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Breastfeeding Mothers' Experiences with Infant Feeding: An Interpretive Phenomenological Analysis

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"Mothers need to

believe what they're

doing is right..."

(Mother remarking on the infant

feeding experience)

Abstract

Introduction: Responsive feeding is a reciprocal relationship between infant and caregiver whereby the baby's feelings of hunger and satiety are recognized and responded to effectively. Responsive feeding and breastfeeding are accepted as ideal feeding methods by the NS Standards for Food and Nutrition in Regulated Child Care Settings and the World Health Organization. With an increasing reliance on child care, early child care centres may have an impact on infant feeding outcomes. The objective was to learn about the infant feeding experiences of mothers with infants in child care centres.

Methods: This was a qualitative research study using an interpretive phenomenological approach. Purposive sampling was used to recruit six mothers of children between the ages of six and 18 months attending a child care centre in Halifax. The mothers all attempted breastfeeding and their child was already introduced to complementary foods. Data was collected through semi-structured interactive interviews.

Results: Thematic analysis was used to analyze data with the support of MAXQDA. Five themes emerged from the mothers' stories: infant feeding burden, weaning stress around the "first-year", resources and recommendations, children's agency, and child care centre partnership.

Conclusion: The areas needing further research and exploration are identified as well as recommendations for current practice.

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for mothers in the future.

Many thanks,

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Chapter 1 - Introduction

In 2003, the World Health Organization (WHO) developed the "Global Strategy for Infant and Young Child Feeding" to provide evidence-based guidelines for early childhood nutrition. This strategy recommends that infants be exclusively breastfed for the first six months of life and then be introduced to complementary foods using a responsive feeding style (WHO, 2003). Responsive feeding is a mutual relationship between infant and caregiver whereby the caregiver recognizes the infant's feelings of hunger and satiety and responds to his/her cues effectively (DiSantis, Hodges, Johnson, & Fisher, 2011b; Daniels et al., 2012; WHO, 2016; Harbron, Booley, Najaar, Day, 2013). WHO's global strategy demands that governments invest in policies and interventions that promote both breastfeeding and responsive feeding because the positive health outcomes associated with these practices are plentiful (WHO, 2003).

Empirical studies have found a statistically significant relationship between duration of breastfeeding and responsive feeding in baby's first year: the longer the mother breastfeeds, the greater the chance she will use a responsive feeding style when solids are introduced (Li, Fein, & Grummer-Stawn, 2010; DiSantis et al., 2011a; Brown & Lee, 2015; Daniels et al., 2012; DiSantis, et al., 2011b). It is unclear whether breastfeeding itself promotes a responsive feeding style or if a mother's preconceived attitudes and beliefs of child rearing promote both longer breastfeeding duration and responsive feeding. With an increasing reliance on child care centres during the period of breastfeeding and complementary feeding, early child care may also have an impact on infant feeding practices. Therefore, using interpretive phenomenological analysis the purpose of this study is to learn about the infant feeding experiences of mothers of breastfed infants in child care centres in Halifax, NS. As this is an understudied topic, exploring the

mother's experience is a foundation for further study and opportunity for policy development and community support.

Chapter 2 – Literature Review

Infant Feeding

Ideal nutrition and nurturing in the first years of life for infants and young children are essential for optimal life-long health and well-being (WHO, 2016). In Canada, these recommendations come largely from the WHO and Health Canada. One of the main objectives of the WHO's Department of Nutrition for Health and Development is to promote evidence-based information for global nutrition standards (WHO, 2016). They recommend that infants begin breastfeeding within one hour of life; be exclusively breastfed for six months; be introduced to adequate, safe and properly fed complementary foods at six months; and be breastfed for up to two years of age or beyond" (WHO, 2016). Health Canada, together with the Canadian Paediatric Society, Dietitians of Canada, and Breastfeeding Committee for Canada, has established more specific infant feeding recommendations that include those set out by the WHO (Health Canada, 2015). More information about these recommendations will be explored further in this review.

Breastfeeding. The importance of breastfeeding and the belief that it is the normal, safest, and best way to feed infants and toddlers are acknowledged by organizations around the world. This well accepted discourse led to numerous breastfeeding standards being adopted by countries including Canada. It is recommended by both the WHO and Health Canada that infants be exclusively breastfed for the first six months, at which time complementary solids are added, and breastfeeding continue until at least two years of age (Gionet, 2013; Health Canada, 2015).

The short-term benefits of breastfeeding for both mother and child, including protection against morbidity and mortality from infectious diseases, are well documented but there was inconsistency concerning any long-term benefits (Horta, Bahl, Martines, Vitoria, 2007).

Therefore, systematic reviews and meta-analyses were carried out by WHO and BioMed Central

Public Health Services to tackle the questions of whether or not long-term benefits associated with breastfeeding included lower rates of obesity in later life, higher intelligence quotients in later life, lower incidences of sudden infant death syndrome, easier attachment with mother, lower rates of postpartum depression, quicker post-pregnancy weight loss, and a reduction in chronic diseases in mother such as ovarian and breast cancers (Horta et al., 2007; Yan et al., 2014).

Yan et al. (2014) investigated the association of breastfeeding and childhood obesity. Searches for studies done in PubMed, EMBASE, and CINAHL databases produced 25 empirical studies totaling 226,508 participants from 12 countries. Their results showed that breastfed children were 22% less likely to be obese compared to children who were fed with a breastmilk substitute (AOR=0.78; 95% CI: 0.74, 0.81). They also found that breastfeeding for under a three-month duration yielded a minor protective effect against obesity while breastfeeding for more than seven months showed a significantly higher protection effect (AOR=0.79; 95% CI: 0.7, 0.88).

A meta-analysis by Horta et al. (2007) explored obesity in breastfed babies later in life as well as levels of school achievement, performance on intelligence tests, and blood pressure and cholesterol levels. Two independent literature searches were carried out using the MEDLINE database. One was conducted at the WHO in Geneva, Switzerland and the other at the University of Pelotas in Pelotas, Brazil. Observation and randomized studies were included from various languages only if their measurements were past infancy. Independent reviewers were responsible for evaluating the studies' quality. Statistically significant relationships were observed between adults who were breastfed and lower systolic and diastolic blood pressures, lower mean total cholesterol, lower rates of obesity, lower rates of type-2 diabetes, and higher performance on

intelligence tests and in school after controlling for several variables (Horta et al., 2007).

Limitations of this meta-analysis were that almost all studies were observational and few studies were available from low and middle-income countries.

In the majority of provinces in Canada, breastfeeding initiation rates are high but drop drastically by the six month mark. In 2012, 87% of infants leaving the hospital in Nova Scotia were breastfed but just 20% were exclusively breastfed at six months (Gionet, 2013). This is slightly lower than the Canadian national average: 90% breastfed when discharged and 24% reaching the six month mark (Gionet, 2013). The two main reasons mothers gave for the discontinuation of breastfeeding within the first six months were insufficient milk supply (44%) and baby ready for solids (18%) (Gionet, 2013).

The majority of Canadian mothers exclusively breastfeeding at six months can be described by dominant characteristics: they were 30 years or older (77%), had postsecondary education (76%), and lived with a significant other (91%) (Statistics Canada, 2015). These characteristics indicate that mothers who are exclusively breastfeeding at six months may have higher family gross incomes because there are potentially two wage earners in the home and they have post-secondary education. These sociodemographic factors play a monumental role in longer breastfeeding duration possibly due to the social determinants of health. Social determinants of health have been identified as challenges for the initiation, duration, and exclusivity for breastfeeding (Best Start Resource Centre, 2014).

Infant feeding practices across the world are explored by Frank (2015). On continents such as Africa and Latin America breastfeeding rates are lower among households with higher incomes and levels of education but the opposite is true for countries including Canada, United States, Australia, and the United Kingdom (Chudasama, Patel, & Kavishwar, 2008; Morrow &

Barraclough, 1993 as cited in Frank, 2015, p. 109). This is an important contradiction to highlight because women who are least able to afford breastmilk substitutes are the ones using them the most.

Breastfeeding support. Under rare circumstances there are physical and medical factors that impact a mother's breastfeeding success and duration. Some examples whereby breastfeeding is not advisable for the mother and baby includes conditions where the mother is infected with human immunodeficiency virus (HIV), has untreated and active tuberculosis, and is using or dependent upon an illicit drug (CDC, 2015). More common breastfeeding barriers to its success and duration revolve around mothers' negative attitudes towards breastfeeding and lack of support. Claibourne et al. (2007) studied attitudes towards breastfeeding among socioeconomically disadvantaged mothers in a UK urban community and their social networks. They found a disproportionate number of women had negative attitudes and knowledge of breastfeeding and that there was a positive significant relationship between mothers' positive attitude of breastfeeding and duration (Claibourne et al., 2017). In addition, positive breastfeeding attitudes within the mother's social network were positively associated with women's own positive attitudes towards breastfeeding. When there is a lack of supports within the mother's social network, professional supports can be available to help create a supportive environment around breastfeeding.

Several supports and resources are available to breastfeeding mothers in the Halifax Regional Municipality (HRM). They are identified on the Breastfeeding Support Helping Tree that was developed by the HRM Breastfeeding Community of Practice (HRM Breastfeeding Community of Practice, 2016). Subjects covered by this tree include support (community, online, in home, telephone), recommended readings, local resource centres, parent and child groups, and

health services and professionals. There remains to be several gaps identified by the breastfeeding community in HRM: lactation consultants are not covered by private health insurance; no accessibility to a milk bank; lack of a breastfeeding clinic (Ann Morgan, Public Health Nurse); and lack of Baby Rooms (Hamilton, Richards, & Lam, 2016). Working groups have been formed to advocate for each of these gaps in the province.

The rural community of Tatamagouche, Nova Scotia and its surrounding geographical area have significantly longer breastfeeding durations than the provincial and national average. Sim, Price and Kirk (2013) completed a qualitative study in this area by way of interviews and focus groups to learn about the perceptions and observations of the culture of breastfeeding in the area. They found that Tatamagouche has a strong support network of mothers that have an extended understanding of breastfeeding. The women with a lot of experience breastfeeding not only help new mothers with lactation and provide social support but also encourage a supportive breastfeeding culture within the community. The normalization of breastfeeding and informal creation of mentorship has become engrained within the culture of the community which has positively impacted the duration of breastfeeding.

A breastfeeding initiative in Michigan evaluated its intervention of peer counselor support to explore if their program was effective in offering breastfeeding support (Haider, Change, Bolton, Gold, & Olson, 2014). The breastfeeding initiative's support program coordinates peer counselors to provide breastfeeding advice via home visits and telephone calls to women of low socioeconomic status. Women enrolled in the program also have access to advice surrounding nutrition, health, and community resources. The study compared mothers enrolled in the program (n=274) to those on the wait list (n=572). They found that breastfeeding

rates at birth for the program participants were 19.3 percent higher and breastfeeding duration approximately three weeks longer than the control group.

Breastfeeding standards. Standards are implemented at different levels of government to assist mothers in reaching their breastfeeding goals and to promote breastfeeding in the community. Nova Scotia has several standards in place: The Nova Scotia Human Rights

Commission Breastfeeding Policy, which protects a mother's right to breastfeed in a public space; the Nova Scotia Provincial Healthy Eating Strategy, whose objective is to increase initiation and duration of breastfeeding; and the Nova Scotia Provincial Breastfeeding Policy, which includes working towards the Baby Friendly Initiative (BFI) designation (Province of Nova Scotia, 2013). In 2011, an evaluation of the Nova Scotia Provincial Breastfeeding Policy was released (Kirk, Hemmens, Price, & Sim, 2011). Information from several focus groups and qualitative interviews identified a number of successes and challenges. The policy was widely supported by those interviewed and there was an overall increase in breastfeeding promotion. However, implementing the policy was named as a significant challenge due to an unsupportive culture of breastfeeding that most likely mirrors the dominant societal norms in Nova Scotia (Kirk et al., 2011).

The Baby Friendly Initiative (BFI) is a joint international program between WHO and UNICEF that was launched in 1991 (Health Canada, 2015). Its goals are for hospitals and maternity facilities to implement the *Ten Steps to Successful Breastfeeding* and to end the distribution of free and low-cost supplies of breastmilk substitutes to maternity wards and hospitals (WHO & UNICEF, 2009). Hospitals wishing to be designated a BFI centre must adhere to strict criteria and assessment outlined in the program

• All Ten Steps to Successful Breastfeeding need to be fulfilled (see *Appendix A*).

- No free or low-cost supplies of products within the scope of the International Code are allowed.
- Criteria on mother-friendly care needs to be met, after facilities have had a chance to train their staff on this component (at least 20 hours of training on breastfeeding promotion and support is usually needed).

More than 20,000 hospitals in 152 countries have been given the BFI designation. The IWK Health Centre in Halifax, NS is currently working towards their BFI designation.

Bottle-feeding. Three quarters of Canadian babies are fed by breastmilk substitute via bottle at six months of age (Gionet, 2013). Bottles are used as a feeding method when breastfeeding is unsuccessful, mothers are expressing milk from breast, or family decides to use a breastmilk substitute (Gionet, 2013). Several studies have explored if there is a health difference between breastfeeding and drinking from a bottle (DiSantis et al., 2011a; Rossiter et al., 2015). DiSantis et al. (2011a) questioned if breastfed babies have improved appetite regulation and slower growth during early childhood. Their study consisted of 109 Philadelphia children aged three to six. They found that children exclusively breastfed in the first three months of life were positively associated with greater appetite regulation in childhood (DiSantis et al., 2011a). Rossiter et al. (2015) found similar outcomes in their Nova Scotia population (n=5,560) whereby feeding directly from breast appeared to be a protective factor from childhood obesity (Rossiter et al., 2015).

It is unclear why breastfed babies have greater appetite regulation and lower incidences of obesity compared to babies who were fed with a bottle. Breastfeeding is a method whereby the infant is in control of their intake as they can pull away from the breast when finished and can also eat on demand. This is opposed to babies fed by a bottle whose caregiver is more so in

control of managing the intake of food. Parent feeding styles may also influence the introduction and duration of breastfeeding.

Complementary Feeding

Complementary feeding is the process of complementing a child's diet of breastmilk and/or breastmilk substitute with family foods (Health Canada, 2015; WHO, 2016). At six months old, breastmilk and/or breastmilk substitutes remain the main source of nutrients while family foods are increased in the child's diet (Health Canada, 2015; WHO, 2016). By 24 months old, family foods should have been increased to three to four meals and one or two nutritious snacks per day (WHO, 2016). Complementary feeding needs to be adequate, timely, safe, and appropriate (WHO, 2016). Accomplishing these goals are not only largely dependent on the family's availability of healthy food, but also on the feeding style of the child's caregiver (WHO, 2016).

Health Canada, Public Health agencies across Canada, and Dietitians of Canada are consistent in their practical recommendations for the introduction of solids at six months of age. Eat Right Ontario is a program in Ontario that connects parents to a dietitian for free and publishes feeding recommendations online in hopes of being easily accessible for families (Dietitians of Canada, 2016). For complementary feeding, they recommend that babies are ready to start solids when they have good head control, can sit up and lean forward, can pick up food and try to put it in their mouth, and can turn their head away to let you know they are full (Dietitians of Canada, 2016). Foods should consist of a variety of textures, including purees, and should include finger foods to encourage baby to self-feed. Iron-rich foods should be introduced first and then vegetables, fruits, dairy, and other grain products. Eat Right Ontario encourages caregivers to allow baby to be in control of how much they eat. They should start with just

offering a small quantity of food then let baby guide the quantity of their intake. This is consistent with a responsive feeding style.

Parenting Styles and Feeding Practices

Overview of parenting to feeding styles. Parenting styles are a combination of the caregiver's attitude and behaviour towards a child that can be categorized into four different approaches: authoritative/responsive, authoritarian, uninvolved, and permissive (Harbron et al., 2013). The way caregivers fall into these categories varies. For example, they may fall rigidly into one parenting style or use a combination of all four. Having familiarity with these is important because within parenting styles there are feeding practices that are usually related (Harbron et al., 2013). At times however, this is not the case. In a study by Sleddens et al. (2014) they found that parents who used a positive parenting style were found to pressure their children to eat if they were underweight. The finding suggests that when there was a medical concern with the child the feeding practice did not correspond to the parenting style. Further studies exploring this outcome is needed (Sleddins et al., 2014). Table 1 gives a brief description of each feeding style with its affiliated parenting style as well as the general characteristics of the parent (Harbron et al., 2013).

Table 1								
Parenting and Feeding Styles Adapted from Harbron et al. (2013).								
	Parenting Style							
	Authoritarian	Uninvolved	Indulgent	Authoritative				
Feeding Style	Unresponsive	Unresponsive	Unresponsive	Responsive				
Characteristics of Parent	Dominates feeding, uses forceful, pressure, restrictive and bribery strategies	No feeding structure, no response to child's hunger and fullness cues; little engagement	No feeding structure, uses food as a comforter and controller	Creates feeding structure, responds appropriately to child's hunger and fullness cues; is engaged and interactive; supports self-feeding				

Responsive feeding is the preferred style method for infants, which will be discussed below in more detail (Harbron et al., 2013; WHO, 2016; Health Canada, 2015). There are several disadvantages to a nonresponsive feeding style, which is identified in authoritarian, uninvolved, and indulgent parenting styles. Unresponsive feeding styles create problematic feeding environments that are associated with a negative impact on the child's relationship with food (Harbron et al., 2013). Possible negative consequences of unresponsive feeding are experiencing distress during meal times, developing poor food intake self-regulation, and overindulging on energy dense and low nutrient foods (Harbron et al., 2013).

Responsive feeding. The "Global Strategy for Infant and Young Child Feeding" recommends that infants be introduced complementary foods at six months old with a responsive feeding style (WHO, 2003). Responsive feeding is a mutual relationship between infant and caregiver whereby the caregiver recognizes the infant's feelings of hunger and satiety, and

responds to their cues effectively (DiSantis et al., 2011b; Daniels et al., 2012; WHO, 2016; Harbron et al., 2013). UNICEF describes responsive feeding as:

- Feeding infants directly and assisting older children when they feed themselves
 while being sensitive to their hunger and satiety cues.
- Feeding slowly and patiently, while encouraging children to eat without forcing them to do so.
- Offering new foods several times. Children sometimes refuse new foods the first few tries.
- Experimenting with different foods, food combinations, tastes, textures, and methods of encouragement if the child refuses foods regularly.
- Minimizing distractions during meals if the child loses interest easily.
- Treating feeding times are periods of learning and love. Talk to children during feeding with eye to eye contact (UNICEF, 2009).

The dominant discourse surrounding responsive feeding is that it is the foundation for healthy eating behaviours in later life, which includes the skills to self-regulate and have self-control over food intake (Harbron et al., 2013; Black & Aboud, 2011). It also fosters the ideal growth standard and nutrient intake, as well as the long-term regulation of weight (Harbron et al., 2013). This is due to responsive feeding creating an environment where children's internal signs of hunger and satiety are responded to with prompt, emotionally supportive, contingent, and developmentally appropriate responses (Harbron et al., 2013). It is problematic to focus only on nutritional recommendations and not the style in which those recommendations are attempted. This could potentially encourage the caregiver to use nonresponsive and controlling behaviour, which is the opposite to a responsive feeding style (Harbron et al., 2013).

Relationship between responsive feeding and breastfeeding. Mothers who breastfeed on demand learn to read their infant's hunger and satiety cues quickly due to fewer opportunities to implement maternal control over infant feeding (Harbron et al., 2013; Hughes et al., 2007). Breastfed babies are mostly in control of both the schedule and quantity of milk intake (Brown & Arnott, 2014; Brown & Lee, 2015). A bottle-feeding method can encourage maternal control over infant feeding because it involves measuring, scheduling, and the possibility of the infant consuming more than they need (Brown & Arnott, 2014; Brown & Lee, 2015). Breastfeeding mothers become accustomed to infants being in control of their own hunger and satiety, which could explain why they predominantly adopt a responsive feeding style (Brown & Arnott, 2014; DiSantis et al., 2011b).

Moreover, the positive relationship between breastfeeding duration and responsive feeding style may be explained by the mother's already held beliefs and attitudes. Maternal mind-mindedness is when mothers view infants as their own mental agent (Farrow & Blissett, 2014). The mother treats her child as an individual with its own mind compared to a baby whose needs have to be met (Meins, Fernyhough, Fradley, & Tuckey, 2001). Furthermore, the mother will think about the child's own thoughts and perspectives, which is taken into consideration when figuring out why the child is behaving in a certain way (Meins et al., 2001). Farrow and Blissett's (2014) longitudinal study was the first to explore maternal mind-mindedness, breastfeeding, and responsive feeding. They found positive relationships between both maternal mind-mindedness and breastfeeding duration, and maternal mind-mindedness and employing a responsive feeding style. Further empirical work is needed in order to learn more about the decision-making process around breastfeeding and using a responsive feeding style with the hope of increasing the number of children who can benefit from both of these methods.

Baby-led weaning (BLW). BLW is a responsive feeding inspired technique sometimes used when introducing complementary solids which has been gaining momentum around the world, specifically in the United Kingdom and New Zealand (Locke, 2014). It originated in 2008 when health-visitor and midwife, Rapley, and freelance writer, Murkett, prepared a parental guide on how to do BLW. It is very much a parenting-led phenomenon as it gained popularity through parenting forums around the world and not through evidence-based standards (Locke, 2014). Little empirical literature has been published on BLW but that is changing as it becomes a more popular feeding method around the world. (Locke, 2014; Cichero, 2016). Well-designed studies are needed to explore the different approaches for complementary feeding (Cichero, 2016).

BLW is an alternative feeding method compared to traditional spoon-feeding methods (Cichero, 2016; Locke, 2014). BLW skips spoon-fed pureed foods and baby cereal to offering the six month old finger sized pieces of food to feed themselves (Brown & Lee, 2011a). The baby self-feeds by deciding which foods to pick up and eat along with the quantity of food (Brown & Lee, 2011a; Cichero, 2016). The mother follows the baby's cues for hunger and satiety (Brown & Lee, 2011a; Cichero, 2016).

Brown and Lee (2011a) published a study using online questionnaire answers from 650 mothers who had a child between 6 months and 1 year of age in the UK with the purpose of exploring BLW. They found that mothers who used BLW were more likely to have higher education, higher occupation, be married, and have breastfed their infant. Within the sample there was also a relationship between BLW and a later introduction of complementary foods, increased participation in meal times and exposure to family foods, and lower levels of anxiety about weaning and feeding. Within the same year, the authors published another study including

36 semi-structured interviews investigating attitudes, beliefs, and behaviours of mothers who used BLW (Brown & Lee, 2011b). Reasons given for using the method included wanting to give the child control over what they eat and to balance their appetite. The mothers thought these would lead to greater control and self-regulation as an adult, which would lead to a healthier diet and lower risk of overweight. The use of responsive feeding was obvious in the sample because the infants were allowed to control their intake and were offered a wide variety of textures and tastes (Brown & Lee, 2011b). Some challenges of BLW identified in the study were increased mess and waste, and risk of choking.

In New Zealand, several challenges with BLW have been identified by their Public Health Agency. They also identify an increased risk of choking compared to traditional weaning methods. Babies who are offered finger foods at six months old, compared to starting with purees and progressing to finger foods, are at higher risk of choking (Cameron, Taylor, Heath, 2015). In addition, there is an increased risk of low iron status because foods that are fortified with iron for babies, like baby cereal, rely upon spoon-feeding (Cameron, Taylor, Heath, 2015). There is also an increased risk of growth faltering. At six months old, children may not have the skills to feed themselves or the energy to consume enough food for appropriate growth (Cameron, Taylor, Heath, 2015). As well, fruits and vegetables may make up most of the child's diet because they are traditionally easier for babies to hold (Cameron, Taylor, Heath, 2015). A study in the United Kingdom that explored if BLW is feasible for all infants found that 6% (n=602) of babies were still not reaching out for food at eight months old which suggests BLW may not be a realistic method for all infants (Wright, Cameron, Tsiaka, Parkinson, 2011).

The authors in New Zealand wanted to explore these challenges further as the numbers of families using BLW was growing (Cameron, Taylor, Heath, 2015). They, along with a

pediatrician and pediatric speech-language therapist, developed an adaptation of BLW named Baby-led Introduction to Solids (BLISS) which addressed the previously discussed three challenges. The criteria of BLISS were that caregivers needed to offer foods to the infant that they can pick up and feed themselves; offer one high-iron and one high-energy food at each meal; and offer food in a prepared way that is suitable for the child's developmental age to reduce the risk of choking.

They developed a 12-week pilot study, recruited 23 families, and separated them into two groups: BLISS (n=14) and BLW (n=9). BLISS families received two intervention visits, resources, and on-call support while BLW families received no intervention. Outcomes were that the BLISS families were more likely to introduce iron containing foods during the first week of complementary feeding and throughout the day (p=0.001) and less likely to offer foods with increased risk of choking (p=0.027). Due to the pilot project's success, the authors are currently working on a randomized control trial which will be the first investigating a Baby-led approach to complementary feeding (Daniels, et al., 2015).

Child Care Centres

Reliance on child care centres. Primary caregivers are not always the only facilitators of infant feeding in the child's life. For example, if the caregiver enters or reenters the workforce, they are no longer solely responsible for infant feeding. The child care may be provided by extended family, friends, or child care centres. Therefore, the impact of child care centres on infant feeding and responsive feeding needs to be explored.

The Canadian family's need for early childhood care has been steadily increasing over the past three decades (Ferrao, 2010). This need is closely related to the age of the child and more specifically with employment insurance benefits of the parents in baby's first year (Sinha,

2014). For example, parents with children under age one were least likely to need child care (26%) compared with children aged two to four (~ 60%) (Sinha, 2014). Affordable and accessible regulated child care continues to be a challenge for families in Canada (CPHA, 2016). Just under one quarter of full- or part-time child care spaces are in regulated centres across Nova Scotia (23.9%) (CPHA, 2016). Even though the need for regulated child care spaces is great, the total number of spaces across Canada has increased by less than one percent in the last six years. Given the number of children enrolled in child care centre programs, early childhood education has an important role to play in infant feeding.

Nova Scotia standards for child care settings. Standards in Nova Scotia protect the breastfeeding relationship when child care is located outside of the home. The *Standards for Food and Nutrition in Regulated Child Care Settings* - was created by the Food and Nutrition Support for Licensed Child Care Centres Advisory Group and took effect on July 1, 2011 in Nova Scotia (Province of Nova Scotia, 2011). The Standards describe the expectations and best practices for food and nutrition practices, including breastfeeding, in regulated and approved family day care homes in Nova Scotia (Province of Nova Scotia, 2011, p. iii). Child care centres and approved family home day care programs must follow these standards, which includes creating food menus that meet the Food and Beverage Criteria (Province of Nova Scotia, 2011, p. iii). Each standard is equipped with a rationale explaining its importance and the specifics of how it should be carried out. Tools and support for the implementation of the Standards are also included. Examples of specifics around the breastfeeding standard are that mothers can breastfeed anywhere in the facility and this needs to be stated in the facility's Parent Handbook; the facility needs to provide a comfortable space for mothers to breastfeed upon request;

breastmilk will be accepted by worker and stored properly; and the facility works with the family to develop an Infant Feeding Plan.

There is little research that explores the normalization of breastfeeding in child care centres. One study in New Zealand explored this area by collecting web-based questionnaires (n=89) (Duncan & Bartle, 2014). It found that bottle-feeding was the dominant and normalized feeding method in child care centres, which reflected their society's norms on a wider scale. In this study, the majority of breastfeeding mothers considered it a significant barrier that breastfeeding was not considered the 'norm' at their associated child care centre. Even though there had been attempts to challenge the status quo in this regard, a bottle-feeding culture as the 'norm' remained intact. The study found that the early childhood teachers were under-prepared and ill-equipped for protecting, promoting and supporting breastfeeding within the settings, therefore, a shift to the normalization of breastfeeding was very challenging (Duncan & Bartle, 2014).

New Zealand's policy of parental leave benefits is similar to Canada's in that it is time away from work to be with child for up to one year. Therefore, New Zealanders and Canadians are seeking child care options around the same time and possibly experiencing similar breastfeeding barriers. In Canada, maternal and parental leave benefits combined used to equal six months but then doubled to 52 weeks in 2000. This policy change increased women's time away from work by more than three months and lengthened breastfeeding duration by one month (Baker & Milligan, 2008). The Liberal Party of Canada has promised to deliver more flexible parental benefits that would make it possible to take a longer leave up to 18 months at a lower benefit level (Liberal, 2016). This opportunity could mean another increase in women's time away from work and longer breastfeeding duration.

Nutrition Standards in Child Care Project Report

The *Nutrition Standards in Child Care Project (NSCCP)* is a multi-researcher initiative that set out to investigate how the *Standards and Guidelines for Food and Nutrition in Regulated Child Care Settings* were being implemented and how they were influencing eating behaviours of children in Nova Scotia (Kelly, Rossiter, & Mann, 2015). The project involved interviewing parents whose children were attending regulated child care centres (n=32), surveyed centre directors (n=66), and gathered food intakes from a sample of preschool children (n=90). They found that overall, parents were familiar with the *Standards and Guidelines* and most of their attitudes were positive. Further analysis of parental feeding styles and beliefs, along with the experience of developing their child's eating behaviours, is in progress (Kelly et al., 2015).

The NSCCP interview and survey explored breastfeeding in the child care centres. Child care centre staff were asked about designated breastfeeding spaces, if breastfeeding promotional information were displayed in the centres, and if breastfeeding training is an opportunity staff can take advantage of. The researchers found that all the child care centres had a space for breastfeeding mothers to nurse however, half of the centres indicated the space was anywhere the mother felt comfortable and not specifically designated for breastfeeding. Out of these same child care centres only one third of centres had breastfeeding promotional material published on site all the time and 21% had none at all. In addition, the majority of centre staff never participated in breastfeeding training (60%) in comparison with only 10% of centres providing breastfeeding training to staff at all times (Kelly et al., 2015).

Child care centre directors were also asked specifically about breastfeeding practices or policies in place at their centre, common breastfeeding barriers in child care centres, and what their recommendations are to enhance breastfeeding support in child care centres. There were

very few breastfeeding practices and policies in place in the centres identified by the directors. Most indicated that mothers were welcome to breastfeed anywhere in the child care centre, which is consistent with provincial breastfeeding legislation, but few identified direct encouragement of mother to breastfeed (20%), visible signage promoting breastfeeding in centre (14%), and that the centre welcomes expressed breast milk in bottles (3%). 32% of respondents stated that there were no barriers to breastfeeding in their child care centre. Some of the breastfeeding barriers identified by other directors in the survey included no appropriate space to meet everyone's needs (27%) and negative attitudes regarding the acceptance of breastfeeding by families and staff (27%). Three highlighted recommendations to enhance breastfeeding support in the child care centres were to provide educational material for parents, children, and staff (18%), provide designated breastfeeding space (11%), and publish promotional items (8%) (Kelly et al., 2015).

Conclusion

An overview of infant feeding practices and methods has been produced as well as the current standards in place. Given the short- and long-term benefits of both breastfeeding and responsive feeding, there is a rationale for exploring these topics in greater depth. With just approximately one fifth of mothers breastfeeding at six months postpartum in Nova Scotia and the increasing reliance on child care centres, uncovering the experiences of breastfeeding mothers with infants in child care centres is needed. It is an important area to study in order to further our understanding in this area and to better support parents through further policy development and resources available to them. This study will build on Kirk et al.'s (2011) evaluation of the Provincial Breastfeeding Policy, which identified breastfeeding barriers

stemming from cultural norms, as well as the NSCCP, that identified breastfeeding barriers in child care centres in Halifax, Nova Scotia.

Chapter 3 – Method

This is a qualitative research study that used an interpretive phenomenological method. Interpretive phenomenology is arguably the best fitting method for researching mothers' infant feeding experiences and is used frequently in nursing research (Spencer, 2008). This is because the interpretive phenomenology approach uncovers and describes the mother's experience, which will develop a greater understanding of the infant feeding experience (Spencer, 2008). The mother's experience has to be discovered within her own context in order to understand the intricacies of the infant feeding experience within child care centres (Spencer, 2008).

As noted in the previous section, even though breastfeeding is accepted worldwide as the ideal infant feeding method, only a small percentage of mothers are exclusively breastfeeding at six months postpartum. In addition, as the recommendations for responsive feeding are growing as a potential best practice and some evidence supports a positive relationship between the two, there is a further need to study them together. Therefore, learning about a mother's infant feeding experience within her context is essential to identifying how to best offer resources and support (Spencer, 2008). A phenomenological approach is appropriate with this inquiry because it aspires to accurately describe the lived experiences of people and identify themes that appear across participants' stories (Spencer, 2008). The identified themes are then used to answer questions about the person's lived experiences (Spencer, 2008).

Most studies exploring the attitudes of breastfeeding focus on biomedical or sociodemographic perspectives using quantitative methods (Spencer, 2008). There is a gap in published research about women's perceptions of breastfeeding learned through the telling of their own experiences (Spencer, 2008). The purpose of this study was to learn about the individual experiences with breastfeeding and infant feeding as opposed to formulating a new theory (Spencer, 2008; Pietkiewicz & Smith, 2012). The researcher's primary focus was to accurately tell the lived experiences of the people being interviewed (Spencer, 2008).

Participants

A purposive sampling approach was used to create a group of information-rich cases to be studied in depth (Wiersma & Jurs, 2009). An interpretive phenomenological approach with a small sample allowed a detailed case-by-case analysis of each interview (Pietkiewicz & Smith, 2012). The sample included six mothers who had a child between the ages of six and 18 months old that attended either a full- or part-time child care centre in the Halifax Regional Municipality. The children had to have been already introduced to complementary family foods at home and at their child care centre, and the mothers had to have at least attempted breastfeeding. The children needed to be at least six months of age to ensure they had begun consuming complementary solids, as the recommended age for the introduction of solids is six months old. The age cut-off was 18 months because one of the objectives of the study was to learn about the mother's experience about the introduction to complementary foods. This provides a shorter time frame for the parent to reflect upon the time they introduced solids to their baby. In addition, when a baby turns 18 months old they move into the toddler room at their child care centre, based on the province's regulations. The culture around food in the toddler rooms compared with the infant rooms is likely varied. Therefore, having all participants' children in the same age-range room provided some consistency among the sample.

The researcher anticipated that five to seven participants in this study would achieve data saturation to an extent. The interpretive phenomenology process could continue ad infinitum as it is always possible that a subsequent interview could produce new data, themes, and coding (Brocki & Wearden, 2006). For this population, five to seven participants were believed to be

sufficient as they would be considered rich narratives consisting of a lot of information. The mothers needed to be English speaking and have breastfed for any period of time postpartum. Mothers who had provided their infant with their own expressed breastmilk would have also been included in the sample. The children needed to have been introduced to complementary solids at home and at their child care centre. Children who experienced significant barriers to the intake of complementary solids or who are on a specialized diet (e.g. chronic gastroenterological issues, multiple allergies) were excluded from the sample.

Recruitment

Participants were recruited over a one-month period by placing advertisements on parenting forums such as the Facebook Group "Breastfeeding in Nova Scotia" and in child care centres. The recruitment flyer is attached in *Appendix B*. Mothers were asked to call or email the researcher to volunteer for the study. Recruitment and interviews occurred simultaneously. An honorarium was not offered for participation; however, the researcher offered resource materials, which identified free supports in the participants' communities. The mothers were also sent the results of the study.

Data Collection

Data was collected through interactive in person interviews with each mother. These interviews were approximately one hour in length to ensure the collection of a rich narrative. The interviews took place in a private space and at a time agreed upon by the interviewer and participant. The interviewer's personal laptop was used to audio record the interview in entirety, which eliminated the need for note taking. The audio file was saved on the laptop using VeraCrypt Software to ensure the file was encrypted with a password. An encrypted back-up file

was stored on a separate personal computer owned by the interviewer. The interviewer produced a verbatim transcription of the audio file (Pietkiewicz & Smith, 2012).

Interviews reflected a semi-structured process similar to Spencer, Greatrex-White, and Fraser's design (2014). It was structured by having a clear focus on the exploration of the mother's experience of feeding her baby but at the same time unstructured in that there was not a set list of questions for the interviewer to use in sequence. The first question asked by the interviewer was: 'Can you tell me about your experience of feeding your baby?' (Spencer et al., 2014). Subsequent questions found on the interview guide were used to prompt a further in-depth account of the mother's experience and encouraged conversation. These questions did not have to be asked in order but were used as a guide to help the interviewer create a natural flow of conversation (Pietkiewicz & Smith, 2012). An example of the interview guide with follow-up prompts is found in *Appendix C*. The questions were not provided to the mothers before the interview.

Interviewers using an interpretive phenomenological approach need to have developed interviewing skills including active listening and the ability to quickly build rapport with the participant (Pietkiewicz & Smith, 2012). In addition, the interviewer is required to be cognizant of the participant's affect and continually assess how the interview is affecting the participant (Pietkiewicz & Smith, 2012). Counseling skills are highly encouraged to help the interviewer tease out the conversations that may make the participant feel awkward, ashamed, or emotional (Pietkiewicz & Smith, 2012). The researcher interviewing this sample met these criteria as she is a registered social worker with over five years of practice experience. The interviewer has completed a Master of Social Work degree and has expertise in building therapeutic rapport and conducting interviews regarding sensitive topics. The interviewer's counseling skills are used

regularly in her professional practice. The interviewer was capable of monitoring how the interview was affecting the participant and could assess if psychosocial support was needed.

Data Analysis

Thematic analysis based on the work of Benner was used during the data analysis stage of this project (Benner, 1985). This method was used to analyze the participant's experience because its objective is to identify themes and patterns of living and/or behaviour (Aronson, 1994; Conroy, 2003). The researcher conducted in-depth interviews then transcribed the audio recording verbatim. After the interviews were transcribed, the patterns from the participants' experiences were recorded (Aronson, 1994). The data was organized in MAXQDA software and then followed up by data reduction by way of coding and memoing (Wiersma & Jurs, 2009). The researcher reviewed the audio and written text concomitantly to 'revisit' the session (Conroy, 2003). Memoing, using logs, was written to track progress, problems and insights (Conroy, 2003). Summaries of what the researcher believed the mother was saying at 'face value' during interview discussions were written down as well as any hunches, intuitions, and insights (Conroy, 2003). Each interview was reviewed several times to discover background meanings (Conroy, 2003).

Reflexivity was used to present the information gained by the researcher and to identify any personal biases (Clancy, 2013). Through the process of reflexivity, the researcher examined her own involvement in the interview and how their behavior may have influenced the participant (Clancy, 2013). As well, the researcher identified 'where they are coming from' in their interpretation of the results and recognized the ways in which they can influence the interpretation of the results (Clancy, 2013). A reflexive diary was used during the research process to keep the researcher's thoughts to be reflected upon at a later time.

Exemplars (patterns) were detected by the researcher by searching for thoughts, words or phrases, and events that appeared multiple times throughout the interview (Wiersma & Jurs, 2009; Conroy, 2003). Quotes from the interviews and common ideas were also used to identify exemplars (Aronson, 1994). The next step in the process was to categorize all the data into the existing identified exemplars (Aronson, 1994). The researcher used MAXQDA to assist in categorizing the participants' experiences and emergent themes. Next, related patterns were combined and categorized into sub-themes (Aronson, 1994). The sub-themes illustrated a comprehensive view of the participants' experiences (Aronson, 1994). The last step in the process was to develop arguments outlining why the themes were chosen (Aronson, 1994). The related literature was used to form the argument and was combined with the findings to create a story (Aronson, 1994). In sum, the steps of thematic analysis that were followed were to collect data, identify all data that relate to the already classified patterns, combine and catalogue related patterns into sub-themes, and build a valid argument explaining the chosen themes (Aronson, 1994).

Ethics

An ethics application was submitted upon completion of the thesis proposal presentation and the research study was approved by the MSVU Research Ethics Board before commencing¹. Participants were asked to sign consent forms for participating in the study and for their interview to be audio recorded. The informed consent form to participate is found in *Appendix D* and the audio recording consent form is found in *Appendix E*. Participants did not have to answer any questions they did not feel comfortable with. Participants were not anonymous to the researcher but responses were kept confidential and not linked to participants. Phrases, words,

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¹ Ethics approval certificate #2016-084

and quotes from the interviews were used as part of the data analysis. All names of the participants are replaced when referred to in the paper. Anything that could identify the participant is not be named but just discussed. For example, the specific early child care centre the participant's child attends and the community the participant lives in are not named. They are described and discussed in general. There was minimal risk as defined by the TCPS2 and the REB.FORM.001 addresses all ethical issues as per the MSVU UREB and Tri-Council.

Chapter 4 – Introduction to the Mothers

The objective of this study was to learn about breastfeeding mothers' infant feeding experiences within the first 18 months of their child's life. The interpretive phenomenological approach uses a homogeneous small sample, approximately six to eight, found through purposive sampling to answer this question (Pietkiewicz & Smith, 2012). The sample followed these parameters, which will be explained in this section. In addition, because the research questions were largely based around the mothers' experiences, the context of their social situation is relevant here to understand each mother's perspective.

The researcher interviewed six women for the study in private one-on-one interviews that were approximately 60 to 75 minutes long. There were several key variables which were consistent across this sample. All mothers appeared to be at least 30 years of age, Canadian, and of Western European descent, were married and living with their partner, returned to work full-time following their maternity leave, achieved some form of postsecondary education, had breastfed their child for at least one year (one child was almost one-year old), and their children were all attending a child care centre. All names used in this report are pseudonyms to protect the mother and family's identities.

Presentation of the Mothers

Janet

Janet is a mother of three with her youngest, Kate, currently 13 months old. Janet is in her late-thirties and currently works full-time. She lives with her husband in a rural part of the province but Kate attends child care centre in HRM. The researcher met with Janet at her place of work for this interview. She breastfed her two older children until they were one-year old and it still breastfeeding Kate.

Mary

Mary is a mother of two and lives with her "supportive" husband. Her youngest child, Jake, is 11 months old and was in a child care centre for just one week prior to this interview. Mary and her husband both work in the military. She was grappling with the decision to leave her family and do a three-week tour for work when the researcher met with her for the interview. Mary was still breastfeeding Jake at the time of this interview.

Andrea

Andrea is a mother of two and her youngest child, Max, was 15 months old at the time of this interview. The researcher met Andrea in her home and learned that she is a nurse who works a variable schedule. She was no longer breastfeeding Max at the time of this interview.

Sarah

Sarah is the mother of Hayden, who is 16 months old. Like, Andrea, she is a nurse who works a varied schedule. Hayden is Sarah's first child and she was still breastfeeding him at the time of this interview. The researcher met Sarah in her home for the interview.

Jane

Jane is in her late-thirties and lives with her husband, who identifies as having a disability, and her only child, Nathan. Nathan was 15 months old at the time of this interview and had recently been weaned from breastfeeding. The researcher met Jane in her home for the interview. Her husband was present in an adjacent room but did not have a role in the interview process.

Nancy

Nancy was the last mother the researcher interviewed for this study. She lives with her husband and only child, Henry, who was 13 months old at the time of this interview. Nancy appeared to

have the greatest difficulty initiating breastfeeding but was happily still breastfeeding. She works full-time but her type of profession was not disclosed in her discussion.

Chapter 5 – Analysis of the Mothers' Stories

From the initial contact with the mothers the researcher was as flexible and accommodating as possible in scheduling interviews to ensure the mothers were in the most comfortable position to share their story. The researcher did not know the participants prior to the interviews. All the preapproved questions were asked in every interview and the participants were encouraged to interpret their meanings and expand on parts they thought were important. Table 2 outlines the details of the interview sessions.

Table 2		
Interview Details		
Mother	Interview Space	Length of Interview
Janet	Janet's work – privately in a booked boardroom	1:01:42
Mary	Mary's work – privately in a booked office	1:11:48
Andrea	Andrea's home – privately when no one was home	56:04
Sarah	Sarah's home – privately when her son was sleeping	59:17
Jane	Jane's home – her son was sleeping but her husband was sitting in an adjacent room and could hear the interview (he did not participate)	1:13:03
Nancy	Nancy's home – privately when no one was home	59:18

All the interviews were audio recorded and later transcribed by the researcher. Mary's voice did not translate well to the audio recording and a portion was unintelligible. The remaining audio recordings transcribed well. Transcribing the interviews allowed the researcher to listen to the recordings several times and get really immersed in the data. Notes were made about the researcher's observations and reflections about the interviews during the transcription

process as suggested by Pietkiewicz and Smith (2012). Microsoft WORD was used to save comments but the transcription itself was imported into MAXQDA to support the coding. Figure 1 is an example of how exploratory comments were used:

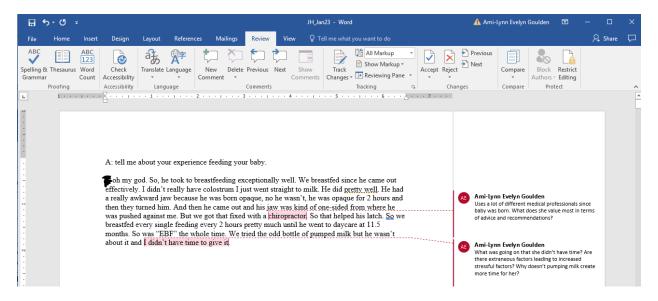


Figure 1: An extract from an interview with Jane about her feeding experiences with researcher's notes.

The exploratory comments helped to later identify emerging themes. Concise phrases were created at a higher level of abstraction but they were still grounded in the detail of the mother's story (Pietkiewicz & Smith, 2012). Figure 2 is an example of the same transcription using a higher level of abstraction.

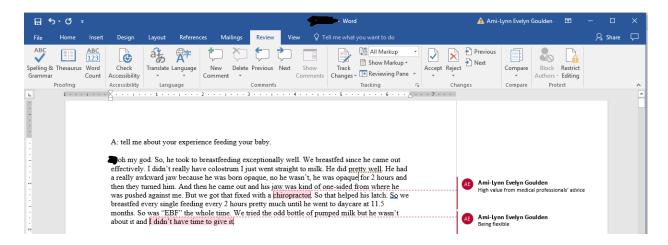


Figure 2. Example of developing emergent themes.

The notes were used to provide some reference and basic understanding before the initial coding in MAXQDA. Themes were compiled for all the transcripts before looking for connections and clusters through the axial coding process (Pietkiewicz & Smith, 2012). Figure 3 is a screen shot from MAXQDA of the retrieved codes.

```
MAXQDA
Code System [505]
       First Year" [1]
      Guilt [2]
      Resources and Supports [15]
             FB groups [5]
      Partners [14]
      Getting enough [22]
             Getting weighed [2]
      Breastfeeding [12]
             pumping [4]
             Barriers to BF [4]
             BF initiation [9]
             Weaning [17]
      Solids [2]
             Purees [11]
             Food groups [4]
             Food Advice [25]
             Satiety cues [7]
             Baby sign language [7]
Intro to solids [11]
             Eating solids interactions [25]
                    Feeding on Demand [1]
Feeling like child is done [3]
                    choking [1]
                    Spoon feeding [9]
      Feeding Styles [20]
             Making Decisions around food styles [15]
                    Observing Friends [9]
                    Extended family influences [17]
             Offer choices [3]
             BLW [22]
      Daycare [11]
             Eating after starting daycare [21]
             Daycare menu [11]
                    Feeling relieved [2]
             Happiness with the Daycare [9]
             Communicating with Daycare [19]
Eating patterns at daycare [25]
             Transition to Daycare [16]
      Soother [1]
      Maternity leave [1]
      Sibling Comparison [22]
      Sleep [6]
      Feeding Experience [4]
      Intro to cow's milk [13]
      Return to work [9]
      Bottle Feeding [22]
             Sippy cup [14]
Sets [0]
```

Figure 3. Screen shot of retrieved codes from MAXQDA.

Themes

Five themes emerged from this data on breastfeeding mothers' experiences with infant feeding in the first 18 months of their child's life: weaning stress, child care centre partnership, infant feeding burden, resources and recommendations, and children's agency. They are introduced in Figure 4 with introductory quotes from the women.

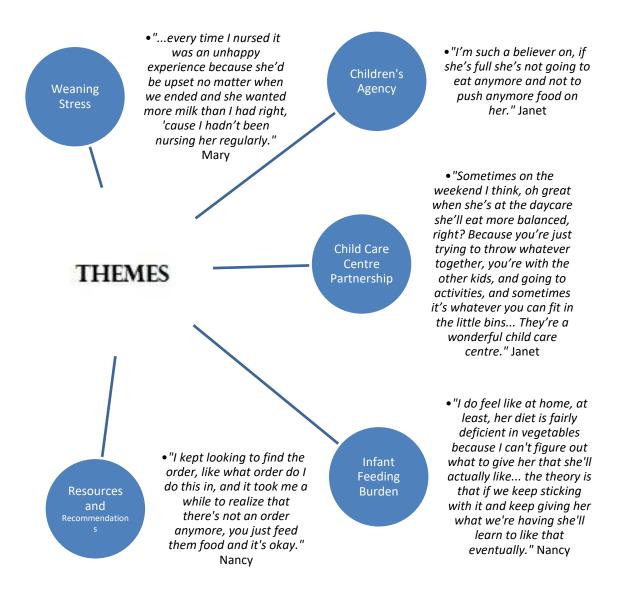


Figure 4. Five themes listed with evidence from the mothers delineating their meaning.

In addition, there was an overarching progressive pattern that emerged throughout the lived experiences of the mothers describing infant feeding experience in the first year. It appeared that the mothers and their children went through similar challenges in the first year and had comparable experiences when introducing the child care centre as part of their feeding experience (Figure 5). This pattern shows similarities that likely contributed to the emergence of

the five themes. Highlighting this similar pattern is helpful to understand the themes in context. For example, the second-step in the pattern points out the failure to initiate bottle-feeding. The purpose of bottle-feeding in these stories was to have someone other than the mother feed the child to alleviate some of their responsibility and allow somewhat of a break. Bottle-feeding attempts were unsuccessful in all the cases, which likely contributed to both themes of weaning stress and infant feeding burden.

The five themes that appeared in the data are extracted from this progressive pattern that emerged over the first year regarding mothers' infant feeding responsibility as the primary caregiver and decision-maker. Five out of six mothers in this study took a full one-year maternity leave from their full-time employment and returned to their positions. The sixth mother returned to full-time employment after seven months of maternity leave. Their leadership in terms of infant feeding continued past the first year and the child care centre staff became the second-biggest influencer in the child's life with their feeding. This suggests that the experience with infant feeding with these women was that it commences with the mother being the only person able to feed their child and then develops into infant feeding being their responsibility and burden after returning to work. The initiation of the primary caregiver appears to translate into an unequal relationship of unpaid labor in terms of infant feeding past the first year. This progressive pattern with supportive quotes from the women is better illustrated in Figure 5:

Breastfeeding Initation (at birth)

- Mothers are decisionmakers and leader in infant feeding decisions.
- Mothers seek evidence-based support as needed.
- Fathers support mothers by following their lead.
- "...our whole first night home she was iust up screamina all night and I couldn't get any food into her... she was so dry like her mouth was dry to the touch, she was so dehydrated. And so at like three or four in the morning I sent the husband to the 24hour Superstore to buy formula because we needed to, she's dehydrated ... but I was like so scared of all the literature on nipple confusion and a baba so we just dropper fed her some formula until she seemed content and then called the hospital the next morning." Nancy

Failure to introduce bottle

- Mother continues to be key decisionmaker. Pressure on mother to be key player with infant feeding.
- Initiation of bottle unsuccessful with the hope that father can take on some of the role.
- "We tried bottled milk a couple of times but he really didn't, he would be like, "oooo this bottle thing looks interesting" and take two sips and then throw it away. And 'cause we were trying to see if my husband could help with bedtime, so I could have like a little more time where he wasn't touched out, and [my son] just wasn't interested in it. So we didn't really bottle feed because he didn't want it and I didn't have the time." Jane

Introduction to solids (around 6 months)

- Mother seeks evidence-based resources on how to introduce solids.
- Experiences their first infant-feeding related stress since birth when weaning commences.
- "So I'm big on resources and one of them is [removed namel Resource Centre ... so for activities we always go that way. And so they had something called "Baby Time" where you can bring your baby and the nurse comes in once a month, or something, and this program was once a week. So that's when they would talk about nutrition and kinda go through the different stages." Janet

Transition to Child Care Centre

- Mother introduces sippy-cup or straw-cup prior to child care centre transition. Child care centre becomes a partner in infant-feeding along with the mother.
- Trust is built between child care centre staff and parents.
- "They'll ask you, 'Okay, she still hasn't eat much, what do you guys do that could help?' So we tried the star thing with those little Gerber stars... At which might have worked a bit, you know what I mean? It was particularly with her lunch meal because snacks aren't usually too much of an issue. And they just try cutting things in different shapes and sizes and stuff like that but they always ask us and I'm like. 'I'm really at a loss. I don't really know what to tell you... Make sure she's one of the first ones to eat so she has more time and stuff.' But now and then they'll say if she had more to eat than some days. I think that some of it's personality too. And ... there's a lot of people around, so there he doesn't eat as much as you would if you're home ... just by yourself because vou're so easily distracted. So I wonder if some of that doesn't play a part of it? And ... cause she definitely is shy of strangers." Andrea

Mother Returns to Work (1-year)

- Mother and child care centre staff are partners in child's infant feeding (mother is responsible at home and child care centre is responsible during the weekdays). This trend continues even though mother and father are both working.
- "I think [daycare staff] use the same approach... They're really good too... when he was [throwing food on floor] one of his teachers said they felt bad for him because he would throw his food away at meal time but not because he wasn't hungry. I think it was because his gums were so sore and then they said he would eat a little bit and then when mealtime was over he would play a little and then an over in the classroom and stand by the kitchen kind of like crying. So they felt bad for him because he was hungry... they will offer a snack or something like that outside of that structured time if they really are hungry - they're not going to let them starve. I think they would give him crackers or a little snack or a drink of milk or something. And then he would make up for it... So there's been meals at supper time when he's come home from daycare and he's starving and he'll have a massive portion of supper. But then I think, 'oh, he may not have eaten as much at daycare as he does other days.' Then, other times he comes home from daycare full and like he only eats a tiny bit for supper." Sarah

Figure 5. Consistent progressive pattern throughout the first year.

In Figure 5, the explanation for how breastfeeding mothers share the burden of infant feeding with child care centre staff is quite clear as the initiation of breastfeeding and inability to bottle feed places an extraordinary responsibility on the mother to be the sole person who can feed the child. This progresses over the year to the mother feeling most of the burden of the infant feeding choices in terms of weaning and introduction to solids. In these times of stress, mothers lean on evidence-based practice, such as Public Health material, or professionals, such as family physicians, for support and advice. Fathers play a supportive but secondary role by listening and following through with requests from the mother. When the mother returns to work, the division of labor appears to continue with the burden of unpaid labor placed largely on the mother. A trust grows between the mother and child care centre staff whereby the mother trusts that the child is receiving healthy choices during the day and this provides some relief. The most stress is felt after the weaning period when the breastmilk can no longer "round out" the nutrients. That being said, the child eating at a child care centre provides some relief of burden throughout the week, making the child care centre an important part of the mother's life.

Infant Feeding Burden

There appeared to be a clear gendered division of labor within the families regarding the responsibility of infant feeding, especially within the child's first year. All the mothers ended up breastfeeding for at least a one-year period, even though a couple of them did not have preconceived feeding goals and only wanted to breastfeed if it worked for them. A couple of the other mothers, such as Nancy, had a very challenging time initiating breastfeeding and had to seek public and private supports to help with this. Either way, all the breastfeeding mothers were the infant feeding leaders with their husbands following their lead and direction. One reason may be attributed to baby being with mother most of the time because of the feeding schedule.

Several mothers explained that because they were breastfeeding, they were unable to leave their child for more than two or three hours at a time. Jane said, "we breastfed every single feeding every two hours pretty much until he went to child care centre at 11.5 months. So, was exclusively breastfed the whole time." Like Jane, Mary also exclaimed that, "[Pumping] didn't work for me the first time ... rather than trying different methods of doing things. So, I just didn't pump for him but I was fine with that. I knew that I wouldn't be able to leave him for more than two or three hours."

All the husbands attached to the mothers in this study were supportive of their wives' feeding choices. None of the women described their partners as questioning their choices or being judgmental. Sarah said,

I remember between six and like 15 weeks, I think they have a growth spirt at six weeks, and so I found between six and 15 weeks he was really cranky in the evenings. He always had like a time between six and ten p.m. where he would cluster feed a lot and just constantly either want to feed or be like walked or bounced. But my husband would often, like twice a week, give [Hayden] bottles and that would help. But my husband never said, "oh maybe he's not getting enough milk or maybe he's not gaining enough weight" like he's very on board with everything.

Shortly after, Hayden stopped taking bottles all together. Mary described her husband as very easy going. She explained,

[My husband's] been incredible. You read horror stories ... Someone's husband wants them to stop nursing causing them some embarrassment because you haul out your nipple in the restaurant to feed the baby. You know? And you're like 'good lord!' [My husband's] just too easy going and he's okay with whatever. Whatever works. He

wouldn't tell me not to go to sea next week but after we went through everything he was more in my camp about going to sea with everything organized and he would have been completely happy if I said I'll stay here and keep nursing. Which is great, right? Why is he like that? He's just amazing. No pressure.

Even though fathers appeared to play a small role in the infant feeding experience, they were perceived by the mothers as a supportive figure. They did not share the burden and worry however, about whether the baby was getting enough milk, as this appeared to be wholly on the mother. This is likely due to them trusting in their wives to safely care for the baby.

The infant feeding burden on mothers continued past the establishment of breastfeeding into the introduction to solids around six months postpartum. All the babies were introduced to solids somewhere between 5.5 and 7 months, which was initiated by the women. The approach and feeding style was also determined by the mother except for Sarah where she indicated that it was more of a compromise between her and her husband. Sarah explained that,

We did do BLW. I was nervous because it was our first baby so we didn't really know what we were doing. But I knew I didn't want to do all purées. So, my husband and I compromised. He was more wanting to more start off with purées and I knew that I wanted to let him explore with like chunks of food and just even if he sucked it or gummed it. And we both didn't want him to be a picky eater. That was our biggest concern. We wanted him to be able to try anything and everything that he could and let him kind of be in control of it.

Andrea explained that because she was the primary caregiver she obviously took the lead. She said, "I did it because I was the primary caregiver for really the first year and then he kinda just

picked up from there so that's a yes for the most part." Even for Mary, who returned to work and her husband took parental leave at ten months postpartum. Mary said,

I plan but I'm not the cook in the house. So, if I haven't planned then [my husband] seems to pull the most amazing meals out of nowhere. I made Brussels sprouts with potatoes, whatever is available in the fridge. He's the cook. So, I also find myself rounding out his meal. Like he has a plan and then I'll grab a cucumber and red pepper. Mary continued to explain that she was the one who worried more about the children having rounded out meals with several food groups whereas her husband often gave the kids a ready-to-eat pouch if they did not want to eat their meal.

There were occurrences of worry and guilt that emerged in the mothers' infant feeding experiences added to the theme of 'burden'. Janet talked about her guilt a lot as she had challenges breastfeeding her three children when she really wanted to exclusively breastfeed.

Around the discussion of needing to supplement with a breastmilk substitute for her older children she expressed,

I felt like a failure. People feel like a failure when they have to do that. So maybe that's what the women who I was just putting down by saying "oh you can feed a little bit if you wanted to if you don't have a big milk supply" because I put so much pressure on myself to feed them breastmilk. I just felt so much guilt. I remember I had a roommate and [my husband] and I were downstairs and I was practically hiding that [formula] when I was putting it in the bottle to bring down because I felt so guilty but nobody cares. You feed your baby whatever. No pressure. Yeah, it's hard though. We feel that "Momma guilt" for everything, right? You feel guilty about everything.

For the mothers with multiple children, the guilt seemed to decrease and confidence seemed to increase comparing youngest children to oldest. Regarding the introduction of solids Janet said, "I don't feel pressure to do things like I did with my first two kids and it was just, oh she noticed the other kids eating something and she would try to get it herself and I said okay, she's ready." Even the feeding method used to introduce the solids became less burdensome with multiple children, especially in Janet's situation. She said, "It sounds so weird but with my first child, you know, you're all 'hey I gotta mush that and spoon feed!" Then as I get more comfortable kinda just let it go a little bit ... to cut it into chunks and do the BLW." Regardless of the circumstances leading to the infant feeding burden, all the mothers seemed to experience the brunt of it in some way but seemed to decrease when the women had multiple children.

Weaning Stress Around The "First-Year"

All the mothers interviewed had returned to full-time work following a one-year maternity leave except for Mary. Mary used ten months of her maternity leave before switching with her husband, but she did not introduce cow's milk to her son, Jake, because she continued to breastfeed in the morning and all throughout the night. Because the mothers were returning to work after one-year, weaning from the breast revolved wholly around this time frame. Janet, Mary, and Sarah were still breastfeeding after returning to work but when their infant breastfed was dependent on their work schedule and availability. Feeding, being the first priority, adjusted once the mother returned to work. Mary was facing a very difficult decision as she was contemplating whether to do a tour at sea or continue breastfeeding Jake, because she could not do both. She grappled with this decision,

So, it's seven days from now... I've just been reading about early weaning. There's all these reasons but they key reason to go now is so my husband and I aren't going to sea at

the same time. Because we'd rather the kids didn't need a nanny or be sent away to grandparents or something for a little while so if I get my sailing out of the way when my husband's at shore, then he can go. So ... I was frantically googling because I'm the one who's finding it the hardest, all the reasons I should go, but I'm wondering if it's going to affect his brain development because there are some studies on Kellymom² that gives you all these links. Then there's a study in Brazil that say people, every month of extended breastfeeding, these people either have an extra I.Q. point, or they are making more money, or are more successful. They make these correlations but then there's all these arguments that breastmilk adjusts for the brain and you're supposed to nurse overnight but ... the water's so muddy because of formula cause there's the formula companies and they want people to buy formula and you want people to consider formula as an alternative so you can give it through the night ... I don't know. The studies are all over the place there are so many arguments on either side ... 3 points on an I.Q. may not be the end of the world but it means a difference on like 10 to 30 grand of income during the years the kids are in university, right?

Mary's burden of the decision between whether to continue breastfeeding or go to sea for work appeared to be quite stressful for her and she expressed that she was indeed experiencing it harder than her husband.

The failure to introduce a bottle in the beginning, which would allow the mother some relief, was less of a concern than problem solving how the child would drink cow's milk once weaned. Jane said, "we tried the odd bottle of pumped milk but he wasn't about it and I didn't

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² Kellymom.com is a website that provides evidence-based information on parenting and breastfeeding

have time to give it". But then after transitioning to the child care centre it was more complicated for Jane's son to drink cow's milk after being weaned. She explained,

...After he was weaned, he still takes to his bottles at child care centre but it's mostly like, 'oh look at me I have a bottle' that he's never consumed out of because he doesn't like them. I have a lovely cabinet full of different bottles and he didn't want nothing to do with any of them. So, we just did a little munchkin cup is what he started drinking water with at six months with supper just to get used to it because he really only took to straws. If he was taking straws out of cups at restaurants and then at nine months he went to a normal straw cup. And now at 15 months he's starting to use an open cup so we're going to start working on a little less regulated cup either go to a wow cup or go to like a standard sippy cup where it's free flowing just to see if he'll take to that because he seems to have a great interest in that. Yeah, he doesn't drink milk, he doesn't want milk so he had free range to the yogurt pouches. If he says he wants yogurt he gets it 'cause it would be no different than him drinking milk.

All the mothers thought about how cow's milk would or should be introduced into the child's diet, since they were exclusively breastfeeding and would be returning to work. As evidenced by Jane's story, all the children had difficulty transitioning from breast to bottle at some point during the maternity leave, so mothers worried about how they would physically drink the milk. Like Jane, preparation began before the maternity leave was over to prepare the children for cow's milk at child care centre.

Sending pumped breastmilk with the children to the child care centre was an option for all the mothers but the difficulty in the planning and carry through to send the milk was a challenge and those that tried all stopped after a brief period. Cow's milk became a perceived

tool that ensured the child was getting their recommended milk quantity for the day. Sarah explains that,

... After he had been in child care centre for about a month, when he was 13 months old, I was confused and worried that he should be drinking more milk since I'm not around as much and I knew that he was only drinking 4 ounces a day of breastmilk when he was at child care centre. So, when you breastfeed you never know how many ounces your baby is getting so I wasn't used to stressing about that. His weight gain had always been great and he was growing and healthy. So, when it came time to think about how much milk was he getting in a day, I remember taking him to the doctor at 12 months and asking my physician, "how much milk should he be drinking a day?" I had no idea. She had said, I think, it ranges but maybe 14 to 20 ounces a day at 12 months, I can't remember, and I definitely knew he wasn't drinking that much. So, we did at 13 months give him cow's milk. And that took some of the stress away too. Like, I knew that if I wasn't around that he would gladly take cow's milk. I know some kids have a hard time transitioning to cow's milk so he drank it well right from the start. He didn't seem to mind expressed milk or cow's milk. So, if I didn't have enough pumped milk and I was working like a night shift and my husband had to put him to bed or was home with him all day he would gladly just take cow's milk for [my husband].

Andrea had an exact plan for how to wean Maxine before returning to work after her one-year leave. She said, "I just would drop out one breastfeed every couple weeks until we got to a year and by the time she was a year and I was returning to work then she was breastfeeding morning and evening if I was here, which I wasn't always because I work 12-hour shifts." Unlike Andrea,

Sarah and some of the other mothers really wanted their child to self-wean and appeared to have some anxiety about what that would look like. Sarah expressed that,

...He's 16.5 months and he's obviously not breastfeeding as much. Even the time he turned one he was breastfeeding right before I went back to work. He was still breastfeeding five times a day. I remember thinking, 'how am I going to go back to work?' Like, I didn't want to force the weaning of breastfeeding because I didn't want to suddenly take it away from him and I knew that child care centre transition would be hard enough as like a change. So, I just figured if I'm still breastfeeding when I go back to work I wasn't sure what that was going to look like but I figured he would naturally decrease his feeds because I wouldn't be around as much. And I knew that I could pump off a little bit on my breaks. I just thought I would wing it and see how it went. And to be honest, I figured that he would be self-weaned completely maybe after two or three months of me being back to work but he still hasn't. I'm okay with that. Like, now he's breastfeeding if I'm home on my days off he'll breastfeed for a couple minutes in the morning when he wakes up, a couple minutes before nap at 12, and then he'll breastfeed before bedtime when I put him to sleep and that's it. So, two to three times a day. But I do work 12-hour shifts ... So, when I'm working those four days I really don't see him for like over 48 hours and so he doesn't breastfeed for those two days and I'll just pump for like five minutes once a day at my shift. My milk supply has definitely gone down but then he'll feed when he sees me next and he comes looking for it. So, I don't want to be the one to like to just take it away completely.

It did not appear that any of the women struggled with the decision of returning to work, it was assumed that they would return to work after the year and their child would transition into a child care centre even though there were challenges associated with it.

In addition to the stress weaning caused around the introduction to cow's milk, mothers also worried about whether their child was getting enough nutrients when the breastfeeding decreased. For example, Nancy said,

In the past, probably, month or so, I'm starting to worry about it a little bit because she's gotten so picky and because she's nursing, I think, less duration. So, I think she's getting less calories and nutrition from me, and she's actually lost weight this month. And I think that was a combination of having a bad cold with a fever and no appetite and then a stomach flu for a week, and then another fever for a week after that that she just been burning lots of calories but not taking much. But that made me worry a little bit, 'oh she's actually losing weight maybe I'm not doing this right?' And so now I'm starting to think maybe I'm not feeding the right things, maybe I'm not offering as much, and the whole baby led weaning thing is that when they tell you they're all done, believe them, and trust your baby to manage their nutrition, which is great in theory, but when you see them starting to lose weight you think 'Oh, maybe this isn't going the right way.' So, I haven't really done anything about it other than put butter on her toast, you know, underneath the peanut butter. And I'm still nursing her, but I do worry that when she finally weans, am I feeding her enough and is she getting what she needs?

Several mothers talked about how the breastmilk really rounds out the nutrition from solids, so even if their child was being picky or did not appear to be eating many solids, their worry was lessened because the breastmilk would even it out. When they were approaching one

year and the breastmilk the children were receiving decreased, getting the required amount of nutrients became more of a concern. Nancy stressed that,

I think that because I kept nursing her straight through I felt pretty comfortable that even if she wasn't getting calories and nutrition from the solids she was eating, she'd be getting it in breastmilk. So, it made the first few months for me really relaxed because I knew that she was getting what she needed anyway even if she wasn't getting much.

All the mothers identified some sacrifices needed for the success of their child's "first-year". When bottle-feeding or other approaches did not work out, there seemed to be some relief in knowing that it would just be for the year and then they would return to work. Transition and weaning also revolved around the one-year period.

Resources and Recommendations

Given the stress and burden around weaning and the introduction to solids in the first year, every single mother sought out resources and recommendations depending on the need, regardless of whether they had one or multiple children. Some of the supports used by the mothers were formal and public, such as Public Health drop-ins or workshops, and speaking with the family doctor; some were formal and private, like paying out-of-pocket for a lactation consultant; and others were very informal, like talking to other mothers in Facebook groups.

None of the mothers used family members as resources for recommendations and advice around infant feeding.

Finding helpful advice for these mothers posed a great challenge, especially around how to introduce solids into the child's diet. All mothers demonstrated their own initiative to seek out support when needed and ask questions but were not always successful in getting what they needed. Because the infant feeding experience happens over the year, different resources are

needed at various times, which can make the experience more complex. For example, Nancy had the most difficulty establishing breastfeeding and needed a lot of formal support in the beginning. She paid privately for a postpartum doula when public resources were not helpful.

After Nancy's daughter, Rachel, was born, she had one good latch in the hospital before she transitioned home. Rachel lost 12% of her birth weight within the first couple days and they visited a lactation consultant at the hospital who helped them establish a breastfeeding plan, which consisted of getting a tongue tie snip procedure and using a feeding tube. Nancy tearfully explained that,

...a week went by and she still wasn't latching and I was starting to panic. Like, you can't tube feed a baby for the rest of their life so what are we going to do? And so, we went to the Public Health drop-in thing at about nine days and kind of went through things there and it still wasn't great... I think probably the two biggest supports, one was the other moms there who were just able to say, 'yes, it's hard'. Like, it's okay for it to be hard, you're normal. But also, a private postpartum doula, although she's just finished her lactation consulting ... I ended up calling her and just saying how like we're losing it. And she was great cause she would come over and spend time. Instead of the Public Health nurse saying, 'oh none of those things are working keep trying' she would actually kind of troubleshoot a little bit and would agree like yeah. I remember three weeks in taking Rachel to go see her ... and her saying to me, 'that's not normal, this is weird, you're doing everything right and it's not working, and maybe there is something medical or whatever', right? So that's when I decided to start trying the Zantac but she was supportive just cause she kind of, like didn't blow me off: 'try this and if it's not working keep trying'. She had like useful troubleshooting techniques and was supportive

from the emotional side of things as well. So, I would say ... she's the reason we breastfeed, like it would not have happened had it not been for her coming and like helping us and walking us through it and like giving the regular feedback and checking in and emailing and all that kinda thing. So, I'm glad we had her, yeah. I wish, I think that's probably what Public Health nurses would love to be able to do if they had the resources but I think they're stretched so thin that that those resources aren't there. But she was great and having a mom group that you can go to where other moms were at the same stage as you and also find it hard and kinda just normalizing it. Those were the two big things probably.

A couple of the mothers who were unable to access a lactation consultant to assist with breastfeeding initiation turned to informal supports, like Facebook groups. Janet explained that,

I had to reach out. I have friends from La Leche League and also, we have this group on Facebook, it's called the 'Granola Counsel' and it's these women, a lot of women, throughout Nova Scotia and if you have any questions about anything, you can post it and people kind of post after that. So that was great for, you know, giving examples and what worked for everybody. I had some friends come in and help me with my latch because the latch is always the worst. And when you first breastfeed, I remember thinking, I can't remember if it's sore because we're just starting off again and she's always on one boob or is the latch off? And I just couldn't figure that out really, so I had some friends come in to make sure I was doing everything right, they had been through it before, they had the training whatever La Leche League has. Yah, it worked out.

In all the mothers' experiences, the onus was on them to figure out the proper support needed and follow through with it. It took coordination on their part as well as flexibility to access the resource.

All the mothers sought out resources and recommendations revolving around the initiation of solids at six months old, even if they had children before. The family doctor appeared to be the most accessible resource because they were attending appointments to get their infants weighed anyway. A few of the women asked their doctor how to properly introduce solids but all their recommendations were different. It does not appear from the mothers' experiences that recommendations regarding the introduction of solids is standardized across the medical profession, even if this is the case within Public Health.

Jane received conflicting information from her Facebook group and her family doctor, which seemed to cause some stress and anxiety in not knowing what to do. She explained,

The only thing I think that confused me was the current 'Crunchy Mom Village' that I throw myself around with ... were all about 'food before one is just for fun.' So, I legitimately thought it was just to practice eating; I didn't know that they have six months of iron stores and then they start to deplete. So, then I was convinced my child is going to be anemic and anything that I was reading online was 100% not helpful. And so then I actually started to panic and the doctor looked at me and said ... 'how's food going?' and I said 'it's not, I don't know what to do and I'm having a hard time remembering like just make sure his food's really bland and super easy" and she was like 'why does it have to not have sauce or spice?' and I just looked at her and said 'I don't know' and then I started to cry because I was just totally overwhelmed by the whole thing... She said she started feeding her son at 4.5 months and he's had no long-term effects from it so she's

like, 'they're just recommendations but everyone starts to take them as gospel and then everybody starts saying people don't know what they're talking about when you know your own baby' and if it feels right then you do it and if it doesn't feel right then you don't do it.'

Jane continued to explain that what she really wanted was a chart illustrating the types and quantity of food to feed her son. Nancy sought out the same resource but something with that much detail does not exist. She explained,

So, I used to go to a mom's support group that was in [removed for confidentiality reasons] before it was cancelled and there'd be a Public Health nurse there every second week so kinda leading up when we were thinking about starting [solids], I went and talked to them and got the 'Loving Care' booklets that Public Health gives out. And I was finding it really challenging early because I was looking for that order that you're supposed to introduce things, because I know that when we were little, and even cousins and stuff that I had experience feeding, first you start the rice Pablum, and then you start oats, and then bran, and then you have to introduce vegetables first, and then the fruit, and it was this very prescribed order of giving things. And so, I kept looking to find the order, like what order do I do this in? And it took me a while to realize that there's not an order anymore, you just feed them food and it's okay. So, I did talk with the Public Health nurse a little bit, and I did look through that book, and then the baby led weaning book I had, and just other moms. Like most of my friends had kids before me so they all kinda had experience going through that, introducing foods already, so just chatting with them and getting ideas from them about what they gave and how.

Unlike with breastfeeding, the resources and recommendations for how to introduce solids seemed to be quite varied across the mothers' experience, which caused stress by not knowing what information to trust or where to find it. In discussion with the mothers, they did not question the feeding style or practical method to use when providing their child with solid foods. Their concerns were largely around how to introduce allergens, what food group to introduce first, and the recommended quantity that children should be getting.

Children's Agency

In my discussion with mothers about what the infant feeding interactions looked like and the feeding style the parents used, it was evident that a theme emerged across the stories that mothers were respectful and aware of their child's agency. This was not named or identified per se, but the mothers' perspective of infant feeding in general illustrated the importance they put on their children setting their own eating limits and developing this trust with them. None of the mothers considered themselves sticklers with one specific method but used information gathered from several sources and ultimately decided to do what worked for them and their child. Even the mothers who felt increased stress around the worry that their child was getting enough, did not try to get their child eat more than they wanted.

All the mothers identified BLW as a feeding style and were all able to name its general principles: trust when baby tells you they are done, provide a variety of foods and allow baby to choose, and give finger sized portions so they can eat on their own. Some mothers followed just one or two of these principles and some mothers attempted to strictly follow it. Everyone allowed their child to choose when they were finished eating. Each mother learned how to tell when their child was finished by observing their behaviour or communicating directly. The most common method used to determine satiety was sign language, with all of the children using the

sign for "more". Nancy talked about what it was like in the beginning when Rachel was learning how to sign. She said,

There was certainly probably a month where it would be ambiguous like "did you just say all done, do you want more, what do you want?". And so, if we weren't really sure, we might pick up a piece and ask, "did you want more of this?" And if she did she'd grab it, and if she didn't she'd not grab it or she'd push out her chair a little bit and we'd take the tray at that point. So, we might offer one more bite to clarify "are you really all done?" and usually after we take her tray away we give her her water cup still in case she wants something to drink before she gets down. But yeah, we've never tried to jam more food into her after she says she's done. Sometimes "more" is hard because we'll run out of what she wants and then we'll scramble to find a leftover pancake in the fridge or something to feed her.

Jane also talked about the intricacies around knowing when Nathan is hungry and full. She explained,

I know when he's hungry because I know what time it is. Like, he'll come over and want to sit in his high chair so I'll know, 'you must want something to eat', and then I'll go and say, 'this is what we have'. And I'll say 'blueberries?' and he'll shake his head no, or clap really, really, loudly and it's like cool! You want blueberries? Awesome! And then I give him his blueberries and he eats them. And then he'll let me know if he wants more. He'll sign 'more' or he'll sign 'all done' and we'll get out of the chair and go on with our day.

Most of the mothers clarified that they do not believe in pushing food onto their child or making children finish their food before getting down from the table. It was not something they were told by a professional but appeared to be their own personal belief. However, these feeding style beliefs are published in the "Loving Care" materials that most of the mothers admitted to reviewing (PHERWG, 2015).

All the families seemed to have a routine and ritual around mealtimes. They sat in a specific spot and their child sat in a specific chair. It seemed like there was always some sort of structure for the meal but within the structure the child could set their own limits. The researcher visited the home of four out of six mothers and within those visits observed their set-up around mealtime. All the children had their own seats, cups, and cutlery, which were set up the same way. The parents also sat at the table with them for the most part, except when they were finishing up the cooking. Nancy seemed to have the most routine out of all the families. She explained,

So, there's what we're doing, which I think is very structured in when we eat. Like, I'm not a big fan of kids running around and eating whenever they pass by food that they happen to see and eating all over the house, and I'm really not a fan of using snacks as entertainment. So, we don't eat in the car to keep her quiet, or eat when we're walking around the grocery store to keep her entertained... So, like my brother's kids just sort of eat whenever they feel like it. They'll ask for a snack 20 minutes before dinner and get a snack. They're allowed to fill up if there's fruit out. When they're taken to my parents they're allowed to fill up on that and they don't eat their meals, so really sort of unscheduled eat whenever and wherever. So, I think those two are very different. And then in terms of how you feed them. Like, I think letting the kid eat themselves versus

puréeing and spoon feeding, and going through the old-fashioned like, give them Pablum, then cereal, then puréed baby foods... I think there are two opposite ends, and then I think kinda tied in with that is letting your kid choose how much they want to eat, and deciding how much you intend for your kid to eat, and making sure they eat that much. So, I don't know if those all have names or fit into categories, but I think parents are probably on the spectrum somewhere between each of those extremes.

Ease and flexibility were also deciding factors into the decisions of how to feed their child. None of the mothers made separate meals for their children; everyone ate the same thing. This was to cut down on the burden of mealtime planning. BLW appealed to a couple of the mothers for this reason. They needed to find an approach that worked well for everyone in the family considering both mother and father are working full-time. Sarah explained,

And [BLW] seemed easy too because it meant I didn't have to prepare everything and freeze stuff and have like mushed food everywhere I went. Like, I knew whatever I was eating he would eat and then it was also extra incentive for us to eat healthy because I couldn't just throw in a frozen pizza in the oven for supper because whatever we were eating he was eating too. So, it was really convenient that like if we were having like a turkey dinner with potatoes and vegetables or if we were going to have omelets for breakfast that he was going to have the exact same thing.

Sarah continued to explain that she likely chose BLW because the approach was like an extension to breastfeeding on demand. She said,

I do remember looking at some graphs ... at the doctor's office, like feeding guidelines, like how much to feed your six month old. I remember it was very specific ... measured in cubes or ounces and I remember looking at it and like stressing out because I wasn't

used to measuring how much he ate of anything and I was like, I don't know how I'm going to keep track of how many ounces of vegetables he ate, like iron, and all the different servings of food. So yeah, I found that was weird like, I think that definitely pushed me more towards doing the BLW too because it just seemed less stressful. I could just offer him food, like at mealtime, and see if he would eat it or not and I knew he was still breastfeeding a lot too so I knew he wasn't going to miss out on nutrients. I knew he wouldn't starve.

None of the mothers attributed the feeding interactions or recognizing their child's agency as a formal or evidence-based approach. It appeared that it was a natural way the mothers engaged with their children and a value that was important to them.

Child Care Centre Partnership

The mothers unanimously agreed that their infant feeding experience with their child's child care centre was positive overall. Yes, there were stressors around the transition to the child care centre and transition to cow's milk, but after the children settled in, the child care centre provided some relief in this regard. It seemed like the child care centre staff and mother formed a partnership regarding the infant's feeding. A trust developed quickly whereby mother knew their child was getting adequate food choices throughout the day and there would be daily communication about this. Something that was highlighted in most mothers' stories was their happiness with the child care centre menu. They knew that these were approved by a nutritionist and most women felt like the variety on the menu was better than what their children were eating at home. This provided some relief knowing that healthy food choices were being offered during the day and mothers just had to concentrate on evenings and weekends. Regarding her worry about Nathan eating only a certain food, Jane explained that she was not concerned,

...because I know that during the week he's eating way better than I would ever be capable of feeding him because that is someone's entire job is to make sure that he's eating properly. There's very little that he won't eat. Like, I can see the menu when we walk in the morning, they have a white board on the parent board that says what we're going to eat today. So, I'll look and say 'oh, buddy you're going to have blueberry loaf'. That's his favourite thing.

The communication and process during the transition phase was inconsistent across centres. At Mary's centre they forgot to have her fill out the allergy and food information forms whereas at other centres they made a point to have a conversation about accepting pumped breastmilk. None of the mothers felt unwelcome to bring their pumped breastmilk, but they noted that it was not always discussed.

In addition, none of the mothers, or their husbands, observed their children during lunch time on their transition days; it was not part of the orientation. They were unable to provide details about the feeding interactions at child care centre or whether approaches were the same as at home, although they assumed as much. From Janet's perspective she explained,

...it's like going to your doctor: you expect them to be professionals and they're the best at their job. I also think it's the same with the child care centre. I know that their menus have been [approved], a nutritionist has worked on things with them, it's the best out there... Sometimes on the weekend I think, oh great when she's at child care centre she'll eat more balanced...

Knowing that the children would have balanced choices throughout the week did not appear to change the choices parents gave at home. It did, however, provide some relief and alleviate some of that burden from the mother. All the mothers continued to strive to offer healthy choices.

Another factor that indicates this is as a true partnership is the positive change in infant feeding following the transition to the child care centre. There was some knowledge translation that happened for many families, most specifically with the sign language. All the child care centres used signing to communicate "more" and "all done". The families who were not already using it, began using it at home. Nancy said, "[Rachel's] had the signs reinforced there as well as home, so that's nice that those signs work now, that she can communicate well with us." Jane thought that Nathan's eating at home improved after starting child care centre. She explains,

The child care centre ... definitely made him understand the social aspect of food a little more, where food has such a social aspect in our culture. Because they eat as a group, they all eat together ... So, they all get in their high chairs, they all wear their bibs, they all sit together. So, I should say this, since he started at child care centre feeding time is less stressful because I don't know if it's age or just experience, but he knows what to do when I put food down in front of him. And sometimes I can't get the food there fast enough. And like he'll offer bites to us; we're not allowed to have them but he'll offer bites to us and he probably eats more. Like, I can see how he likes to eat his food.

When mothers faced feeding challenges at home they appeared to feel comfortable discussing them with their child's child care centre educator and asking whether something worked well for them at the child care centre to address it. For example, Sarah said that Hayden began throwing food on the floor at home during mealtimes, which was unlike him because he is typically a very good eater. She suspected that it could have been caused from the four or five molars that were coming in and causing his mouth some pain. Sarah said,

I did talk to his teachers about that last month when I picked him up one day. I had asked them, 'do you find he's eating much or is he throwing more food on the floor than he's

eating?' There were a few weeks they said that like they felt bad for him because they know he's a good eater but there were a few weeks he was throwing food on the floor. Sarah and Hayden's teacher kept communicating about this and his teacher made sure that the daily log was updated with information on how much he ate that day.

Overall, the child care centre staff seemed very receptive to the mothers' wishes and accommodated a variety of bottles and sippy cups, and decisions around cow's milk, breastmilk, and water. This seemed to go a long way in terms of building trust with the mothers, knowing that staff were committed to replicating what they were doing at home.

Summary

The dominant themes that emerged from the mothers' stories closely reflect the circumstances around their child's first year. If some of the circumstances were to change, such as a shorter maternity leave or the mother not returning to work after one year, the themes would likely change as well. Although some themes were quite positive, like child care centre partnership between staff and mother, there were a variety of challenges throughout the first year that the mothers had to overcome. Mothers demonstrated a great deal of problem solving, coping, and resiliency throughout their struggles and eventually all were ultimately able to label their infant feeding experience as positive.

Chapter 6 – Discussion

The objective of this project was to learn about the mothers' infant feeding experience up to 18 months postpartum. Using a phenomenological approach, the study gathered experiences through the mothers' perspectives and learned how they made meaning out of these experiences. It is hoped that from the exploration of these stories, new data will supplement existing literature, recommendations can be made to ultimately improve mothers' experiences in the future, and topics for future studies will be identified.

Infant Feeding Burden and Child Care Centre Partnership

Overall, the mothers indicated that their infant feeding experiences were positive, especially once child care centre staff started assuming some of the feeding responsibilities. This is consistent with the findings from the *Nutrition Standards in Child Care Project* whereby parents were both familiar and had positive attitudes with the *Standards and Guidelines* (Kelly et al., 2015). This study complements those findings because more detail was learned around what exactly makes the experience positive. The most apparent example is mothers' happiness with the menu, which is part of the *Standards for Food and Nutrition in Regulated Child Care Settings*. Every mother in this study mentioned their contentment around an approved menu being part of the child care centre program. Some talked about this in depth, particularly around how the menu eases some of the burden of meal planning at home.

As discussed in the infant feeding burden theme, it appears that the child care centre experience provides some relief in that regard. The child care centres in this study seem to use a client-centred care approach ensuring that each feeding plan is based on the individual child and their family, which appears to contribute to an overall positive experience. There are overarching *Standards and Guidelines* but the centres these children attended interpret and carry them out in

practical and individual ways. Therefore, the mothers felt safe and comfortable, which in turn decreased some of their stress.

Client-centered care approaches are becoming widespread, especially within the medical field (Kuo et al., 2012). This approach is referred to in several ways including 'family-centered care' and 'patient-centered care.' The philosophy behind the approach is that the patient or client will be more inclined to buy in to the service if they are treated as an important partner and decision maker. This will foster a more positive outcome of the service. The positive outcome of client-centered care was evident in the mothers' stories. The mothers asked the child care centre staff for recommendations, considered them a key player in infant feeding, and transferred some of the tools used by the child care centre home, such as using sign language and cutlery. No published studies exploring the relationship between child care centre approaches and family-centered care were found to support this finding, as there appears to be a dearth of information regarding this topic.

The preapproved menu seemed to be the second biggest factor which added to happiness with the child care centre. There was a common observation among the women that the menu had been reviewed by a nutrition expert, ensuring the meals met specific nutritional guidelines, and all the mothers felt they struggled with this some at home. None of the women were overly satisfied with their own meal planning and struggled to balance this responsibility along with everything else they had to do. Delegating some of this responsibility to the "experts" permitted some feelings of relief, as they believed meal planning at the child care centre was better than what they could do or manage at home. Nonetheless, the child care centre meals did not appear to change the way the families prepared their meals at home. The quality of their meals, as indicated by the amount of food groups they used, did not decrease once the children began

attending a child care centre. It provided relief because mothers knew their children were being offered a variety of homemade foods and they had fewer meals to make during the week. Meal planning was a stressor for the families as both parents worked full-time and some had additional children.

This finding is consistent with a qualitative study published from Denmark researching the implications of how "motherhood" is constructed in Public Health discourse (Nielsen, Michaelsen, & Holm, 2014). Their sample was similar: mothers approximately the same age with children between seven and 13 months old. Dissimilar was that only half of the children in the sample were attending an early child care centre. Of those children's families that were attending an early childhood program, they found these mothers reasoned with themselves that poor meal planning at home would be counter-balanced by the better menu at the child care centre (p. 340). In addition, they also found that stress was identified around meal planning due to busy family lives.

The concept of mothering guilt and stress around infant feeding appeared in several stories – particularly when women were unsuccessful with breastfeeding. It is common for non-breastfeeding mothers to express feelings of both guilt and shame (Thomson, Ebisch-Burton, & Flacking, 2014). In this sample, all the mothers reached their breastfeeding goals but a couple of them had difficulty in the beginning, which contributed to their guilt and shame. Thomson et al.'s (2014) study (n=63) explored how infant feeding can be considered a shame-inducing event. They found that perceptions of inadequate mothering by the mother herself can have a shame-inducing outcome. This is consistent with the stories of two mothers in this sample, who had difficulty breastfeeding in the beginning, and equated needing to use a breastmilk substitute as being a failure.

Resources and Recommendations

From the resources and advice theme emerged a concern that medical professionals were not providing mothers with the standard infant feeding recommendations from WHO and Health Canada. Even though the mothers sought out extra support around introducing complementary foods, they received varying advice from their family doctors. This is quite concerning as several professional bodies in Canada have adopted WHO's recommendations. In addition, this would be very confusing for caregivers receiving the information and may discourage the adoption of evidence-based standards at home. In Jane's example, she said the family doctor told her that "recommendations start becoming gospel" and encouraged her to do what she feels is right for her and her baby. The family physician continued to tell her that she started feeding her own child at four and a half months and he had no negative long-term effects. The availability of evidence-based standards permit objectivity in the health professional's practice. Jane's story is an example of how subjectivity on well-researched standards prevents them from being used.

Varying recommendations did not appear to be the case with the Public Health nurses as they commonly referred to the "Loving Care" materials that are widely published and distributed for free in Nova Scotia. One suggestion that appeared to be completely neglected by both family physicians and Public Health nurses was the recommendation to breastfeed up to two years postpartum. Some of the women were committed to their infant self-weaning and others were committed to weaning their infants at the one-year mark. None of mothers mentioned the two-year recommendation and it did not seem to be identified by their professional support people.

This finding is similar to a mixed-methods study done in Ireland exploring the recommendations given by health professionals about the introduction of complementary foods (Allcutt & Sweeney, 2010). Researchers asked family physicians, practice nurses, Public Health

nurses, and community dietitians about their role in providing recommendations around solid foods. Public Health nurses acknowledged a clear role in weaning advice compared to only 7% of family physicians, suggesting that misinformation about the introduction of solids is present among professionals. This is consistent with the mothers' experiences in the Halifax sample. The recommendations from several family physicians was inconsistent and the advice from Public Health nurses was most consistent with guidelines published by WHO. It was not clear in the Halifax sample if those physicians felt they played a key role in weaning recommendations or not; however, some mothers did not even discuss with family physician. Also consistent was that Public Health nurses (97%) were more apt to redirect parents to published literature than family physicians (7%), which was parallel to the Halifax sample.

Public Health nurses appeared to have varying roles in each of the infant feeding experiences. Most mothers mentioned the Public Health drop-ins that are available with a registered nurse who can assist with a variety of issues. One mother attended a workshop, facilitated by a Public Health nurse, with most participants being early childhood educators. She did specify that some of the information presented revolved around feeding style, such as not bribing your child with sweets. Nancy did not have a positive experience with her Public Health nurse when she needed breastfeeding support in the first weeks postpartum. She did not believe the service was structured in a way to provide extensive support for women struggling with breastfeeding. She wondered if Public Health nurses would like to play more of a role but they do not have the time to dedicate to each struggling mother. She resorted to paying for a private lactation consultant who could help her problem solve her individual issues.

Children's Agency

In addition to inconsistency, recommendations around feeding styles were very minor by both Public Health nurses and family physicians. The recommendations the mothers received around complementary foods wholly revolved around introducing allergens and cow's milk, weaning, and the quantity and quality of the food. The "Global Strategy for Infant and Young Child Feeding" itself recommends that infants be introduced to foods with a responsive feeding style (WHO, 2003) but this was largely overlooked. Mothers had a very challenging time answering the interview question about feeding styles and they all assumed that it was synonymous with feeding method, such as BLW. The term "responsive feeding" was never mentioned by them. This is indicative of a disconnect in the knowledge translation of responsive feeding being the standard for infant feeding practice. This group of women actively sought out recommendations for best practice but were still unable to get this information suggesting that it is not easily available, or the terminology and jargon is confusing between feeding method and feeding style. No published studies exploring formal recommendations around feeding style was found, as this appears to be another topic with scarce information. However, in Allcutt and Sweeney's (2010) study they asked health professionals only about the timing of when solid foods should be introduced and which foods should be introduced and when (p. 6) suggesting that feeding style in their context was also not deemed as high of a priority compared to the former.

The mothers in this study all practiced at least some of the principles of responsive feeding, even though they did not identify it as their chosen feeding style. Their perception of their child was very consistent with Farrow and Blissett's (2014) theory of maternal mindmindedness. They did indeed view their child as their own mental agent and respected their

limits around food choices and quantity, which is consistent with a responsive feeding style. It was not clear whether extended breastfeeding influenced mind-mindedness or original personal values influenced extended breastfeeding. Nancy expressed in her interview that she would have always respected her child's limits because it is part of her personal values but for the other mothers the choice was less clear. Responsive feeding methods are plainly introduced and described in the 'Loving Care' materials and most, if not all, of the mothers reviewed and used the booklets in their first year postpartum. The term 'responsive feeding' is not used in the booklets which may contribute to a lack of knowledge around the formal wording. All the mothers were familiar with the term 'BLW' and knew the general methods behind it. This suggests that naming the method within the booklets and by health professionals may be a positive way to circulate it as the standard infant feeding method.

Privilege and Infant Feeding

The demographics in this sample are critical to discuss. Firstly, all the women fell into the groups that describe the majority of mothers breastfeeding at six months postpartum. As we know from Statistics Canada (2015), over three-quarters of women who reach the six month milestone are 30 years or older (77%), have postsecondary education (76%), and live with their significant other (91%). This was consistent with this sample, with all women successfully breastfeeding for minimum one year. The data suggests that privilege is a factor in extensive breastfeeding and insinuates that extraordinary resources and support are needed to reach certain infant feeding goals. For example, insufficient milk supply is the number one reason indicated for the discontinuation of breastfeeding before six months (Gionet, 2013). There are a variety of reasons why women may not have a sufficient milk supply, however, for the mothers in this sample, their baby 'getting enough milk' was never a concern. Follow-up questions revealed that

the mothers were weighing their babies regularly, which stifled any worry in this regard. The scales they used were either at a family doctor's office or a Public Health drop-in. There is a certain level of understanding and accessibility that needs to exist for baby weight to be used to measure whether the child is 'getting enough milk.' Mothers or caregivers need to be able to access the clinic and drop-in centres and that requires a regular means of transportation. They also need a basic understanding of what the numbers mean and how they can be helpful. These barriers tend to shatter as the socioeconomic status rises, which suggests that infants from a lower socioeconomic background are less likely to be breastfed.

This is also consistent with the philosophy of the social determinants of health. Even though breastfeeding initiation rates are incredibly high in Nova Scotia (87%), a major disparity exists between babies who have access to breastmilk and those that do not. As we know, the social determinants of health include income and social status, social support networks, education, and employment (PHAC, 2016) all of which were incredibly strong with the families in this sample. In Ontario, Health Nexus, in collaboration with the Ontario Ministry of Health and Long-Term Care, completed a project focusing on populations with lower rates of breastfeeding (Best Start Resource Centre, 2014). They completed key informant interviews with health professionals working with this group of women. They found that the social determinants of health and individual circumstances were identified as challenges for the initiation, duration, and exclusivity for breastfeeding. In particular, limited social support; poverty, food and housing insecurity; short maternity leaves; and lack of accessible support and services were identified as barriers.

Empirical studies suggest that breastfeeding has positive long-term effects, such as increased academic achievement in later life, that are protective factors for the social

determinants of health. Babies more at risk of the social determinants of health have poorer health outcomes; therefore, having access to breastmilk would be beneficial for them.

Breastfeeding can contribute to infant food security in the first year, but the children most at-risk of food insecurity experience the largest barriers to access breastmilk and successfully establishing breastfeeding is situational. A deep concern for food security was not an issue in any of the mothers' stories; however, some mothers mentioned the cost benefit of breastfeeding compared to purchasing formula. Jane indicated that saving money was a large motivator for her to both breastfeed and use cloth diapers. Breastfeeding as a food security approach is a multilayered issue in which success is dependent on a variety of contexts and situations.

The supports and resources used by the mothers in this sample was very interesting. None of the women used their mothers for advice or recommendations, which is not perceived as historically typical especially when all the maternal grandmothers had some relationship with their grandchild. This may be explained by a couple of factors identified by the women themselves. The first is the perceived significance of evidence-based research and practice by this sample of women. Studies exploring the decision making around infant feeding methods within varied socioeconomic households were not found. The hypothesis that families with a middle- to upper-class socioeconomic status consider recommendations and standards based on research by "experts" as having much more clout than firsthand experiences from previous generations requires future study.

The next factor may be the structure of the nuclear family. One published paper in the United States explored the prevalence of three-generation households and breastfeeding rates across the country (Pilkauskas, 2014). It found that three-generation co-residence was associated with lower rates of breastfeeding initiation and breastfeeding at six months postpartum. The

explanation of lower rates is unknown. These outcomes are consistent with extended breastfeeding in the Halifax sample whereby grandparents were neither living in the home nor provided much, if any, parenting support to the mothers. Some of the mothers experienced judgment or extra pressure from family members around infant feeding choices. Sarah said her family questioned her decision to use BLW methods and highlighted concerns often about the risk of choking. Nancy shared that in the beginning her mother kept telling her to transition to formula when breastfeeding was a major struggle for her. None of the mothers in this group indicated that they changed a decision based on the feedback from family members. They emphasized the importance of getting information from a health professional. This may be attributed to their post-secondary education or confidence stemming from support from their significant other. None of the mothers were using family members as caregivers. While having the one-year protected time off work, they all seemed to devote that time to their child's feeding and development. If grandparents are living in the home, it is easier for them to assume some of the child care responsibilities, which may include infant feeding practices. The mothers in this study appeared to value boundaries in this regard.

What may also contribute to a shift is the shortage of breastfeeding mothers who can help support future generations. With the invention and access to breastmilk substitutes, a generation of breastfeeding mothers was lost. Therefore, not only is breastfeeding no longer normalized, but there are few women who can pass on the skills and support to those now having children. In this sample, none of the maternal grandmothers had breastfed for an extended amount of time and the women did not feel they could go to them for support. The high breastfeeding rates in Tatamagouche, Nova Scotia is a good example of how normalized breastfeeding changes the way women seek resources. This town has successfully normalized breastfeeding in their

community and has a strong social support network that can provide hands on help to mothers in their breastfeeding journey. The mothers in this sample used mostly private or publicly funded resources when they needed help but this is dissimilar to the phenomenon in Tatamagouche (Sim, Price, & Kirk, 2013).

The mothers' infant feeding experiences were comparable in this study and some of the emergent themes were consistent in published papers. There appears to be a dearth of Canadian infant feeding research revolving around mothers' experiences and in the studies that are available, they lack diversity in their samples. Since there appears to be contradictions in infant feeding outcomes dependent on demographics, future studies exploring this phenomenon is needed.

Limitations of the Study

Several limitations of this study are grounded in the phenomenological approach itself. With any qualitative approach, bias is a primary concern in the interpretation of the data. Bias was mitigated somewhat in this study by the rigorous coding process and ongoing self-reflection; however, it can never be completely alleviated. Reflexivity was used to identify any personal biases (Clancy, 2013). It was also helpful throughout the entire process to ensure the researcher reflected on her own involvement in the interview and how her behavior may have influenced the telling of the stories (Clancy, 2013). The reflexive diary was beneficial in the research process to organize the researcher's reflections to easily check-in with them throughout the process.

The second limitation is the rigor and time the phenomenological analysis requires. Many research hours are spent solely on coding and emergent themes to ensure the mothers' stories are represented as accurately as possible. This can be quite demanding and strenuous for any

researcher using this analysis. Phenomenological analysis has limitations to credibility and reliability as well; however, the objective of the approach is not to generalize across the population but to accurately tell the story of the lived experiences. The semi-structured interview process increased the accuracy of the interviews by allowing the researcher to confirm meanings and make clarifications to reduce misinterpretation.

Implications for Future Study

Many ideas for future study have originated from this one. One of the most significant is exploring fathers' infant feeding experiences. They are perceived by the mothers as an incredible support but their role in infant feeding appears distant and remains unclear. It is also critical to seek a purposive sample of families who experience multiple barriers to breastfeeding and food security, and accessing health care supports and services. Learning about their experiences would be most beneficial when tackling the Public Health issues of low breastfeeding rates at six months postpartum.

Even though breastfeeding rates have been steadily inclining following the initiative from Health Canada and Public Health agencies, rates at six months postpartum remain to be low. Further exploration into Public Health approaches and services are warranted to examine whether they are meeting current family's needs and demands. For example, Nancy needed to access a private lactation consultant because her Public Health nurse was unable to offer any other solutions than what she already had provided. This left Nancy feeling that the nurse was illequipped to deal with exceptional breastfeeding barriers. In this case, when Public Health's expertise and resources were exhausted there was no plan on how to move forward. This placed responsibility on an already overwhelmed family to find the help they needed in the private sector.

In addition, further exploration is warranted examining the role of child care centres in supporting families with infant feeding challenges. There are several examples in the stories illustrating that knowledge translation was reciprocal between the mother and the staff whereby both mother and staff were asking each other for ideas on how to respond to the child's feeding challenges. Additional studies in this area would be beneficial to learn how to best support both staff and families.

Study Recommendations

There are several recommendations that can be extrapolated from the experiences of these breastfeeding mothers. The first is making the knowledge translation around responsive feeding a priority in early child care centres and Public Health initiatives as it appears that feeding styles, when introducing complementary foods, is not a priority or even a known concept for some, even though it is best practice. Knowledge translation can begin by introducing a responsive feeding style to families via the family physician and Public Health nurse; the publication of Public Health materials; and through modeling at the child care facility. There is evidence to suggest knowledge translation is already happening at the child care level (e.g. sign language) and suggestions around feeding styles may be warmly accepted by parents through this avenue. Two practical examples of how to do this are to identify the style they are describing in the 'Loving Care' booklets as responsive feeding and for family physicians to redirect families to the 'Loving Care' material when asked about feeding issues.

The second suggestion is to have a lunch time meal be part of the child's transition week before starting child care centre. All the mothers attended the transition week with their child prior to them commencing full-time, but this never included a lunch time meal. Families are required to fill out information regarding infant feeding and exceptionalities, but having an in-

person interaction with child care centre staff, child, and parent would be invaluable. Many of the mothers could not describe the child care centre staff's infant feeding style because they had never observed it before. A lunch time meal during the transition period also gives child care centre staff an opportunity to model the responsive feeding style that could be transferred to the home. One meal observation gives the parent an opportunity to share with the staff what they do at home. It is likely difficult to describe what infant feeding looks like at home by detailing it on an information sheet and some families may struggle detailing it in writing. An opportunity to observe a meal gives the caregiver and staff opportunities to ask further questions and get more details before the child is fully transitioned. As children spend a large part of their day eating at the childcare centre, when considering lunch and two snacks, it makes sense that a meal observation be part of a standard transition week with the family. It gives staff an opportunity to refer to the current infant feeding standards adopted by their centre as well as reinforce the 'professional' role of early childhood educators by using their training.

The last recommendation is for Public Health initiatives to better promote the involvement of partners and other family members in infant feeding, especially those attached to mothers who are exclusively breastfeeding. Currently, Public Health's examples of how to include partner and other family members in the infant feeding process is to bring baby to mother to breastfeed or by bringing mother food and drinks. If the child is being fed via bottle it is easier for them to be involved as they can measure and make formula, sterilize bottles, and feed the baby. If mother is largely feeding baby from the breast these examples of how to be supportive do not alleviate the burden of infant feeding.

Suggestions need to have more weight as we see the infant feeding burden laying largely on mothers, which sets a precedent and seems to continue for at least the first year. Women

already account for a disproportionate amount of unpaid labor in the home and exclusive and extended breastfeeding should not add to that. One mother mentioned that following their child's birth in hospital they were encouraged to watch a feeding video, which gave suggestions on how the caregiver's partner can be more involved when the mother is breastfeeding. The infant feeding video that is widely shared in Nova Scotia, as well as the 'Loving Care' material and public health nurse visits, have potential to identify shared responsibility in caregiving as positive experiences. Family dynamics are unique and established in contexts of cultural and social norms. The combination of culturally competent practice and goal planning directly with family is likely an effective way to reach this goal.

Conclusion

Infant feeding is identified by international, national, and local groups as a public health priority and children's outcomes, short- and long-term, affect everyone. Therefore, researchers, health professionals, and policy makers have a responsibility to ensure that standards and practice are evidence-based and accessible to families and structures are designed to promote success. Exclusive and extended breastfeeding, along with the introduction to complementary foods, is a daunting task for mothers. The mothers in this study creatively found ways to cope and build their skills to ultimately reach their infant feeding goals but it is evident that not all women across all social situations would be able to do so. This was a unique group of women whose infant feeding goals were supported by their significant others and when additional resources were needed, they found ways to access them.

There is an unequal disparity among children who have access to breastmilk and those who do not, as discussed above. There is room for improvement in public resources made available to families, particularly women, yearning for a positive infant feeding experience.

Early childhood centre staff have been identified as a strong influence in family's lives and there is potential for them to play more of a role in this regard. This is one of the first studies to investigate mothers' infant feeding experiences. These mothers' stories are reflective and profound and should be considered examples and inspiration for future research and recommendations pertaining to breastfeeding mothers' infant feeding experiences.

References

- Allcutt, C., & Sweeney, M. (2010). An exploration of knowledge, attitudes and advice given by health professionals to parents in Ireland about the introduction of solid foods. A pilot study. *BMC Public Health*, *10*(201), 1-8.
- Aronson, J. (1994). A pragmatic view of thematic analysis. MCC Behavioral Care, 2(1).
- Baker, M., & Milligan, K. (2008). Maternal employment, breastfeeding, and health: Evidence from maternity leave mandates. *Journal of Health Economics*, 27, 871-887.
- Benner, P. (1985). Quality of life: A phenomenological perspective on explanation, prediction, and understanding in nursing science. *Advanced Nursing Science*, 8(1), 1-14.
- Best Start Resource Centre. (2014). *Populations with lower rates of breastfeeding: A summary of findings*. Toronto, Canada.
- Black, M., & Aboud, F. (2011). Responsive feeding is embedded in a theoretical framework of responsive parenting. *American Society of Nutrition*, *141*, 490-494.
- Brocki, J., & Wearden, A. (2006). A critical evaluation of the use of interpretive phenomenological analysis (IPA) in Health Psychology. *Psychology and Health*, 21(1), 87-108.
- Brown, A., & Arnott, B. (2014). Breastfeeding duration and early parenting behaviour: The importance of an infant-led, responsive style. *Plos One*, *9*(2), 1-7.
- Brown, A., & Lee, M. (2011a). Maternal control of child feeding during the weaning period:

 Differences between mothers following a baby-led or standard weaning approach. *Maternal Child Health*, *15*, 1265-1271.
- Brown, A., & Lee., M. (2011b). A descriptive study investigating the use and nature of baby-led weaning in a UK sample of mothers'. *Maternal and Child Nutrition*, 7, 34–47.

- Brown, A., & Lee, M. (2015). Early influences on child satiety-responsiveness: The role of weaning style. *Pediatric Obesity*, 10(1), 57-66.
- Cameron, S., Taylor, R., & Heath, A. (2015). Development and pilot testing of baby-led introduction to solids: A version of baby-led weaning modified to address concerns about iron deficiency, growth faltering and choking. *BMC Pediatrics*, *15*(99).
- Canadian Public Health Association (CPHA). (2016). Early childhood: Education and care position statement. Retrieved from: http://www.cpha.ca/uploads/policy/ecec_e.pdf
- Centers for Disease Control and Prevention (CDC). (2015). Breastfeeding: Diseases and conditions. Retrieved from: http://www.cdc.gov/breastfeeding/disease/
- Chudasama, R., Patel, I., & Kavishwar, A. (2008). Factors associated with duration of exclusive breastfeeding. *The Internet Journal of Pediatrics and Neonatology* 9(1), 1-6.
- Cichero, J. (2016). Introducing solid foods using baby-led weaning vs. spoon-feeding: A focus on oral development, nutrient intake and quality of research to bring balance to the debate.

 Nutrition Bulletin, 41(1), 71-77.
- Claibourne, D., McInnes, R., Tappin, D., Wallis, A., & Oprescu, F. (2007). Infant feeding attitudes and knowledge among socioeconomically disadvantaged women in Glasgow. *Journal of Maternal Child Health (12)*, 313-322.
- Clancy, M. (2013). Is reflexivity the key to minimising problems of interpretation in phenomenological research? *Nurse Researcher*, 20(6), 12-16.
- Conroy, S. (2003). A pathway for interpretive phenomenology. *International Journal of Qualitative Methods*, 2(3), 36-62.
- Daniels, L., Mallan, K, Battistutta, D., Nicholson, J., Perry, R., & Magarey, A. (2012).

 Evaluation of an intervention to promote protective infant feeding practices to prevent

- childhood obesity: Outcomes of the NOURISH RCT at 14 months of age and 6 months post the first of two intervention modules. *International Journal of Obesity*, *36*(10), 1292-1298.
- Daniels, L. et al. (2015). Baby-led introduction to solids (BLISS): A randomised controlled trial of a baby-led approach to complementary feeding. *BMC Pediatrics*, *15*(1), 179.
- Dietitians of Canada. (2016). Introducing solid food to your baby. Retrieved from:

 https://www.eatrightontario.ca/en/Articles/Breastfeeding-Infant-feeding/Introducing-solid-food-to-your-baby.aspx
- DiSantis, K., Collins, B., Fisher, J., & Davey, A. (2011a). Do infants fed directly from the breast have improved appetite regulation and slower growth during early childhood compared with infants fed from a bottle? *The International Journal of Behavioral Nutrition and Physical Activity*, 8, 89.
- DiSantis, K., Hodges, E., Johnson, S., & Fisher, J. (2011b). The role of responsive feeding in overweight during infancy and toddlerhood: A systematic review. *International Journal of Obesity*, 35(4), 480-492.
- Duncan, J., & Bartle, C. (2014). Normalising the breast: Early childhood services battling the bottle and the breast. *Contemporary Issues in Early Childhood*, 15(1), 18-28.
- Farrow, C., & Blissett, J. (2014). Maternal mind-mindedness during infancy, general parenting sensitivity and observed child feeding behavior: A longitudinal study. *Attachment & Human Development*, 16(3), 230-241.
- Ferrao, V. (2010). Paid work. *Women in Canada: A Gender-Based Statistical Report.* Statistics Canada, Catalogue no. 89-503-X.
- Frank, L. (2015). The breastfeeding paradox, food, culture & society. *International Journal of Multidisciplinary Research*, 18(1), 107-129.

- Gionet, L. (2013). Breastfeeding trends in Canada. *Statistics Canada*. Retrieved from: http://www.statcan.gc.ca/pub/82-624-x/2013001/article/11879-eng.pdf
- Haider, S., Chang, L., Bolton, T., Gold, J., & Olson, B. (2014). An evaluation of the effects of a breastfeeding support program on health outcomes. *Health Services Research*, 49(6), 2017-2034.
- Hamilton, A., Richards, T., & Lam, C. (2016). Business plan for the Halifax baby room.

 *Management and Entrepreneurship in Nutrition Related Practice Course. Mount Saint Vincent University.
- Harbron, J., Booley, S., Najaar, B., & Day, C. (2013). Responsive feeding: Establishing healthy eating behaviour early on in life. *South Africa Journal of Clinical Nutrition*. 26(3), 1-10.
- Health Canada. (2015). Nutrition for healthy term infants: Recommendations from birth to six months. Retrieved from:
 - http://www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/recom/index-eng.php
- Horta, B., Bahl, R., Martines, J., & Victora, C. (2007). Evidence on the long-term effects of breastfeeding: Systematic reviews and meta-analyses. WHO. Retrieved from: http://apps.who.int/iris/bitstream/10665/43623/1/9789241595230_eng.pdf
- HRM Breastfeeding Community of Practice. (2016). Breastfeeding support helping tree.

 Retrieved from:
 - http://www.breastfeedingcop.com/uploads/1/1/5/7/11571685/breastfeedingcop-helpingtree [sept 2015].pdf
- Hughes, S., Patrick, H., Power, T., Fisher, J., Anderson, C., & Nicklas, T. (2007). The impact of child care providers' feeding on children's food consumption. *Journal of Developmental & Behavioral Pediatrics*, 28(2), 1-8.

- Kelly, E., Rossiter, M., & Mann, L. (2015). Assessment of impact: The standards for food and nutrition in regulated child care settings in Nova Scotia. Report of the Nutrition Standards in Child Care Project (NSCCP), Mount Saint Vincent University.
- Kirk, S., Hemmens, E., Price, S., & Sim, M. (2011). Implementation of the Nova Scotia provincial breastfeeding policy: Evaluation report. *Applied Research Collaborations for Health*. Dalhousie University.
- Kuo, D., Houtrow, A., Arango, P., Kuhlthau, K., Simmons, J., & Neff, J. (2012). Family-centered care: Current applications and future directions in pediatric health care. *Maternal and Child Health Journal*, *16*(2), 297-305.
- Li, R., Fein, S., & Grummer-Stawn L. (2010). Do infants fed from bottles lack self-regulation of milk intake compared with directly breastfed infants? *Pediatrics*, *125*(6), 1386-1393.
- Liberal. (2016). More flexibility for parents. Retrieved from: https://www.liberal.ca/realchange/more-flexibility-for-parents/
- Locke, A. (2014). Agency, 'good motherhood' and 'a load of mush': Constructions of baby-led weaning in the press. *Women's Studies International Forum, 53*, 139.
- Meins, E., Fernyhough, C., Fradley, E., & Tuckey, M. (2001). Rethinking maternal sensitivity:

 Mothers' comments on infants' mental processes predict security of attachment at 12

 months. *Journal of Child Psychology and Psychiatry*, 42, 637-648.
- Morrow, M., & Barraclough, S. (1993). Breastfeeding and public policy in Australia: Limitation of a nutritional focus. *Health Promotion International* 8(2): 135-146.
- Nielsen, A., Michaelsen, K., & Holm, L. (2014). Beyond an assumed mother-child symbiosis in nutritional guidelines: The everyday reasoning behind complementary feeding decisions. *Child Care in Practice*, 20(3), 329-346.

- Parent Health Education Resource Working Group (PHERWG). (2015). *Loving Care*. Halifax: Nova Scotia Department of Health and Wellness.
- Pietkiewicz, I., & Smith, J. (2012). A practical guide to using interpretive phenomenological analysis in qualitative research psychology. *Czasopismo Psychologiczne*, 18(2), 361-369.
- Pilkauskas, N. (2014). Breastfeeding initiation and duration in coresident grandparent, mother and infant households. *Maternal Child Health Journal*, 18, 1955-1963.
- Province of Nova Scotia. (2011). Standards for Food and Nutrition in Regulated Child Care

 Settings. Retrieved from:

 https://www.ednet.ns.ca/earlyyears/documents/providers/Standards FNSLCC.pdf
- Province of Nova Scotia. (2013). Healthy communities: Healthy eating breastfeeding.

 Retrieved from: http://novascotia.ca/dhw/healthy-communities/healthy-eating-breastfeeding.asp
- Public Health Agency of Canada (PHAC). (2016). Social determinants of health. Retrieved from: http://cbpp-pcpe.phac-aspc.gc.ca/public-health-topics/social-determinants-of-health/
- Rossiter, M., Colapinto, C., Khan, M., McIsaac, J., Williams, P., Kirk, S., & Veugelers, P. (2015). Breast, formula and combination feeding in relation to childhood obesity in Nova Scotia, Canada. *Maternal and Child Health Journal*, *19*(9), 2048-2056.
- Sim, M., Price, S., & Kirk, S. (2013). Breastfeeding in rural Atlantic Canada: The case of Tatamagouche, Nova Scotia. Poster session presented at the 19th Qualitative Health Research Conference at the University of Alberta International Institute for Qualitative Methodology.
- Sinha, M. (2014). Child care in Canada. Spotlight on Canadians: Results from the general social survey. Statistics Canada. Catalogue no. 89-652-X No. 005.

- Sleddens, E., Kremers, S., Stafleu, A., Dagnelie, P., De Vries, N., & Thijs. C. (2014). Food parenting practices and child dietary behavior. Prospective relations and the moderating role of general parenting. *Appetite*, 79, 42-50.
- Spencer, R. (2008). Research methodologies to investigate the experience of breastfeeding: A discussion paper, *International Journal of Nursing Studies*, 45, 1823-1830.
- Spencer, R., Greatrex-White, S., & Fraser, D. (2014). 'I thought it would keep them all quiet'.

 Women's experiences of breastfeeding as illusions of compliance: An interpretive phenomenological study. *Journal of Advanced Nursing*, 71(5), 1076-1086.
- Statistics Canada. (2015). Chart 2 Characteristics of mothers by breastfeeding duration, Canada, 2011–2012. *Canadian Health Survey*. Retrieved from: http://www.statcan.gc.ca/pub/82-624-x/2013001/article/11879/c-g/c-g-02-eng.htm
- Thomson, G., Ebisch-Burton, K., & Flacking, R. (2014). Shame if you do shame if you don't: Women's experiences of infant feeding. *Maternal and Child Nutrition*, 11, 33-46.
- UNICEF. (2009). Responsive Feeding. Retrieved from: http://www.unicef.org/nutrition/training/5.3.1/3.html
- WHO. (2003). Global Strategy for Infant and Youth Child Feeding.

 Retrieved from: http://apps.who.int/iris/bitstream/10665/42590/1/9241562218.pdf
- WHO. (2016). Complementary feeding. *Nutrition*. Retrieved from: http://www.who.int/nutrition/topics/complementary_feeding/en/
- WHO & UNICEF. (2009). Baby-friendly hospital initiative: Revised, updated and expanded for integrated care. Retrieved from:
 http://apps.who.int/iris/bitstream/10665/43593/2/9789241594974_eng.pdf

- Wiersma, W., & Jurs, S. (2009). *Research methods in education: An introduction*. Boston, MA: Pearson Education, Inc.
- Wright, C., Cameron, K., Tsiaka, M., & Parkinson, K. (2011). Is baby-led weaning feasible? When do babies first reach out for and eat finger foods? *Maternal and Child Nutrition*, 7, 27–33.
- Yan, J., Liu, L., Zhu, Y., Huang, G., & Wang, P. (2014). The association between breastfeeding and childhood obesity: A meta-analysis. *BMC Public Health*, *14*(1267).

Appendices

Appendix A

World Health Organization - Division of Child Health and Development

Ten Steps to Successful Breastfeeding

Every facility providing maternity services and care for newborn infants should:

- 1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
- 2. Train all health care staff in skills necessary to implement this policy.
- 3. Inform all pregnant women about the benefits and management of breastfeeding.
- 4. Help mothers initiate breastfeeding within half an hour of birth.
- 5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
- 6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
- Practice rooming-in that is, allow mothers and infants to remain together 24 hours a day.
- 8. Encourage breastfeeding on demand.
- Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
- 10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Appendix B

Recruitment Flyer



Version 5:2016-12-08

ARE YOU THE MOTHER OF AN INFANT ATTENDING A CHILD CARE CENTRE?



I would love to hear about your infant feeding experience! I am a student in the Master of Arts (Child and Youth Study) program at Mount Saint Vincent University and I am interested in speaking with mothers of children aged 6 to 18 months old attending a child care centre who have at least attempted breastfeeding. The purpose of the study is to better understand infant feeding experiences.

Interviews are at a place and time of your choosing, one on one, and last approximately 60 minutes. All information shared is private.

If interested please contact infantfeedinghfx@gmail.com or ###-###.

infantfeedinghfx @gmail.com 	infantfeedinghfx @gmail.com							
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Appendix C

Interview Questions with Prompts

- 1. Can you tell me about your experience feeding your baby?
 - a. Positive experiences? Negative experiences? Can you elaborate? Tell me more.
- 2. What is your experience and understanding of feeding styles?
 - a. What feeding style do you use?
 - b. How is this style the same or different from others?
 - c. How does it work/not work for you?
- 3. In your experience, what is the relationship between infant feeding methods and feeding styles?
 - a. Are your methods the same/different from the feeding style(s)?
 - b. Can you tell me more about this?
 - c. Why do you think it is this way?
- 4. Tell me about your experience with infant feeding at your child's child care centre.
 - a. Positive experiences? Negative experiences? Can you elaborate? Tell me more.
- 5. Describe your experience with infant feeding at home since your infant started child care?
 - a. Positive experiences? Negative experiences? Can you elaborate? Tell me more.
- 6. Is there anything else you would like to share with me about your experience?



Appendix D

To the participants in this study,

Thank you for your interest in participating in the present study. Please read the following details about the study and your involvement. If you agree to the terms, please sign the informed consent.

The purpose of this study is to learn about mothers' experiences with infant feeding in child care centres settings in Halifax, Nova Scotia. What contributes to your understanding of infant feeding in child care centres and the relationship between infant feeding in child care centres and at home will be explored. The participants in this study will be selected based on the following eligibility criteria: be 19 years of age or older, be the mother of an infant aged 6 to 18 months, have breastfed for any period of time postpartum, live within the Halifax Regional Municipality, and have your infant enrolled in a child care centre.

This study will be carried out in Halifax, Nova Scotia under the supervision of Professors Linda Mann and Misty Rossiter, Department of Applied Human Nutrition, at Mount Saint Vincent University. The data is being collected for the purposes of a MA thesis and perhaps for subsequent research articles.

With your permission, a face-to-face interview will be conducted by the researcher for about one to one and a half-hours. During the interview you will be asked brief questions about your background information and then more general questions about your experiences with infant feeding at home and in child care centre settings. Throughout the interview I may ask questions to clarify your answers but my part will be mainly to listen to you speak about your views, experiences, and the reasons you believe the things you do. During the interview, I may write brief notes that will be used to assist me in asking subsequent questions.

Each interview will be audio taped and later copied to paper. You will be offered a copy of the audio recording that the researcher can burn to a CD for you following the interview. You will be assigned a number that will correspond to your interviews and transcriptions. Your transcriptions will be sent to you to read in order for you to add any further information or to correct any misinterpretations that could result. The information obtained in the interview will be kept in strict confidence and stored at a secure location. All information will be reported in such a way that individual persons and child care centres cannot be identified. All raw data (i.e. transcripts, field notes) will be destroyed five years after the completion of the study. During this time period the data may be used as supplementary data for future studies.

There are no monetary incentives to participating in the study. However, a list of local resources will be provided to you at the end of the interview. Your participation in this

study will contribute to the knowledge about feeding infants who also attend a child care centre and the findings may contribute to the development of future supports for families and centres alike.

You may at any time refuse to answer a question, withdraw from the interview process, or withdraw from study itself. You may request that any information, whether in written form or audiotape, be removed from the study. At no time will value judgments be placed on your responses nor will any evaluation be made about your effectiveness as a parent. Finally, you are free to ask any questions about the research and your involvement with it and may request a summary of the findings of the study.

If you have any questions, please feel free to contact me at ###-#### or at ami-lynn.goulden@msvu.ca. You may also contact my supervisors Linda Mann at ###-##### and Dr. Misty Rossiter at ###-####. Finally, you may also contact the MSVU Research Ethics Coordinator, Brenda Gagné, for questions about your rights as a research participant at brenda.gagne@msvu.ca and (902) 457-6350.

Thank you in advance for your participation.

Email: ami-lynn.goulden@msvu.ca

Linda Mann MBA PDt Associate Professor Applied Human Nutrition Mount Saint Vincent University Telephone: ###-#### Email: linda.mann@msvu.ca

Dr. Misty Rossiter PhD PDt Adjunct Professor Applied Human Nutrition Mount Saint Vincent University Telephone: ###-##### Email: mdrossiter@msvu.ca

By signing below, you are indicating that you are willing to participate in the study, you have received a copy of this letter, and you are fully aware of the conditions above.

Name:	
Signed:	
Date:	
	nitial if you would like a summary of the findings of the study upor
comple.	tion:
Please k	eep a copy of this form for your records.

Appendix E



Consent for Audio Recording

Participant Name (please print)	
Research Study Title	
Researcher	

As a participant in this research study, I agree to be audio recorded for the purpose of learning about my experience with infant feeding in early child care centres. I am aware that I am able to withdraw this consent at any time without penalty or consequence, at which time the recordings will be completely erased and destroyed.

I understand that the recordings will be kept confidential and that no information about me, including these recordings, will be given to anyone.

I consent to excerpts of these recordings, or descriptions of them, being used by the researcher for the purpose of research or the presentation of research. I understand that the researcher will edit out from these recordings, or from descriptions of the recordings, any information that may identify me.

I understand that I will be given the opportunity to provide or withdraw my permission for the use of the recordings for purposes other than the current MA thesis project and supplementary data for future research studies.

I understand that if I have any comments or concerns resulting from my participation in this study that I can contact the Research Ethics Coordinator, Office of Research Ethics, at 902-457-6350 or research@msvu.ca.

Signatures

Participant	
Date	
Researcher	
Date	