and more complex collaboration is likely to be beneficial to mothers. Understanding each other's attitudes and expectations for infant feeding is central to the relationship. The demonstrated gap between service policy and educator practice in this case study places the burden on mothers to initiate and drive adjustments to practice required to meet her infant's needs.

The development of a breastfeeding-friendly culture at individual ECEC services may be linked to improving working conditions for educators who are also mothers. This may include improving access to paid lactation breaks, flexible scheduling and providing space for educators to breastfeed their own infants or express breastmilk. Broader breastfeeding policy initiatives did not appear to be supporting Correa Children's Centre's staff to develop a breastfeeding-friendly environment. There was limited evidence of benefit from pre-service education or professional development, which left staff in a position of drawing on their own experiences to support families, contrasting sharply with evidence-based support available to educators to offer nutrition advice for older children. Given that LDC has been identified as a key context for providing breastfeeding support, this gap must be addressed to increase the rates of Australian mothers continuing to breastfeed on their return to work.

Further research is needed to understand the role of fathers in providing support for breastfed infants attending ECEC services, to understand the impact of working conditions of early childhood educators on their own infant feeding experiences and support practices, and to understand the experiences of single mothers who breastfeed.

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Appendix 1 (page 69) removed from Open Access version as they may contain sensitive/confidential content.

Appendix 2 (pages 70-75) removed from Open Access version as they may contain sensitive/confidential content.

Appendix 3 (page 76) removed from Open Access version as they may contain sensitive/confidential content.

Appendix 4

Interview Guide

Interview Guide

Introduction

- Introduce self
- Length: 30-90 minutes
- Primary goal: To see things the way interviewee sees them and understand what is important to interviewee about breastfeeding and childcare. Encourage use of examples where possible, and to indicate whether positive, negative or neutral experience
- Confirm consent to participate in interview
- Complete Iowa Infant Feeding Attitude Scale Questionnaire

Research Question	Key Concepts	Interview Questions		
		Mothers	Educators	Director
What factors contributing to breastfeeding support are viewed as important within the long day care setting?	Pre-contact, contact and orientation	• Can you tell me about your breastfeeding relationship with (your child)? • Before you gave birth to (your child), how long did you expect to breastfeed for? • Did you face any specific challenges? • Are you currently breastfeeding? If not, what contributed to your decision to wean (your child)? • Did you supplement with formula at all? How did this work for you? • When you were seeking a childcare place for your first child, what features were you looking for? Was breastfeeding a priority? • What were some of the things (the service) does that particularly supported you to continue breastfeeding?	• Could you tell me about what happens when a family first contacts your service to ask about a place for their baby? • Could you tell me about how you manage their orientation? • Do you develop infant feeding plans when a baby is starting at the service? What kinds of things are in there?	• Have you got any information in your orientation pack about breastfeeding (or a statement that mothers will be supported to breastfeed if they choose to)? • Could you tell me about what happens when a family first contacts your service to ask about a place for their baby? • Could you tell me about how you manage their orientation? • Do you develop infant feeding plans when a baby is starting at the service? What kinds of things are in there?
	Commencement experience	• Can you tell me about your experience of commencing childcare and returning to work with (your child)? • Would you consider your experience with the service positive or negative? • Did you feel supported by the service? • Did you face any challenges in settling into childcare? • When you think of your experience of breastfeeding and childcare, what stands out in your mind?	• Could you tell me about the babies at the service at the moment? • What kind of routines do you have for babies at the service? • Could you tell me a bit about how you manage their sleep times? • (If they have an infant feeding plan) How often do you review it with the family? What prompts a review?	• Could you tell me about the babies at the service at the moment? • What kind of routines do you have for babies at the service? • Could you tell me a bit about how you manage their sleep times? • Are you aware of any toddlers who have breastmilk at the service?(If yes) Is there anything you do to support them? • (If they have an infant feeding plan) How often do you review it with the family? What prompts a review?

	Service environment	• Would you consider (the service) to be an environment that supports breastfeeding? • Do you ever breastfeed at the service? Where do you prefer to breastfeed? • Is privacy important when feeding your baby at the service? Why/why not? • What could services do to support mothers to breastfeed more?	• Would you consider (the service) to be an environment that supports breastfeeding? • Do any mothers breastfeed at the service? Where do they prefer to breastfeed? • Do you think privacy is important to them when they're feeding your baby at the service? Why/why not?	• Would you consider (the service) to be an environment that supports breastfeeding? • What kinds of things do you have in the service to support breastfeeding? • Are any of the staff currently breastfeeding?
What other influences impact on breastfeeding promotion, protection and support within the long day care setting?	Protection	• Did (the service) do anything to make it more difficult to continue to breastfeed your child? • Did your workplace do anything that made it more difficult to continue to breastfeed your child? • Did your baby refused their bottle of expressed breastmilk at all while at the service? What happened?	• Have you heard about any staff returning from maternity leave who wanted to continue to breastfeed their own baby? What happened? • If a mother told you that she was concemed that she wasn't providing enough milk for her baby, how would you respond? • How does your service ensure that expressed breastmilk is safely stored? • Have you ever had a baby who refused a bottle of expressed breastmilk? What happened? • Have you ever had an experience of a mother providing a home-made formula or using a plant-based alternative? Could you tell me more about it? • Have you ever been concerned that a breastfed baby isn't getting enough milk? What happened?	• Breastfeeding is protected under state and federal anti-discrimination legislation. How does your service ensure that breastfeeding is protected? • Have you had any staff return from maternity leave who wanted to continue to breastfeed their own baby? What happened? • If a mother told you that she was concerned that she wasn't providing enough milk for her baby, how would you respond? • How does your service ensure that expressed breastmilk is safely stored? • Does your service provide infant formula? • Has your service ever provided samples of infant formula?
	Promotion of healthy infant feeding.	• Did you notice anything at the service that promoted breastfeeding? (such as 'Breastfeeding Welcome Here' sticker, posters, books, etc) • (If the service has a breastfeeding policy) Did the service share their breastfeeding policy with you when you started at the service?	• Would you describe your service as actively promoting breastfeeding? Why/why not? • Would you consider it to be an educator's role to promote breastfeeding? • If a mother came to you after, say, a few weeks at the service, and said that she was considering stopping expressing and introducing formula, how would you respond to her? • Have you had any specific training in breastfeeding? Could you tell me a bit more about it?	• Have your staff had any specific training in breastfeeding? Could you tell me a bit more about it? • Does your service have a breastfeeding policy? Could you tell me about how it came about? What kind of things are in it? • If a mother came to you after, say, a few weeks at the service, and said that she was considering stopping expressing and introducing formula, how would you respond to her?

			• Does your service have a breastfeeding policy? (If yes) Did you have any input into it?	• Are you aware of any other supports in the community available for families to access? What are they? Do you refer parents to them? • How would you support a mother who indicates she is experiencing problems with breastfeeding? • If a mother of a 3 month old arrived at the service and said had offered her baby solids for the first time on the weekend, how would you respond to her?
	Development and reinforcement of a breastfeeding culture.	• How do you feel about your breastfeeding experience with (your child) ?How does your partner or family support you to continue to breastfeed? • Outside of the childcare service, where else did you find support and information on commencing childcare while breastfeeding? • Have you accessed flexible working arrangements at all? • How does your workplace support you to continue breastfeeding?	• Are you aware of any other supports in the community available for families to access? What are they? Do you refer parents to them? • How would you support a mother who indicates she is experiencing problems with breastfeeding? • If a mother of a 3 month old arrived at the service and said had offered her baby solids for the first time on the weekend, how would you respond to her?	• Do you consider yourself supportive of mothers visiting their babies to breastfeed? Why/why not? • Could you give me an example of a time it (worked well/didn't work so well) that a mother visited the service to breastfeed her baby?
What impact does proximity, flexibility and communication have on breastfeeding practices within the long day care setting?	Proximity to workplace	• Could you tell me a little bit about where you work? Is it close to the centre? • Was location important when you were choosing a childcare centre? Why/why not? • Would you be able to visit (your child) to feed at (the service)? Why/why not? • (For mothers who visit the service to feed) Could you walk me through how your visit works? • Do you think you would have done anything differently if your workplace was closer to/further away from (the service)?	• Do you consider yourself supportive of mothers visiting their babies to breastfeed? Why/why not? • Could you give me an example of a time it (worked well/didn't work so well) that a mother visited the service to breastfeed her baby?	• For mothers who visit the service to feed, is it better to visit at a regular time, or is there some flexibility? Which do you prefer? • As time goes on, how do you make sure you're providing the right support?
	Flexibility in routine	• How would you describe the educators' attitude to mothers coming in to breastfeed? • Have you considered visiting (your child) during the day to feed? • (For mothers who visit the service to feed) Is it better to visit at a regular time, or is there some flexibility? Which do you prefer? • As time went on, how did your support needs change?	• For mothers who visit the service to feed, is it better to visit at a regular time, or is there some flexibility? Which do you prefer? • As time goes on, how do you make sure you're providing the right support?	• How would you describe your relationships with families? • Could you give me an example of how the you welcome mothers into the service? • Do you have any contact with the mothers
	Two-way communication	• Could you tell me about your first contact with (the service)? How about your first visit to (the service)? • How would you describe your relationship with the educators?	• How would you describe your relationships with families? • Could you give me an example of how the you welcome mothers into the service? • Do you have any contact with the mothers	• How would you describe your relationships with families? • Could you give me an example of how the you welcome mothers into the service? • Do you have any contact with the mothers

		• Could you give me an example of how the educators make you feel welcomed? • Have you found all of the educators to be supportive of breastfeeding? • Do you have any contact with the educators during the day? • Do you feel that educators understand or respect the effort that goes into expressing breastmilk? Why/why not? • Could you tell me about what usually happens at the end of the day?	during the day? • Could you tell me about what usually happens at the end of the day?	during the day? • Could you tell me about what usually happens at the end of the day?

Appendix 5

Iowa Infant Feeding Attitude Scale

The Iowa Infant Feeding Attitude Scale

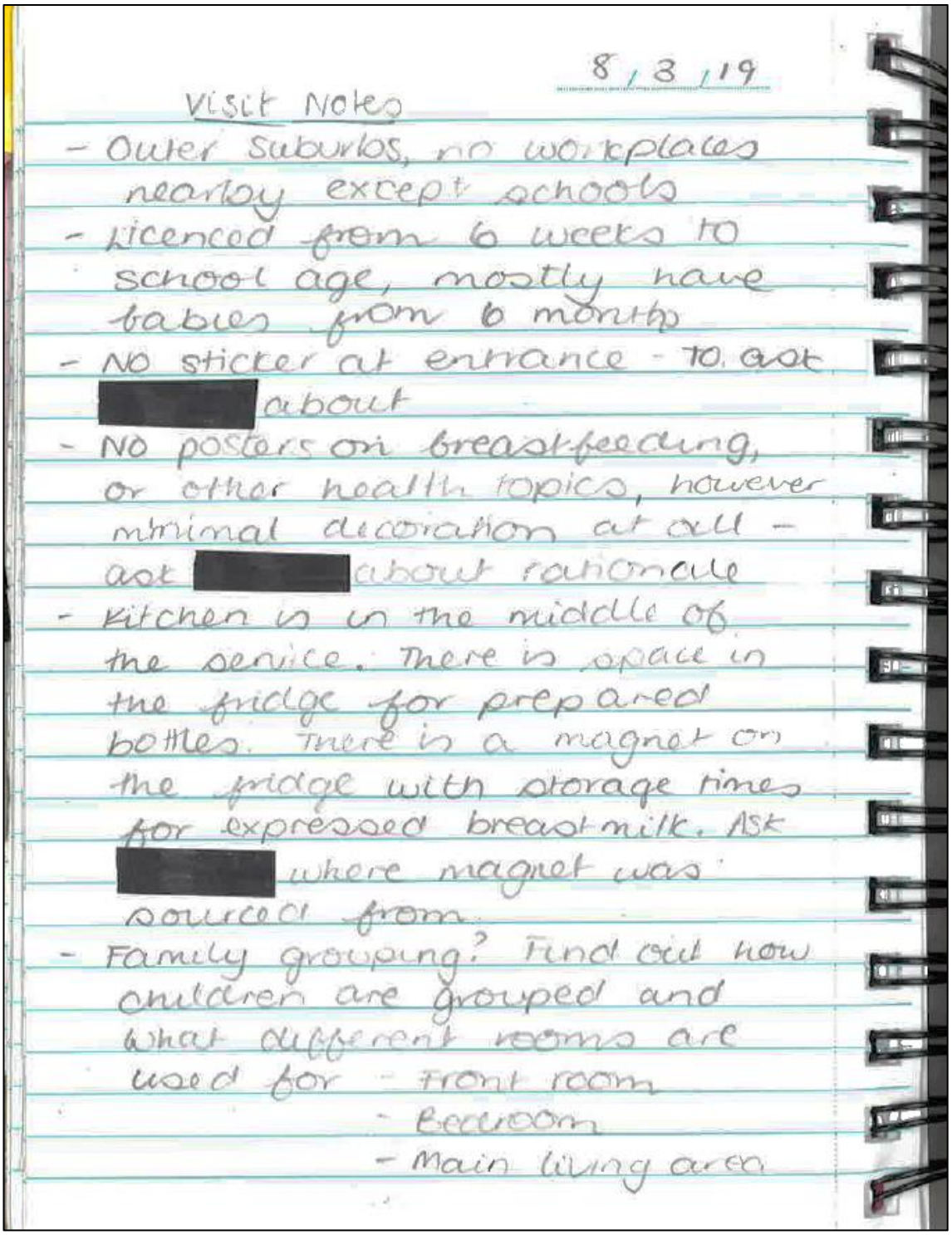
For each of the following statements, please indicate how much you agree or disagree by circling the number that most closely corresponds to your opinion (1 = *strong disagreement* [SD], 2 = *disagreement* [D]. 3 = *neutral* [N], 4 = *agreement* [A], 5 = *strong agreement* [SA]). You may choose any number from 1 to 5.

		SD	D	N	A	SA
1.	The nutritional benefits of breast milk last only until the baby is weaned from breast milk.	1	2	3	4	5
2.	Formula-feeding is more convenient than breast-feeding.	1	2	3	4	5
3.	Breast-feeding increases mother-infant bonding.	1	2	3	4	5
4.	Breast milk is lacking in iron.	1	2	3	4	5
5.	Formula-fed babies are more likely to be overfed than are breast-fed babies.	1	2	3	4	5
6.	Formula-feeding is the better choice if a mother plans to work outside the home.	1	2	3	4	5
7.	Mothers who formula-feed miss one of the great joys of motherhood.	1	2	3	4	5
8.	Women should not breast-feed in public places such as restaurants.	1	2	3	4	5
9.	Babies fed breast milk are healthier than babies who are fed formula.	1	2	3	4	5
10.	Breast-fed babies are more likely to be overfed than formula-fed babies.	1	2	3	4	5
11.	Fathers feel left out if a mother breast-feeds.	1	2	3	4	5
12.	Breast milk is the ideal food for babies.	1	2	3	4	5
13.	Breast milk is more easily digested than formula.	1	2	3	4	5
14.	Formula is as healthy for an infant as breast milk.	1	2	3	4	5
15.	Breast-feeding is more convenient than formula feeding.	1	2	3	4	5
16.	Breast milk is less expensive than formula.	1	2	3	4	5
17.	A mother who occasionally drinks alcohol should not breast-feed her baby.	1	2	3	4	5

Source: (De la Mora et al., 1999)

Appendix 6

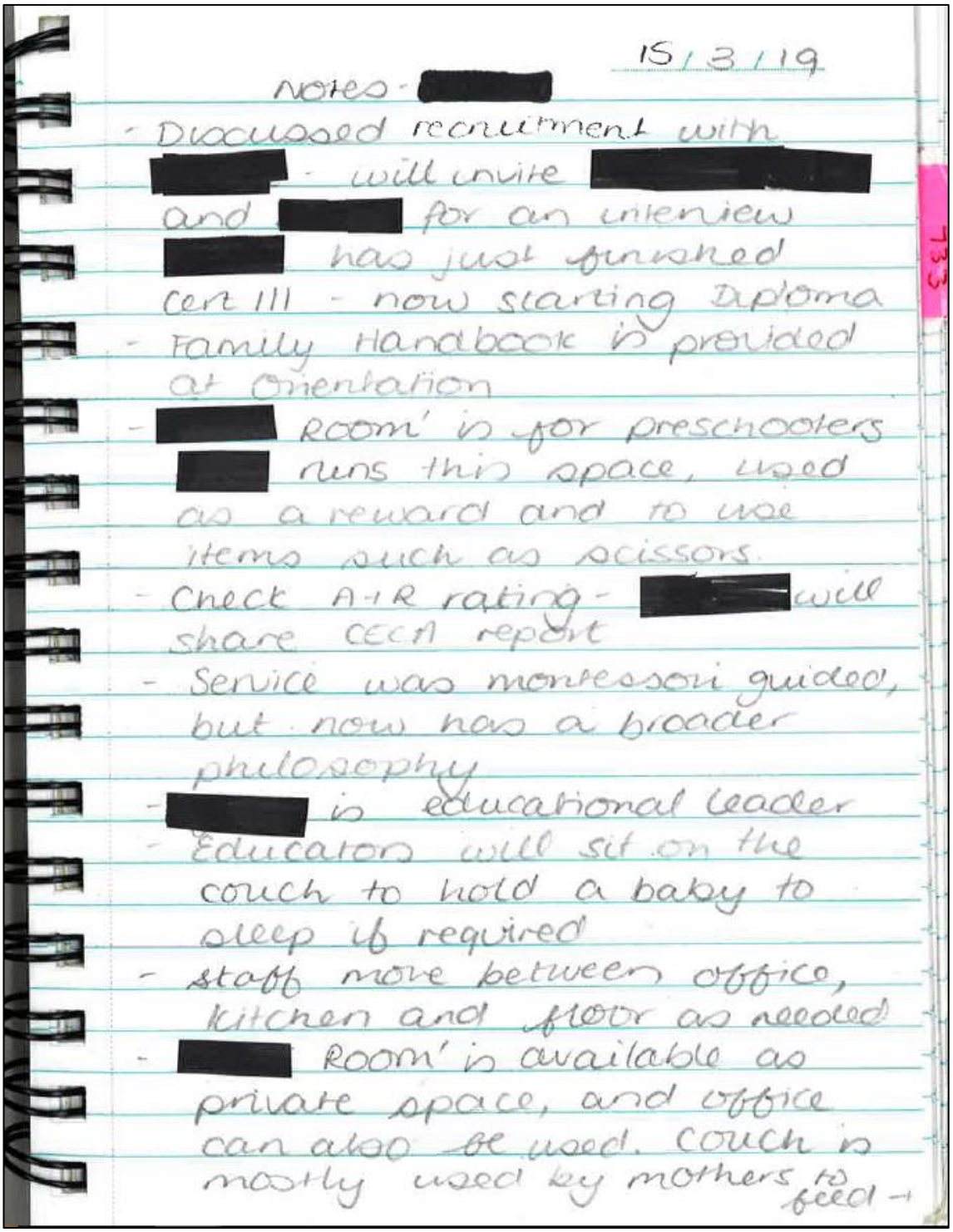
Field Notes Sample



8/3/19

Visit Notes

- Outer suburbs, no workplaces nearby except schools
- Licenced from 6 weeks to school age, mostly have babies from 6 months
- NO sticker at entrance - TO ask [redacted] about
- NO posters on breastfeeding, or other health topics, however minimal decoration at all - ask [redacted] about rationale
- Kitchen is in the middle of the service. There is space in the fridge for prepared bottles. There is a magnet on the fridge with storage times for expressed breast milk. Ask [redacted] where magnet was sourced from.
- Family grouping? Find out how children are grouped and what different rooms are used for - Front room
  - Bedroom
  - Main living area



15/3/19

Notes - [redacted]

- Discussed recruitment with [redacted] - will invite [redacted] and [redacted] for an interview
- [redacted] has just finished Cert III - now starting Diploma
- Family Handbook is provided at Orientation
- [redacted] Room' is for preschoolers - [redacted] runs this space, used as a reward and to use items such as scissors.
- Check A-R rating - [redacted] will share CECA report
- Service was montessori guided, but now has a broader philosophy
- [redacted] is educational leader
- Educators will sit on the couch to hold a baby to sleep if required
- staff move between office, kitchen and floor as needed
- [redacted] Room' is available as private space, and office can also be used. Couch is mostly used by mothers to feed →

Appendix 7 (page 84) removed from Open Access version as they may contain sensitive/confidential content.