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**Six Months Exclusive Breastfeeding: A Relational Behaviour Influenced by  
Actual and Virtual Social Networks**

A thesis presented in fulfilment of the requirements for the degree

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## Abstract

Despite widespread consensus regarding the health benefits of six months exclusive breastfeeding for mothers and infants, the prevalence of six months exclusive breastfeeding is very low in developed countries including New Zealand. This research contributes to the literature nationally and internationally through documenting influencing factors among New Zealand women and their family that relate to the practise of six months exclusive breastfeeding.

This research is a qualitative study involving face to face postpartum interviews with 30 mothers who prior to the birth of their infants were characterised as highly motivated to breastfeed exclusively for six months. The research participants were recruited from the lower North Island of New Zealand. Initial data were collected using a short questionnaire administered before the birth to record demographic information and to establish an antenatal intention to breastfeed exclusively. An initial postpartum face to face interview was conducted at around six weeks. Each participant was then followed via short monthly audio-recorded telephone interviews until giving up exclusive breastfeeding or until six months after the birth. Social constructionism was used as the epistemological framework underpinning the research. A range of social theories, linked to the central theory of social constructionism, were used to highlight the importance of social relationships, social interactions and social support. The theory of “*planned behaviour*” proposed by Icek Ajzen (1991), the theory of stress, coping strategies and social support proposed by Thoits (1995), theories of “*governmentality*” and “*biopower*” developed by Michel Foucault (1972), arguments about the “*strength of weak ties*” proposed by Mark Granovetter (1973) and theories related to “*landscapes of care*” suggested by Milligan and Wiles (2010), were used in this thesis to illuminate the findings that resulted from the thematic analysis of the qualitative data. The research was reviewed and approved by the Massey University Human Ethics Committee.

The central finding of this research is that six months exclusive breastfeeding practice is not limited to the intentions or actions of the mother-infant dyad; it is socially constructed by actual and virtual social networks around the mother as well as the other relational influences such as historical, geographic, socioeconomic and social contexts of the mother’s life. Additional findings of this research related to the quality of breastfeeding support through social media such as Facebook, Skype and smartphone apps, makes a significant contribution to the New Zealand and international literature in this area.

## **Acknowledgements**

Completing a PhD is probably the most challenging activity of my life. The best and worst moments of my doctoral journey have been shared with many people. It has been a great privilege to spend several years in the School of Public Health at Massey University, and its members will always remain dear to me.

I wish to express my appreciation to the women who have contributed to this thesis and supported me, took the time needed to fill in my questionnaire and participated in face to face interview sessions as well as answering the telephone interview calls, their ideas, experiences and comments have been invaluable in helping me complete this amazing journey.

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I would like to dedicate this work to my late father and sister, who left us too soon. I hope that this work makes them proud.

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## **BREASTFEEDING<sup>1</sup>**

**B**est for baby

**R**educes incidence of allergies

**E**conomical- no waste

**A**ntibodies-greater immunity to infections

**S**tool inoffensive-never constipated

**T**emperature always correct and constant

**F**resh milk- never goes sour in the breast

**E**motionally bonding

**E**asy once established

**D**igested easily within two to three hours

**I**mmEDIATELY available

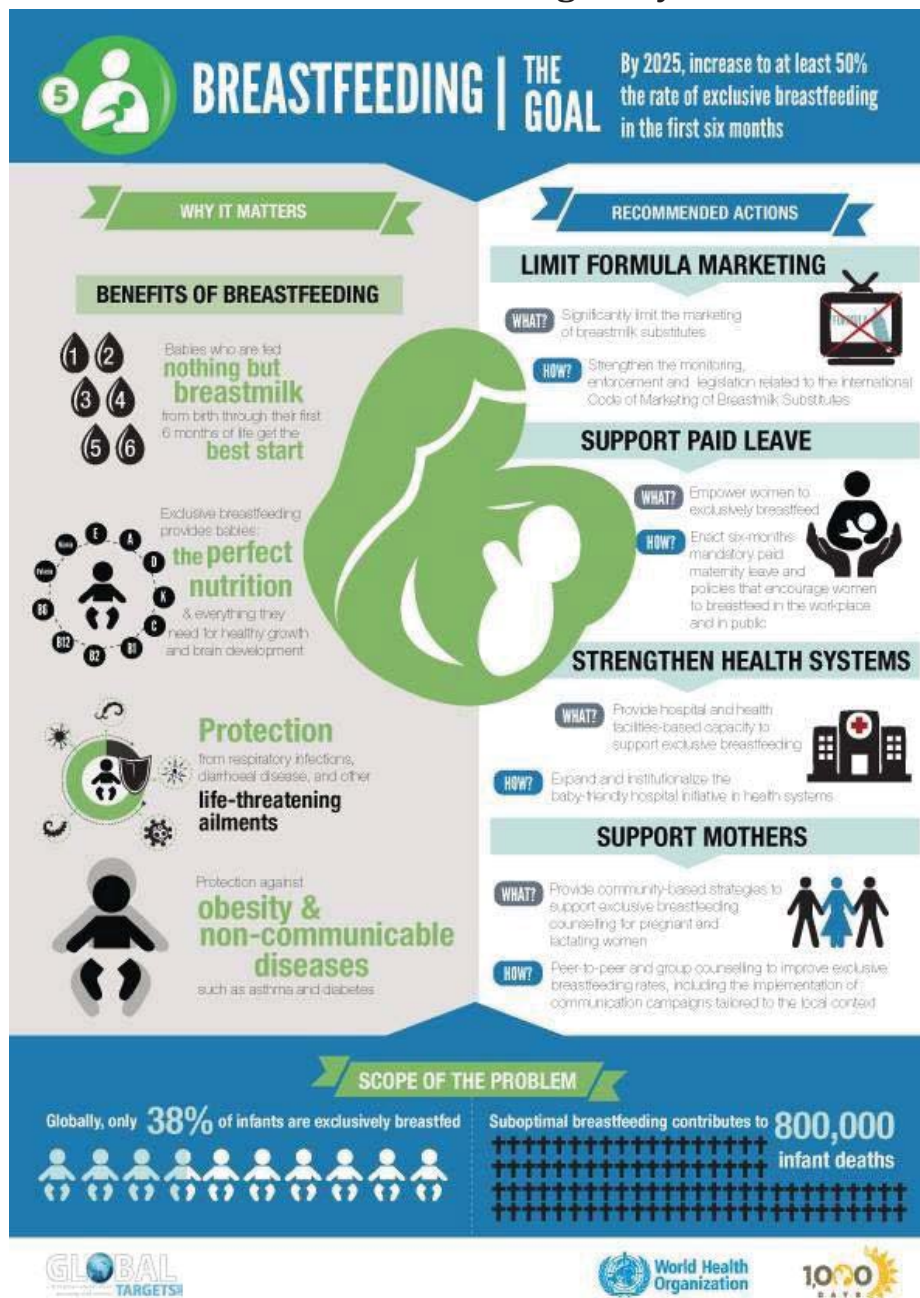
**N**utritionally balanced

**G**astroenteritis greatly reduced

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<sup>1</sup> The Mother and Child Health and Education Trust (2013). Ten Steps to Successful Breastfeeding. Baby-Friendly Hospital Initiative. <http://www.tensteps.org/breastfeeding.shtml>. Accessed 11/01/2017.

## The WHO Global Health goal by 2025<sup>2</sup>



<sup>2</sup> The World Health Organisation. Nutrition. Global Targets 2025. To improve maternal, infant and young child nutrition. [http://www.who.int/nutrition/global-target-2025/infographic\\_breastfeeding.pdf?ua=1](http://www.who.int/nutrition/global-target-2025/infographic_breastfeeding.pdf?ua=1). Accessed 11/01/2017.

## **Glossary of Key Terms**

### **Antenatal**

The definition of antenatal or prenatal is the period before the baby is born or before the birth. An example of an antenatal period is the third trimester of a human pregnancy.

### **Artificial Feeding**

The baby has received alternative liquid like formula instead of breast milk with or without solid food in the last 48 hours (World Health Organization, 2003).

### **Breastfeeding**

When a mother breastfeeds her baby, she feeds her baby with milk directly from her breasts rather than with artificial or cow's milk from a bottle.

### **Breastfeeding Exclusively**

The baby has received only breast milk, no water, no formula and no other liquid or solid food (World Health Organization, 2003). In exclusive breastfeeding, the only nourishment the infant receives is mother's breast milk, which is either suckled by the baby or expressed. In addition, the infant is given Vitamin D and any other prescribed medication the infant might need. According to the WHO definition, exclusive breastfeeding does not include giving water to the infant. In some reports, giving small amounts of water to the baby in addition to breastfeeding is included in the definition of exclusive breastfeeding.

### **Breastfeeding Support**

All types of supports related to breastfeeding-friendly actions both in general and at the individual level. Support includes dissemination of information, psychological support and practical support.

### **Caesarean Section**

A surgical operation for delivering a child by cutting through the wall of the mother's abdomen.

### **Formal Social Support**

Support from registered health professionals for people under their care.

### **Fully Breastfeeding**

The baby has received only breast milk in the last 48 hours (World Health Organization, 2003).



## **Healthcare Professionals**

Or registered health professionals are people who are skilled workers in primary health care and maternity hospitals, including nurses, midwives, public health nurses and physicians who attend to pregnant mothers or young infants and their families.

## **Informal Social Support**

Support from non-health professional sources such as peer support, social media and family support.

## **Lactation Consultant**

A registered health professional who has undergone breastfeeding education and counselling training based on the Baby Friendly Hospital Initiative (BFHI).

## **Lead Maternity Carer (LMC) Midwife**

New Zealand has a unique maternity system, in which women choose a Lead Maternity Carer (LMC) who can be a midwife, general practitioner (GP) or obstetrician during the childbearing period. LMC midwives are funded by the New Zealand Ministry of Health and provide free maternity care for women who are booked with them from the beginning of pregnancy until six weeks postpartum.

## **Māori**

Māori are the indigenous Polynesian people of New Zealand who arrived in New Zealand in several waves of canoe voyages at some time between 1250 and 1300 AD.<sup>3</sup>

## **Midwife**

Midwife means “with women”. Midwifery care is the provision of knowledge, advice, care and support to women and their families during pregnancy, labour, birth and up to six weeks following birth. Midwives are registered health professionals whose expertise is providing care to women and their babies during pregnancy, labour and birth and the first six weeks after birth (Midwifery Council, 2016).

## **Multipara**

A woman that has had more than one pregnancy resulting in viable offspring.

## **Multiple Pregnancy**

The existence of more than one baby that is carried to viability in a single pregnancy.

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<sup>3</sup> Retrieved from: Oxford University Press. Oxford Reference. Maori arrival and settlement. <http://www.oxfordreference.com/view/10.1093/acref/9780191823497.001.0001/acref-9780191823497-e-110>. Accessed 11/01/2017.

### **Partial Breastfeeding**

The baby has received breast milk and formula or other solid food (World Health Organization, 2003).

### **Peer Social Support**

Peer support is a form of interaction based on equality, solidarity, being heard and understood, personal contact and mutual support by persons who have undergone similar life experiences and stages of life. Those taking part in peer support are equals, and they usually both give and receive support. In this context, peer supporter refers to a person giving breastfeeding support, who does not have to be a healthcare professional. The peer supporter can be the mother's spouse, own mother, relative, friend or another breastfeeding mother.

### **Plunket Nurse<sup>4</sup>**

Plunket is a New Zealand not-for-profit organisation, that is community owned and governed. Plunket nurses practice in the community and they are well child care providers for infants and children under five years. During the home visits they provide full physical assessments of infants, as well as advice about child development, infant feeding and early parenting. Plunket Nurses also provide advice and information related to safe sleeping, immunisation and safety.

### **Primipara**

A first time mother, a woman who has given birth for the first time.

### **Postpartum**

The postpartum period (or postnatal period) is the period beginning immediately after the birth of a child and extending for about six weeks.

### **Postpartum Depression**

Postpartum depression is moderate to severe depression in a woman after she has given birth. It may occur soon after the birth or up to a year later. Most of the time, it occurs within the first three months after the birth.

### **Social Support**

Social support refers to an intentional interactive relationship involving emotional, informational, practical and concrete support as well as support related to decision-making.

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<sup>4</sup> Retrieved from: <https://www.plunket.org.nz/>, Accessed date: 20/01/2017.

### **Sudden Unexpected Death in Infancy (SUDI)**

Is a sudden and unexplained death of an infant (a baby less than one year of age). Diagnosis requires that it remain unexplained even after an autopsy or a detailed death scene investigation. SUDI typically happens during sleep between 12 midnight and 9 am.

### **Teenage Pregnancy**

Pregnancy in women under 20 years of age.

### **The Baby Friendly Hospital Initiative (BFHI)**

An initiative published by WHO and UNICEF in 1991, aimed at improving the implementation of breastfeeding worldwide. The core of the initiative consists of the “Ten Steps to Successful Breastfeeding” [see Table 8.1.], a practical guide aimed to promote and support breastfeeding in maternity wards at hospitals, and in recent years in primary health care and paediatric care as well.

### **Vaginal Birth**

A vaginal birth is the birth of offspring in mammals through the vagina. It is the natural method of birth.

### **Weaning**

The process of gradually introducing an infant to what will be its adult diet and withdrawing the supply of its mother's breast milk.

### **Well Child/Tamariki Ora<sup>5</sup>**

It is a free service for all New Zealand children from birth to five years that is funded by the New Zealand Ministry of Health and provided through contracting agencies. The well-child providers support parents to protect child health and well-being, so children can grow and develop to their full potential.

### **Whanau**

Extended family according to Māori and tribal opinion, but it is more complex than an extended family. The meaning of Whanau includes emotional, physical and spiritual dimensions and it can be multi-layered and dynamic.<sup>6</sup>

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<sup>5</sup> The Well Child Tamariki Ora Programme. Health education and promotion, health protection and clinical assessment, and family/Whanau support. <http://www.wellchild.org.nz/>. Accessed 11/01/2017.

<sup>6</sup> Te Ara. The encyclopaedia of New Zealand. Story: Whanau- Maori and family. Page 1. Contemporary understandings of Whanau. <http://www.teara.govt.nz/en/whanau-maori-and-family/page-1>. Accessed 11/01/2017.

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## ***Chapter 1: Introduction***

### **Background**

The health benefits of breastfeeding particularly six months exclusive breastfeeding for mothers, infants and the world economy are well established (WHO, 2016b). However, increasing the rates and duration of exclusive breastfeeding is a major global health challenge. According to the World Health Organization (WHO), around 11 million under five-year-olds die every year, with most of these deaths happening in the first year of life. Sixty percent of infant deaths are directly or indirectly associated with malnutrition, and two-thirds are due to improper feeding methods (WHO, 2003). The United Nations Children's Fund (UNICEF) and WHO in 2003 created "the Global Strategy for Infant and Young Child Feeding" to draw attention to the importance of infant feeding practices which have an impact on the nutritional status, health and development of children. The strategy identifies that a lack of breastfeeding, especially breastfeeding exclusively for the first six months of life, is a significant risk factor for childhood morbidity and mortality (WHO, 2003). A recent study on the long-term health benefits of breastfeeding (Binns, Lee, & Low, 2016), identifies that significant health advantages for both mother and baby can be achieved with the initiation and prolonged duration of exclusive breastfeeding. These health benefits include improved cognitive development in breastfed babies, a lower risk of obesity in both mother and baby,

reducing the risk of getting both Type I and Type II diabetes, hypertension, cardiovascular disease, hyperlipidemia and some types of cancer. Despite widespread consensus regarding the health benefits of breastfeeding, the prevalence of exclusive breastfeeding is very low worldwide. It is estimated that globally only 38% of babies around the world are breastfed exclusively for six months, and this low rate of exclusive breastfeeding has not changed in about 20 years (WHO, 2016b). Research has shown that an increased breastfeeding rate can avert 800,000 deaths and provide savings of 300 billion U.S. dollars each year across the world (WHO, 2016b). Consequently, increasing the rate of exclusive breastfeeding at six months from the current rate of 38% to at least 50% by 2025 has become a global health target (WHO & UNICEF, 2014).

In developed countries, including New Zealand, the rates of exclusive breastfeeding at six months postpartum declines rapidly after three months. At the same time health professionals, especially midwives and lactation consultants are actively involved in promoting and supporting six months exclusive breastfeeding (Callen & Pinelli, 2004). For example, the prevalence of six months exclusive breastfeeding in the USA and the UK are 19% and 1%, respectively (WHO, 2016a). In New Zealand in 2014, more than eight out of ten infants were exclusively breastfed at discharge from hospital, 42% at three months and at six months only 16% were breastfed exclusively. This number is lower than the global average of 38% (WHO, 2016b) and far below the World Health Organisation's target for a 50% six months exclusive breastfeeding rate (WHO, 2014a).

Many factors impact upon intention, initiation and duration of breastfeeding such as socioeconomic factors, social support from family and health professionals as well as

employment status, cultural beliefs and maternal education levels (Meedya et al. 2010). Internationally little published qualitative literature exists focusing on why exclusive breastfeeding rates decline between three and six months. Literature relating to duration of exclusive breastfeeding tends to focus on barriers to breastfeeding initiation (Dennis, 2002; Sheehan, Krueger, Watt, Sword, & Bridle, 2001) or on factors that contribute to early weaning (Ladomenou, Kafatos, & Galanakis, 2007; Wijndaele, Lakshman, Landsbaugh, Ong, & Ogilvie, 2009). An extensive quantitative New Zealand study linked tertiary education and exclusive breastfeeding at one month to longer breastfeeding duration (Heath, Tuttle, Simons, Cleghorn, & Parnell, 2002). This qualitative doctoral thesis seeks to identify factors that positively and negatively impact on exclusive breastfeeding rates in New Zealand. In addition, this research contributes to the literature both nationally and internationally through documenting factors among some New Zealand women and their families that relate to the decline in exclusive breastfeeding rates between three and six months.

### **The importance of six months exclusive breastfeeding for New Zealand**

The Global Health Observatory data (WHO, 2015b), report that the Western Pacific region and high-income countries including New Zealand have the lowest rate of six months exclusive breastfeeding compared to other regions and income groups in the world (see Tables 1 and 2).

**Table 1.1.** Exclusive breastfeeding under six months, data by WHO regions (2007-2014)

WHO Region	Infants exclusively breastfed for the first six months of life (%)
Africa	36
Eastern Mediterranean	40
Western Pacific	29
Global	36

**Table 1.2.** Exclusive breastfeeding under six months, data by World Bank income groups (2007-2014)

World Bank income group	Infants exclusively breastfed for the first six months of life (%)
Low income	47
Low middle income	33
Upper middle income	29
Global	36

Breastfeeding plays an important role as a life saver for children under five years of age in developing countries (WHO, 2000). In developed nations such as New Zealand, breastfeeding protects children against gastrointestinal diseases and respiratory infection, and this protective impact of breastfeeding can be enhanced with prolonged duration of exclusive breastfeeding in these countries (Ip et al., 2007). Additional benefits of prolonged exclusive breastfeeding in developed countries include reducing the risk of necrotizing enterocolitis<sup>7</sup> in preterm infants (a baby who is birthed before 37 weeks of pregnancy and is very vulnerable), as well as reducing the risk of sudden infant death syndrome (SIDS) in healthy

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<sup>7</sup> **Necrotizing enterocolitis** is a serious disease that happens when the intestinal tissue become damaged and begins to die. It most often affects premature infants. Common symptoms include bloating in the abdomen, bloody stools and diarrhoea. Retrieved from: Healthline, Reference Library. <http://www.healthline.com/health/necrotizing-enterocolitis> . Accessed date: 20/01/2017.

term babies (Ip et al., 2007). New Zealand statistics (Ministry of Health, 2015), have shown that in 2012, 36 deaths or 0.6 per 1000 live births were recorded as Sudden Unexpected Death in Infancy (SUDI). The rates of SUDI were higher between 2008 and 2012, but among very low birth weight infants (1000g-1499g), infants of mothers younger than 20 years and preterm newborns (32-36 weeks' gestation). In comparison with the data from 2007 and 2011 which indicates the SUDI rate was 1.0 per 1000 live births, in 2012, statistics have shown 40% decrease of SUDI in New Zealand (Ministry of Health, 2015). This 40% decrease in SUDI in New Zealand can be attributed to the SIDS and Kids Safe Sleeping national public health campaign that since 2012 has supported breastfeeding as a specific risk reduction factor for SUDI (SIDS and Kids New Zealand, 2014).

Exclusive breastfeeding for six months can prevent obesity in childhood and adulthood (Huh, Rifas-Shiman, Taveras, Oken, & Gillman, 2011; Ip et al., 2007; Ross, 2011; Turck, 2005; Wallby, Lagerberg, & Magnusson, 2017). For example, early weaning from the breast or introduction of solids before four months, particularly in the infants who never breastfed, is related to a six-fold rise in the risk of obesity in their preschool years (Huh et al., 2011). Consequently, breastfeeding in infancy improves adulthood quality of life as people who were breastfed as children are less likely to be obese (Bernier, Plu-Bureau, Bossard, Ayzac, & Thalabard, 2000; Ip et al., 2007; WHO, 2015a). It is notable that in New Zealand, 11% of children aged 14 or younger are obese (Howe et al., 2015), the data for Maori and Pacific Islanders are even worse, at 19% and 27%, respectively (Howe et al., 2015). Thus child obesity is a major challenge for the New Zealand public health system due to the prevalence of short and long-term health impacts such as cardiovascular diseases, diabetes and cancers that are related to childhood obesity (Lal, Moodie, Ashton, Siahpash, & Swinburn, 2012). In

addition, there is robust evidence that adult obesity is rooted in early life events that may occur even before the birth (Howe et al., 2015). Childhood weight may be influenced by the obesity and diet of the mother as well as the early introduction of solids in infancy, formula feeding, gaining weight during infancy and a shorter period of being breastfed as a child (Howe et al., 2015; Wallby, Lagerberg, & Magnusson, 2017). In addition, research on New Zealand obesity and the overweight population (Lal, Moodie, Ashton, Siahpush, & Swinburn, 2012), shows that obesity is the leading cause of morbidity and premature mortality in New Zealand, with the health care costs of obesity in New Zealand being one of the highest health care costs in the world.

Moreover, there are many health benefits of breastfeeding for mothers (Bernier et al., 2000; Ip et al., 2007; WHO, 2015a), including a lower risk of non-communicable diseases, particularly breast cancer (Chowdhury et al., 2015). Breast cancer is the most common cancer in women worldwide; it is the second highest cause of cancer death in women after lung cancer (*Cancer Facts and Figures*, 2016). New Zealand data has shown that around 3000 women are diagnosed with breast cancer and more than 600 women die from breast cancer every year (New Zealand Breast Cancer Foundation, 2013). The risk of developing breast cancer and the mortality rate are respectively 33% and 65% higher for Maori women compared to non-Maori women (New Zealand Breast Cancer Foundation, 2013). The health benefits of breastfeeding for mothers are cumulative across pregnancies, with longer duration decreasing the risk of breast cancer (Victora et al., 2016). Reduced duration of breastfeeding is one of the known risk factors for triple negative (Lording, 2011) and basal-like breast cancers (Kwan et al., 2015; Millikan et al., 2008), which are very aggressive with poor clinical outcomes (Alluri & Newman, 2014). The protective effect of breastfeeding on breast



cancer has been explained by the associated cellular differentiation of the mammary cells, delayed or lack of ovulation, and excretion of carcinogens from the breast tissue through breastfeeding (Franca-Botelho, Ferreira, Franca, Franca, & Honorio-Franca, 2012). According to recent research on the epidemiology, mechanisms and lifelong effects of breastfeeding (Victora et al., 2016), it is estimated that with the current rate of breastfeeding worldwide, about 20,000 breast cancer deaths are prevented compared to if no women breastfed. An additional 20,000 deaths caused by breast cancer would be prevented annually if the duration of breastfeeding increases to one year per infant amongst women in high-income countries or to two years per child in developing countries. Furthermore, Victora et al. (2016) have identified that every 12-month breastfeeding duration decreases the lifetime risk of developing invasive breast cancer in breastfeeding mothers significantly. Similarly, in a recent study (Löf-Johanson, Brudin, Sundquist, & Rudebeck, 2016) a history of pregnancy and breastfeeding duration for more than six months are associated with a lower rate of recurrence of breast cancer and the overall survival outcome.

Overall, obesity, breast cancer and SUDI are major challenges for public health in New Zealand. Exclusive breastfeeding for six months and then continuing breastfeeding with complementary food until two years are important factors for controlling obesity in the breastfed baby during his or her childhood and in their adult lives. Breastfeeding is also a preventive factor for breast cancer. Therefore, through promoting six months exclusive breastfeeding the New Zealand health system may reduce rates of obesity, breast cancer and SUDI to a certain extent.

## **The impetus for this research**

My interest in conducting this doctoral research came from my personal experience as an Iranian registered midwife. I have trained and practised as a midwife in Iran (Persia) since 1998. This doctorate is also grounded in my experience as a mother who breastfed her son exclusively more than four months (in 1996) and continued to do so partially for two years.

Iranians have a favourable attitude toward breastfeeding and the rate of breastfeeding in Iran compared to many countries is very high. For instance, in 2009, 90% and 57% of children in Iran were breastfed at 12 and 24 months respectively (Olang, Farivar, Heidarzadeh, Strandvik, & Yngve, 2009). In addition, the rate of exclusive breastfeeding was 56% and 27% at four and six months in urban areas as well as 58% and 29% in rural areas (Olang et al., 2009). Despite the breastfeeding culture of my home country, I have witnessed many new mothers who struggle with breastfeeding challenges and need extensive social support from their health care providers, their significant others and the government through the funding of breastfeeding assistance programmes. I have seen many mothers who need information and education related to the health benefits of breastfeeding as well as emotional support and encouragement to practise breastfeeding successfully.

Reviewing the literature related to six months exclusive breastfeeding in developed countries raised a question for me as to why the prevalence of this behaviour is very low in Western countries compared to the data from poor and middle-income countries. The World Health Organisation has developed one universal set of breastfeeding guidelines, however large differences in breastfeeding rates by country suggests that the historical, socioeconomic, political, geographic and sociocultural contexts of breastfeeding in these

countries may need to be taken into account. Therefore, I decided to explore the factors that may influence six months exclusive breastfeeding behaviour in one developed or Western country.

I chose New Zealand for doing a PhD in midwifery, because when I was a student midwife I read a lot about the midwifery system and the Midwifery-led maternity model of care in New Zealand. Studying in New Zealand was my dream that came true. I also chose to carry out this qualitative research in New Zealand because the statistics show that there is a need for research in this area in order to promote the rate of six months exclusive breastfeeding. To become familiar with New Zealand midwifery practice as well as to have a better understanding of New Zealand women as a midwife or researcher during the process of this research I worked at Palmerston North hospital<sup>8</sup> for a short period of time as an honorary midwife. I also attended breastfeeding support sessions with a lactation consultant at Community Birth Services, Palmerston North, every Tuesday afternoon for one year from 2013-2014. In April 2015, I was registered<sup>9</sup> as an international qualified midwife by the New Zealand Midwifery Council.

## **Objectives and methodology**

Consideration of the mother-infant dyad as the main target for promoting six months exclusive breastfeeding has failed to address the low rate of this behaviour in developed countries including New Zealand. Therefore, infant feeding behaviour is not limited to the mother-infant dyad; sociocultural contexts of this behaviour need to be taken into account. It

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<sup>8</sup> The Hospital' letter is in the appendices, Appendix 3.

<sup>9</sup> The certificate is in the appendices, Appendix 16.

was this realisation that led to the development of the research question and aims for the doctoral study.

### **Research question**

How does antenatal breastfeeding intention as well as social support from health professionals, family members and social media influence breastfeeding initiation and exclusive duration in the first six months of life in New Zealand infants?

### **Study aims**

The study aims to explore how antenatal breastfeeding intention, health professional and informal social support influence breastfeeding initiation and exclusive duration in the first six months of life in New Zealand infants. An additional aim of this doctoral research is to develop a greater understanding of why exclusive breastfeeding tails off so dramatically between three and six months after birth in New Zealand.

### **Methodology and method**

The main aim of the research is to highlight the importance of socio-cultural contexts on infant feeding behaviour and to consider the limitations of approaches that treat the mother-infant dyad as the main target for the promotion of exclusive breastfeeding. Within qualitative social science research, social constructionism is a broad epistemological framework that enables the researcher to understand an individual's behaviour through their social relationships, interactions and contexts (Chell, 2000; Kahlkeh, 2014; Merriam, 2009). Therefore, a generic qualitative methodology was employed in this thesis and social constructionism was selected as the epistemological framework underpinning the research.

Chapter three of this thesis discusses the methodology, the theoretical framework underpinning the research, the method and process as well as all the efforts the researcher made to address the challenges that were faced during the research journey.

This research is a qualitative study involving face-to-face interviews with 30 women. The research was carried out between September 2013 and July 2014. The research participants were recruited from the lower North Island of New Zealand. Initial data were collected via a short questionnaire administered before the birth to record demographic information and to establish antenatal intention to breastfeed exclusively. The face-to-face interviews were conducted 4-6 weeks after the birth; lasting up to an hour in length. The interview focused upon factors that facilitated or impeded the establishment and maintenance of exclusive breastfeeding. The research participants selected the time and venue for the interview, with all of the interviews taking place at the participants' home. Only the interviewer and the interviewee were present during the meeting. The interviews were recorded digitally and transcribed verbatim. No field notes were recorded. Interviews were conducted in English which was the first language of most participants. Each participant was followed via short monthly audio-recorded telephone interviews until giving up exclusive breastfeeding or until six months after the birth. There was another face to face interview for women who gave up breastfeeding exclusively earlier than six months to discuss what circumstances led them to decide to stop breastfeeding exclusively before their intended duration. Participant involvement in the research terminated following the first postpartum face-to-face interview if the participant chose not to breastfeed exclusively.

In order to gain an in-depth understanding of the research material, thematic analysis of the interview transcripts was completed using manual coding techniques. Interview material was analysed using Aronson's four stage thematic analysis methods (Aronson, 1995). The work of two or more theorists is drawn upon in each of the substantive chapters of the thesis in order to illustrate themes and work in this field through extracts from conversations with women who are committed to exclusive breastfeeding.

### **Thesis of the thesis statement**

The thesis of this doctoral thesis is that six months exclusive breastfeeding practice is not limited to the intentions or actions of the mother-infant dyad; it is socially constructed by actual and virtual social networks around the mother as well as the other relational influences such as the historical, geographic, socioeconomic and social contexts of the mother's life.

### **Key findings and theoretical framings**

According to demographic data<sup>10</sup> extracted from antenatal questionnaires and the interview transcripts, the research participants in this doctoral study have shared socio-demographic characteristics and were all pro-breastfeeding. All women participated in the current research voluntarily and contacted the researcher through the advertisements<sup>11</sup> placed in public places. No information related to the inclusion or exclusion criteria was provided on these research advertisements and only one potential participant was excluded from the research after unexpectedly giving birth to twins. Therefore, a relatively homogeneous sample of 30 women participated in this qualitative research. The participants were mature

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<sup>10</sup> The demographic details of research participants is in the appendices, Appendix 17.

<sup>11</sup> The research advertisements are in the appendices, Appendix 4&5.

and older than 25 years. The vast majority of women in this research were highly educated, married, full-time employees and on maternity leave for more than six months. Most participants had breastfeeding experience, a planned pregnancy and an antenatal intention to breastfeed exclusively as well as a midwife as their lead maternity caregiver. They birthed at home or in a baby friendly hospital, were breastfed as a child and received social support from their significant others as well as through social media. Furthermore, the majority of participants in this research were born in New Zealand and were of European descent, three women identified as Maori and four women were migrants from England, China, Pakistan and Iran. As the participants were highly motivated to breastfeed, their narratives are a valuable addition to the literature on promoting exclusive breastfeeding duration in New Zealand, particularly between the three and six months period.

The first substantive chapter of the thesis, chapter four, identifies that having an antenatal intention to breastfeed exclusively is an important predictor of the initiation and duration of breastfeeding. However, having an antenatal intention does not accurately predict exclusive breastfeeding at six months as there are many factors that influence this health-related behaviour. Following thematic analysis of the qualitative data and the identification of the related themes, the theory of planned behaviour (Ajzen, 1991), was applied to illuminate how intention influences action. The theory of planned behaviour is extended in this chapter to demonstrate how self-identity also plays a significant role in the prediction of a prolonged duration of exclusive breastfeeding. The two components of the theory of planned behaviour including subjective norms and self-identity emphasise how decision making around six months exclusive breastfeeding is created through social relationships and social interaction. Therefore, the key finding of chapter four is that maternal behavioural beliefs, subjective

norms, perceived behavioural control and self-identity are socially constructed through social relationships, social interactions and social networking and influence the prolonged duration of intentional exclusive breastfeeding.

The fifth chapter explores reasons for stopping exclusive breastfeeding between three and six months. There is scant literature nationally and internationally about this important timeframe when the maintenance of exclusive breastfeeding may be challenging for mothers. Therefore, a decision was made to describe the key themes from the interviews. The findings show that despite all of the indicators that participants had for successfully completing six months exclusive breastfeeding, including extensive social support, some of them introduced solid foods earlier than six months. Participants attributed the early introduction of solids to the fact that maintaining breastfeeding for six months is difficult and that every baby is different. Most studies have linked barriers to six months exclusive breastfeeding to difficulties within the mother-infant dyad, as well as the negative maternal socioeconomic and sociodemographic characteristics. Therefore, one of the strengths of the findings in this chapter is that the maintenance of six months exclusive breastfeeding behaviour is challenging and demanding even for these mothers who were socially advantaged, well-educated and highly motivated to breastfeed their babies exclusively for six months.

Chapter six and chapter seven of this thesis focus on breastfeeding support from nuclear and extended family members. After thematic analysis of the data the theory of stress, coping strategies and social support proposed by Thoits (1995), was applied to interpret the findings of these two chapters related to the importance of social support from family members. There are many stressors during the postpartum period for a mother such as fatigue, emotional



tension, the experience of traumatic birth and lactation issues including breast pain. However, social support may promote maternal self-efficacy which is an important coping strategy for sustaining six months exclusive breastfeeding. The findings of chapter six also identify that the support and encouragement from significant others are important for maintaining exclusive breastfeeding over time. The research participants are highly motivated breastfeeding mothers. However, they stated that they still needed support from their significant others. They acknowledged the importance of a breastfeeding culture in their family alongside emotional and skill support from family members. Most research participants appreciated their own mother's breastfeeding experience and some of them spoke about their childhood memories related to their mothers' breastfeeding practice. Participants also mentioned that their mothers were their positive role models in their infant feeding practice.

Chapter seven of this thesis continues with themes related to stress and coping through identifying that new mothers who participated in this research experienced breastfeeding support from their male family members including their male partners as well as the infant's grandfathers and uncles. There are some men in New Zealand who have a favourable attitude to breastfeeding and support the women to breastfeed their children not only in their family environment but also in public. In addition, most participants identified that their male partners do not have enough knowledge about breastfeeding, but they are eager to learn in order to support their breastfeeding partners or other family members.

In chapter eight, most participants talked about the pressure to breastfeed within the New Zealand health system. Consequently, resistance to breastfeeding as a result of feeling

pressured, guilt and judgements around formula feeding as well as surveillance or monitoring of the parents by health professionals who are employed by the government are the key results of chapter eight. Therefore, after thematic analysis of the data and identification of emerging themes, Michel Foucault's<sup>12</sup> (1972) theories of governmentality and bio-power were applied as a framework for interpreting the findings of resistance to breastfeeding. The services of self-employed registered midwives are funded by the New Zealand government and are therefore part of the New Zealand health system. Mothers in this current research appreciated the effective support from the LMC midwives who empowered them to look after their infants appropriately as well as strengthened the new mothers' self-efficacy, respect and autonomy.

Chapter nine explores breastfeeding support through social media. Facebook, in particular, is identified as an efficient source of peer support for the women who participated in this study. Therefore, after thematic analysis of the data, ideas about the "strength of weak ties" proposed by Granovetter (1973) were applied to illuminate the findings related to the online social networks. Linkages between Facebook members in virtual support groups suggest that weak ties act like bridges that diffuse information related to breastfeeding and provide an effective kind of social support by creating a sense of community. Another important finding relates to support through social media for participants who immigrated to New Zealand or had family members who were geographically distant. These participants

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<sup>12</sup> Michel Foucault (1926-1984), was a French philosopher, historian, social theorist and one of the influential thinkers whose work has affected the development of social constructionism. Foucault's theories addressed the relationship between knowledge and power and the ways that modern states use disciplinary power for social control through social institutions. Retrieved from: [http://www.philanthropyandphilosophy.com/profile\\_michel\\_foucault.php](http://www.philanthropyandphilosophy.com/profile_michel_foucault.php) . Accessed date 17/01/2017.

spoke about the emotional support or “caring about” from their significant others via Skype. Therefore, after thematic analysis of the data, theories related to “landscapes of care” (Milligan & Wiles, 2010) were applied to interpret the findings related to the quality of breastfeeding support through social media sites such as Skype and Facebook. It is identified in chapter nine that in the digital age the traditional definition of proximity as physical closeness can equally refer to emotional closeness as it is possible for someone who is geographically distant to still provide support which is emotionally very close and effective. In addition, although most participants were from the “Generation Y”, a group who use the Internet frequently for seeking online information, none of their health care providers referred them to the parenting websites and reliable online health information.

Chapter ten provides a summary of the thesis in which it is argued that six months exclusive breastfeeding should not be seen solely as a mother-infant dyad behaviour, but also as a relational behaviour which is influenced by the actual and virtual social networks in which the mother, family members and health professionals are engaged. Granovetter’s (1985) ideas about “embeddedness” as well as the relational model of decision-making in midwifery care developed by Noseworthy, Phibbs and Benn (2013), are applied to understand how a breastfeeding mother is an “embedded” individual in which her intentions and behaviours around exclusive breastfeeding for six months are shaped by the influences of, or expectations within, her social networks. A diagrammatic summary was developed to illustrate how six months exclusive breastfeeding is socially constructed by actual and virtual social networks around the mother as well as the other relational influences such as the historical, geographic, socioeconomic and social contexts of the mother’s life.

## **The structure of the thesis**

### **Chapter 1**

In the first chapter, the background to this research as well as the importance of six months exclusive breastfeeding for public health in New Zealand is outlined. The rationale for doing this research in New Zealand, the objectives, the methodology, the epistemological underpinning of this qualitative research, the method, key findings and the structure of this thesis are presented.

### **Chapter 2**

In the second chapter, the New Zealand and international research associated with the importance of exclusive breastfeeding as well as the New Zealand literature related to the influence of health professional and informal social support on breastfeeding initiation and exclusive duration are reviewed. In addition, the international literature on the effect of antenatal intention to breastfeeding, support from family members as well as breastfeeding support from health professionals and support through social media are explored. An overall summary is presented at the end of each section, including how this thesis makes an original contribution to the literature in each of the areas discussed.

### **Chapter 3**

This chapter provides an overview of the methodology and describes the research methods. Information about the aims and objectives of the study as well as the recruitment of the research participants and methods of data collection and data analysis are provided in

this chapter. Furthermore, the process of gaining ethics approval as well as the theoretical framing to support and interpret the research findings are outlined.

#### **Chapter 4**

In chapter four the influence of antenatal intention on six months exclusive breastfeeding behaviour is discussed. The theory of planned behaviour is applied as a framework to support the findings. The chapter reviews the relevant literature and uses extracts from participant interviews to explore emerging themes related to the theory of planned behaviour. This theory is extended to include self-identity as a useful variable that enhances understanding of intention and performance of six months exclusive breastfeeding practice.

#### **Chapter 5**

This chapter considers reasons for stopping breastfeeding exclusively and starting solids or formula for babies between three and six months. The chapter reviews international and national literature related to the reasons for giving up exclusive breastfeeding or starting solids earlier than six months. It considers why promoting six months exclusive breastfeeding should be a priority for the government. The six months exclusive breastfeeding recommendations as a general health policy and returning to work as an influential factor on exclusive breastfeeding duration are considered. The emerging themes are discussed using examples from the interviews.

#### **Chapter 6 and chapter 7**

Chapter six and chapter seven focus on the importance of social support from family members. The theory of stress, coping strategies and social support proposed by Thoits (1995), is applied to interpret the findings related to family support in these two chapters.

The importance of social support for improving physical and mental health and the importance of support from significant others, similar others and similar significant others as well as different types of social support are discussed in the sixth chapter. Chapter six is about the importance of family culture for breastfeeding. The chapter explores support from grandmothers and other female family members such as sisters and female in-laws. The emerging themes in this chapter are discussed using examples from the participants' narratives and an overall conclusion outlined.

Chapter seven continues with themes related to stress and coping through exploring the importance of support from male family members for exclusive breastfeeding initiation and duration. The transition to fatherhood, the importance of breastfeeding education for fathers and cultural views that discourage men to support breastfeeding are considered. Findings related to the breastfeeding support from male family members are discussed using extracts from the interviews to illustrate.

## **Chapter 8**

This chapter considers the importance of health professional support for successful exclusive breastfeeding practice. The chapter reviews the literature related to health professional support for initiation and duration of exclusive breastfeeding. Michel Foucault's theories of governmentality and bio-power are applied to interpret themes related to mothers' resistance to breastfeeding as a result of feeling pressured within the New Zealand health system. The emerging themes, as well as discussion related to health professional support using examples from the participants' narratives, are explored.

## **Chapter 9**

This chapter considers the kinds of breastfeeding support that participants accessed from the Internet including health-focused websites, online forums, smartphone apps and social network platforms. The chapter describes the importance of social media and the Internet for “Generation Y” mothers and the importance of Skype and Facebook for promoting breastfeeding in the digital age. Ideas relating to the “strength of weak ties” and “landscapes of care” are applied to illuminate the findings of this chapter related to breastfeeding support through social media. The emerging themes and discussion associated with breastfeeding support through social media as well as the extracts from the participants’ narratives are outlined.

## **Chapter 10**

Chapter ten presents the thesis conclusions, the research limitations, implications for practice, and suggestions for future research. In addition, the concluding chapter offers a summary of the thesis as well as the strengths of the current research. Chapter ten also identifies six months exclusive breastfeeding as a relational health behaviour which is socially constructed and influenced by actual and virtual social networks in which the mother, family members and health professionals are embedded.

## ***Chapter 2: Literature Review***

### **Introduction**

In the previous chapter, the importance of six months exclusive breastfeeding for public health and an overview of the research study was provided. This chapter reviews the New Zealand and international literature related to the importance of six months exclusive breastfeeding, as well as the influence of antenatal intention, and formal and informal social support on six months exclusive breastfeeding practice. The literature related to reasons for stopping exclusive breastfeeding between three and six months is reviewed. Data bases searched through the Massey University Library website for this literature review included Web of Science, PubMed, Cochrane Library and Newztext Plus (Newspaper database that includes Index New Zealand) as well as Google Scholar. Key words used include breastfeeding intention, exclusive breastfeeding duration, breastfeeding support and breastfeeding support through social media.

### **The importance of six months exclusive breastfeeding**

Breast milk is an ideal source of nutrition for the development of infants as it contains many health benefits for both mother and baby (Ip et al., 2007). According to the fact sheet Number 342 of WHO 2014 about infant feeding that was updated in January 2016 (WHO, 2014b) every child has the right to optimal nutrition based on the Rights of the Child.

The American Academy of Paediatrics (AAP) recommends breastfeeding as breast milk is “*species-specific*” and all alternative nutrition methods differ substantially from it making



human breast milk incomparable for infant nutrition (Gartner et al., 2005, p. 496). Breastfeeding also provides essential nutritional substances that are necessary for the first six months of life. It has anti-inflammatory and immunological qualities that protect infants against common childhood infections and diseases (Lawrence & Lawrence, 2010) as well as long chain polyunsaturated fatty acids that are necessary for the development of the nervous system (Innis, 2003).

In 2007, researchers reviewed 400 individual pieces of research related to the influence of breastfeeding on short and long-term neonatal and maternal health outcomes in developed countries and they concluded that breastfeeding reduced the neonatal risk of acute otitis media, non-specific gastroenteritis, severe lower respiratory tract infections, atopic dermatitis, asthma, obesity, diabetes types 1 and 2, childhood leukemia, sudden infant death syndrome and necrotizing enterocolitis (Ip et al., 2007).

For maternal outcomes, a history of breastfeeding was related to a reduction in the risk of ovarian and breast cancers (Ip et al., 2007). Several studies, for example, including the Collaborative Group on Hormonal Factors in Breast Cancer (2002) stated that the incidence of breast cancer was higher among women who had never breastfed (Bernier, Plu-Bureau, Bossard, Ayzac, & Thalabard, 2000; Ip et al., 2007). Similarly, the rate of ovarian cancer in mothers who had never breastfed was found to be 27% higher than for those who had breastfed even for a short period (Ip et al., 2007). Research also has shown early weaning and never breastfeeding is related to an increased risk of maternal postpartum depression (Ip et al., 2007). In a study of 209 women in the USA using the Edinburgh Postnatal Depression Scale a score of 13 or higher which is indicative of probable postpartum depression,

significant risk factors for postpartum depression were associated with not breastfeeding, a history of depression and cigarette smoking (McCoy, Beal, Shipman, Payton, & Watson, 2006).

As mentioned earlier, breast milk contains antibodies which protect children against common childhood diseases. For example, pneumonia and diarrhoea are the two primary fatal diseases for children around the world that can be prevented through six months exclusive breastfeeding (Bachrach, Schwarz, & Bachrach, 2003; Ip et al., 2007). Apart from the health benefits of breastfeeding, there are many other advantages of breastfeeding such as it is ready to use, it is convenient and cheaper than formula (McIntyre, Hiller, & Turnbull, 2001; Thompson, 2005). Furthermore, not only does breast milk provide immediate health benefits for the baby, but it also improves their adulthood quality of life as people who were breastfed as children are less likely to be obese or get diabetes type II, and they also perform better in intelligence tests (Bernier et al., 2000; Ip et al., 2007; WHO, 2015). Breastfeeding is the most important factor for the physical health of the mother and baby and contributes to the social and emotional well-being of the whole family (World Health Organization, 2003). Consequently, WHO (2003) recommends a hierarchy for infant feeding: 1. Breastfeeding by the mother of the baby, 2. Feeding with the expressed breast milk from the mother of baby, 3. Feeding with breast milk from another woman (donor milk), 4. Feeding with powdered infant formula (least favoured).

In comparison with formula feeding, breastfeeding has many advantages. Formula fed infants, compared to breastfeeding children, are more likely to be admitted to primary health care institutions or hospitals for nutrition-related health problems which can contribute to

additional costs to the health system of a country (Cattaneo & Quintero-Romero, 2006). More specifically, the Breastfeeding Trends and Updated National Health Report identified that there was a significant relationship between lower risk of early-life diseases and breastfeeding. For instance, the incidence of acute otitis media among infants who were fully formula fed was 100% more than for those who were exclusively breastfed for the first six months of life (Ip et al., 2007). Furthermore, the rate of lower respiratory tract infections in the first year of life was 250% higher for infants who were formula fed in comparison with infants who were exclusively breastfed (Bachrach et al., 2003). It is important to note that the lack of breastfeeding particularly exclusive breastfeeding has a life-long effect on infants and children such as impaired social and cognitive development or poor school performance (WHO, 2003).

According to WHO (2003), exclusive breastfeeding should be maintained for the first six months for every child. “Exclusive breastfeeding” has the following characteristics: 1. the baby has received only breast milk, no water, no formula and no other liquid or solids, 2. allows the infant to receive drops and syrups (vitamins, minerals, and medicines). The WHO recommends that all babies who are breastfed exclusively for the first six months of their life should be breastfed with appropriate complementary food after six months and into their second year and beyond (WHO, 2003). Solid food can be introduced in the form of mashed fruits and vegetables after six months as they will provide a perfect complement to breast milk (Gartner et al., 2005; WHO, 2015).

Besides the health benefits of prolonged exclusive breastfeeding for mother and baby, there are many economic advantages of exclusive breastfeeding for six months as well. According to the WHO (2016), the rate of any breastfeeding is very low worldwide, for

example, less than one in five babies are breastfed during the first year of their lives in developed countries, and only two in three infants receive any breast milk between six months and two years in developing countries. As a result of this low rate of breastfeeding around the world, the global economy lost more than 300 billion US dollars in 2012 (WHO, 2016). If the rate of six months of exclusive breastfeeding duration increases to at least 90% in countries such as the US, China and Brazil and 45% in the UK, these countries would save \$2.45 billion, \$223.6 million, \$6 million, \$29.5 million respectively in their healthcare systems due to the cutting treatment costs of common childhood diseases such as diarrhoea, asthma and pneumonia, that can be prevented easily by exclusive breastfeeding. Therefore, lower rates of optimal breastfeeding have an adverse impact on the economy of both high and low-income countries in the world (WHO, 2016). The health and economic benefits of breastfeeding have become particularly salient for developed countries as the middle classes experience downward social mobility and poverty rates increase (Piketty, 1995; Standing, 2011). As it has been mentioned earlier, since breastfeeding improves child development, increases IQ and the performance of children at school, and this then increases the chance of having a high earning job in adulthood. Therefore, the benefits of breastfeeding will improve the economic gains for every family as well as the impact on the national economy (WHO, 2014b).

Although six months exclusive breastfeeding is the optimal method of infant feeding that is recommended by WHO and other health organisations (Ministry of Health, 2009; Paediatrics, 2005; WHO, 2015) the rate of six months exclusive breastfeeding is very low globally (Ahlqvist-Bjorkroth et al., 2016), as the introduction of solids or liquids before six months is a common practice regardless of the country's economic status (Becker,

Remington, & Remington, 2011). For example, the rate of exclusive breastfeeding is around 38% globally, and this low rate of exclusive breastfeeding has not changed in about 20 years (WHO, 2016). Therefore, increasing the rate of six months exclusive breastfeeding to at least 50% by 2025 has become the global health target (WHO, 2016). Even though the full six months duration of exclusive breastfeeding is the preferable recommendation, “any breastfeeding is valuable”<sup>13</sup> should be considered as well. For example, research shows health professionals should still encourage mothers to breastfeed their babies for six months exclusively. However, partial breastfeeding is also valuable containing many health advantages for both mother and baby compared to no breastfeeding (Agostoni et al., 2009; Inoue & Binns, 2014).

## **Breastfeeding in New Zealand**

In 1991, New Zealand was a signatory to the Baby-Friendly Hospital Initiative (BFHI) convention which was launched (WHO & UNICEF, 2009) after the International Innocenti Declaration of 1990 on the Promotion, Protection and Support of Breastfeeding in Florence, Italy (Declaration, 1990). In New Zealand, the New Zealand Breastfeeding Alliance (NZBA) is contracted by the Ministry of Health to promote, protect and support breastfeeding (Ministry of Health, 2016; NZBA, 2016). The NZBA as a national authority is responsible for the implementation of BFHI and Baby Friendly Community Initiative (BFCI) and

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<sup>13</sup> Any breastfeeding includes Exclusive Breastfeeding (no other liquid or solid and just breastfeeding), Almost Exclusive Breastfeeding (breast milk only, but occasional tastes of traditional foods or other liquids), Full Breastfeeding (almost exclusive and exclusive breastfeeding), and Partial Breastfeeding (or Mixed Feeding: the infant receives breastfeeding plus breast milk, non-human milk, other liquids and solid foods) (Labbok, 2000).

provides support in the form of training, research, accreditation services and essential breastfeeding knowledge for both health professionals and maternity services to implement best practice related to breastfeeding (NZBA, 2016). In 2000, following financing the NZBA to develop the BFHI accreditation program, the number of baby-friendly maternity facilities in New Zealand increased dramatically from zero in 2000 to almost 96% in 2011 (NZBA, 2016). At the same time, the rate of exclusive breastfeeding at discharge increased sharply from around 55% in 2000 to approximately 85% in 2011 (Martis & Stufkens, 2013). In 2014, 96% of the hospitals were baby friendly in New Zealand which means their staff are trained to have the up to date knowledge of breastfeeding as well as how to support mothers to breastfeed their newborns successfully. Previously health care professionals in hospitals often gave babies formula particularly before the implementation of the baby friendly hospitals in New Zealand. However, today in very rare cases, and just for medical reasons, the hospital staff may supplement breast milk with formula.

It is important to note that in New Zealand, another reason for the successful increase of exclusive breastfeeding rates at discharge is the significant breastfeeding support from health professionals such as New Zealand registered midwives who work in the community. For instance, most New Zealand women have a midwife as their Lead Maternity Carer (LMC). In the majority of cases, the midwife visits the mother from early pregnancy until six weeks postpartum. It is also highly likely that the baby will be placed skin to skin and breastfed immediately after birth with the midwife providing breastfeeding support until six weeks postpartum.

New Zealand data have shown that the rate of six months exclusive breastfeeding is still very low and the maintenance of exclusive breastfeeding between three and six months is a major challenge for the New Zealand maternity system. For example, in 2014, 42% of infants in New Zealand were breastfed exclusively at three months, but only 16% of them breastfed exclusively at six months (WHO, 2014a).

Many influencing factors can positively or negatively impact on the intention, initiation and maintenance of six months exclusive breastfeeding such as significant others, health professionals, community and culture (Dodgson, Duckett, Garwick, & Graham, 2002). New Zealand is a bicultural country due to the signing of the Treaty of Waitangi between Maori and the British Crown. New Zealand also is a multicultural nation due to high levels of immigration from around the world (New Zealand in Profile, 2015). Different cultures have their own traditions, beliefs and values which influence their infant feeding practices. Therefore, understanding the sociocultural influences that support or impede exclusive breastfeeding for six months in New Zealand is also required to address the low rate of exclusive breastfeeding at six months. For example, according to an analysis of 2004-2009 breastfeeding data of babies examined by Plunket<sup>14</sup> (Plunket, 2010), there are large differences in breastfeeding rates by ethnic groups and regions in New Zealand. Exclusive breastfeeding patterns for 2-5 weeks, 6-9 weeks, 10-15 weeks and 16 weeks to 7 months amongst four categories of Maori, Pacific, Asian and other (other ethnic groups) were examined. It was found that Pacifica mothers had the lowest rate of exclusive breastfeeding,

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<sup>14</sup> In New Zealand, Plunket nurses are well child providers and practise in the community providing home-visits to the mothers and children under 5 years in order to offer advice and support (Plunket, 2016).

followed by Maori and Asian. Regionally the lowest rate of exclusive breastfeeding through all age groups was in Counties Manukau<sup>15</sup>, while Northland<sup>16</sup> had the highest rate of exclusive breastfeeding (Figure 2.1.). A limitation of the study identified by the authors was that as Plunket does not provide support to all infants in New Zealand data from approximately 10% of newborns was missing (Plunket, 2010). Similarly, the findings of a study (Abel, Park, Tipene-Leach, Finau, & Lennan, 2001), based on 150 participants from Maori, Pakeha (European), Samoan, Cook Islands, Niuean and Tongan ethnic groups, residing in Auckland, New Zealand showed similarities across all ethnic groups in the realized importance of breastfeeding, and in the provision of support and advice during pregnancy and postpartum. However, there were some differences between ethnic groups based on the source of support. Amongst all of the Maori and Pacific groups, family support was important including support from the husband/male partner during the pregnancy as well as support from the maternal grandmother and other female family members after the birth in the provision of infant care.

In contrast, support from a health professional was the most important source of support for the few Maori and New Zealand-raised Pacifica participants who did not have a strong family network available. The sources of support for Pakeha mothers were different to those

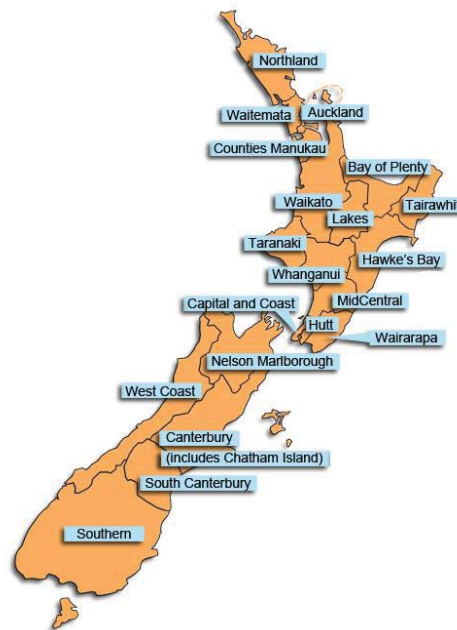
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<sup>15</sup> Counties Manukau has a much higher proportion of Pacific Island people, a younger population and proportionally more people in the most deprived section of the population in comparison to the national average. Retrieved from: <http://www.health.govt.nz/new-zealand-health-system/my-dhb/counties-manukau-dhb/population-counties-manukau-dhb>. Accessed date: 20/01/2017

<sup>16</sup> Northland has a much higher proportion of Maori, lower proportion of Pacific and an older population significantly in comparison to the national average. In addition, Northland has a very high proportion of people in the most deprived section of the population, whilst the least deprived section is under-represented compared to the whole New Zealand average. Retrieved from: <http://www.health.govt.nz/new-zealand-health-system/my-dhb/northland-dhb/population-northland-dhb>. Accessed date: 20/01/2017



identified by Maori and Pacifica participants. Pakeha mothers under 25 years of age preferred support and advice from their friends, but older Pakeha mothers relied on their partners as their primary source of emotional support and relied on health professionals and their friends for information as well as practical advice (Abel et al., 2001).



**Figure 2.1.** Map of the New Zealand District Health Boards (DHBs)<sup>17</sup> that shows Counties Manukau and Northland regions

Breastfeeding was a generally accepted option among all ethnic groups due to the benefits of breastfeeding stated by participants such as nutritionally ideal, affordable, convenient and creates a strong emotional bond between mother and baby. The initiation of breastfeeding was not easy and was stated as very painful by some but most of the mothers established and continued breastfeeding successfully. A few mothers ceased breastfeeding early or did

<sup>17</sup> Retrieved from: Ministry of Health. My DHB. <http://www.health.govt.nz/new-zealand-health-system/my-dhb>. Accessed date: 20/01/2017.

supplementary formula feeding due to factors like sore nipples, breast engorgement along with the perception of not having sufficient milk and feeling confused by conflicting advice from family and health professionals (Abel et al., 2001).

To explore the reasons for early cessation of exclusive breastfeeding in New Zealand, a research team (Butler, Williams, Tukuitonga, & Paterson, 2004), conducted a study on 1247 Pacifica mothers and their infants in South Auckland. The influential factors for giving up exclusive breastfeeding at hospital discharge were smoking, not having a midwife during pregnancy, unemployment prior to pregnancy, the length of residency in New Zealand, caesarean delivery, twin birth as well as different hospital discharge times for mother and baby following birth. While the significant factors for stopping exclusive breastfeeding after six weeks were smoking, not receiving a visit from Plunket, returning to work, having a home visit for the baby from a traditional healer (the traditional healer may recommend herbal medicine or a certain kind of food), dummy use, high parity and mother and baby not sharing the same room (Butler et al., 2004).

A New Zealand study of 1800 infants (Ford, Schluter, & Mitchell, 1995) conducted prior to the implementation of the World Health Organisation's guidelines for six months exclusive breastfeeding (WHO, 2003) identified that 20% of infants by 12 weeks, 50% by 16 weeks and 90% of babies by six months of age had been given solids. The significant factors that were strongly related to the introduction of solids earlier than the recommended time (Before 2003, four months exclusive breastfeeding was recommended practice by WHO) were maternal smoking, not breastfeeding exclusively until four weeks of age and maternal low educational level. Prior to the recommendation of six months exclusive breastfeeding by

WHO (2003) it was identified that 50% of babies in New Zealand had been given solid foods earlier than four to six months of age (Ford et al., 1995). According to the results of the New Zealand health survey in 2006/7, after the WHO recommendation of six-month exclusive breastfeeding was adopted, 16% of children (Ministry of Health, 2008) had been given solids before four months of age and also in 2011/12, 10% of children had solids introduced before four months of age (Ministry of Health, 2012a). Since 2003, the New Zealand Ministry of Health recommends exclusive breastfeeding until six months after birth, and that solid food should be given to children at around the same age (Ministry of Health, 2008).

In a qualitative study involving twenty New Zealand women that focused upon the influential factors on breastfeeding experience, reported that breastfeeding was an intimate and “dynamic interpersonal process” (Dignam, 2001). Key concepts which impacted upon women’s experiences of breastfeeding were: the degree of comfort associated with breastfeeding, ownership of the breast, as well as seeing breastfeeding as a form of mutual gifting between the mother and child. Dignam’s research suggested that identification of psychosocial attitudes towards breastfeeding in individual women may promote successful breastfeeding initiation and duration (Dignam, 2001). Similarly, McBride-Henry (2004) carried out a qualitative study interviewing 19 New Zealand women who were breastfeeding their babies or had breastfeeding experiences. The main themes that emerged were that breastfeeding is a unique embodied experience that is silenced within the public domain and subject to “the pervasive influence of society”. McBride-Henry’s study suggested that health professionals may improve women’s confidence and breastfeeding knowledge through paying attention to each woman’s experiences and stories (McBride-Henry, 2004).

Payne and James (2008) reported that returning to paid employment was the main reason for giving up breastfeeding in New Zealand. They conducted a qualitative study on 34 mothers and found that a suitable space for nursing mothers and social support were the key factors for the maintenance of breastfeeding after returning to paid employment. Furthermore, they recommended that employers along with societal attitudes should be more supportive and positive for working breastfeeding mothers.

Overall, there is a limited number of qualitative studies carried out on the effect of health professionals, family and social media support as well as antenatal intention to breastfeed exclusively for six months in New Zealand. A lack of research in this area suggests that a qualitative research study on breastfeeding intention, initiation and exclusive duration, including why the rate of exclusive breastfeeding tails off between three and six months will make a significant contribution to the literature on exclusive breastfeeding in New Zealand.

### **The influence of antenatal intention on exclusive breastfeeding**

Several studies have been carried out to examine positive factors for successful breastfeeding initiation and exclusive duration, and most of them concluded that antenatal intention to breastfeed is the most important factor (Donath & Amir, 2003; Henderson & Redshaw, 2011; Kools, Thijs, & de Vries, 2005). Having knowledge of the physical and emotional health advantages of breastfeeding for infants is the key factor influencing antenatal intention to breastfeed (Arora, McJunkin, Wehrer, & Kuhn, 2000a; Earle, 2002; Heath, Tuttle, Simons, Cleghorn, & Parnell, 2002).

In a study on the importance of antenatal intention to breastfeed, Henderson and Redshaw (2011) pointed out that among the many factors that relate to successful breastfeeding

practice, such as health professionals' support, clinical and socio-demographic factors, the most significant predictor of infant feeding method is the mothers' decision about the method of infant feeding during their pregnancy. Similarly, a study in the Netherlands found that 98% of mothers who had the intention to breastfeed prior to birth, successfully initiated breastfeeding for their infants (Kools et al., 2005).

In a qualitative study, involving three communities in Canada using thematic content analysis, Bonia et al. (2013) found that embarrassment related to breastfeeding in public, as well as the convenience of formula feeding, were key influences on mothers' decisions about infant feeding. Research has shown that the intention to breastfeed during pregnancy is associated with duration of breastfeeding as well. As an example, two studies concluded that mothers who had an antenatal intention to breastfeed their babies until four months are more likely to be exclusively breastfeeding at three months (Lawson & Tulloch, 1995), and at six months (Donath & Amir, 2003). Likewise, Waldrop (2013) carried out a qualitative research project in the USA involving interviews with 19 women 48 hours after giving birth about factors which related to immediate infant feeding choices in the postpartum period. The author identified that support and education about infant feeding should be provided before birth because most mothers decide on the infant feeding method during their pregnancy.

In a more recent quantitative study on social-cognitive factors predicting exclusive breastfeeding rates among African mothers in Ethiopia (Minas & Ganga-Limando, 2016), the researchers identified that having an antenatal intention to breastfeed did not translate to prolonged duration of exclusive breastfeeding during the first six months postpartum. Consequently, they studied 233 first-time mothers during pregnancy regarding intentions/goals, self-efficacy, sociodemographic characteristics and outcome expectancies

using both structured questionnaire and semi-structured interviews for collecting the information. Although all social-cognitive factors that were measured had a positive relationship with exclusive breastfeeding performance after birth, outcome expectancy and self-efficacy were statistically significant predictors of breastfeeding exclusively. The researchers have pointed out that the promotion exclusive breastfeeding rates should consider social-cognitive factors as well as education especially for first-time mothers who do not have previous breastfeeding experience (Minas & Ganga-Limando, 2016).

To summarise, there are many studies conducted on the relationship between breastfeeding intention during pregnancy and breastfeeding practices and the majority of them have demonstrated that antenatal breastfeeding intention is an effective predictor of exclusive breastfeeding behaviours. However, having an antenatal intention to breastfeed exclusively does not guarantee the performance of this intentional behaviour until six months, and that other influencing factors should be considered. Chapter four of this study will discuss the influence of antenatal intention on the performance of six months exclusive breastfeeding, and the theory of planned behaviour will be applied to understand the influential factors affecting intentional exclusive breastfeeding practice.

### **Reasons for stopping exclusive breastfeeding after three months**

The introduction of solids at six months of age is recommended by both the WHO (WHO, 2011, 2014b, 2015, 2016) and the New Zealand National Breastfeeding Committee (Ministry of Health, 2009). Research also has shown that the best time for the introduction of solids is around six months of age (Gartner et al., 2005; Kramer & Kakuma, 2012). The maintenance of exclusive breastfeeding between three and six months is a major global health issue

particularly in most developed countries including New Zealand (Callen & Pinelli, 2004; Ministry of Health, 2012b). However, little qualitative research has been conducted to explore the factors affecting exclusive breastfeeding interruption after three months. For example, in a study on the reasons for stopping breastfeeding during the first year of infancy by (Li, Fein, Chen, & Grummer-Strawn, 2008), the researchers evaluated 1323 mothers' self-report quantitative data. The researchers identified that "the baby is not satisfied by breast milk" was the most common reason for stopping breastfeeding regardless of weaning age. However, the reason for stopping any breastfeeding after three months was "self-weaning". One-third of mothers who stopped breastfeeding after three months reported: "our babies lost interest in nursing or began to wean themselves". In another study, Callen and Pinelli (2004), reviewed the literature in several developed countries including Canada, the United States, Europe and Australia. The researchers identified that there are some differences between the breastfeeding rates among these developed countries. However, initiation and duration of any breastfeeding rates were higher in mothers who were mature, married, highly educated and from a higher social class. Similarly, a positive relationship between marital status and exclusive breastfeeding duration was found in research on intentional exclusive breastfeeding duration (Perrine, Scanlon, Li, Odom, & Grummer-Strawn, 2012). More than 85% of mothers breastfed their infants exclusively until three months. However, only 32.4% of mothers could achieve their desired duration of six months of exclusive breastfeeding. Marriage was positively associated with breastfeeding exclusively until six months while smoking and obesity negatively impacted on intentional exclusive breastfeeding duration (Perrine et al., 2012). Consequently, research has shown that being married and having

emotional and financial supports from a partner were related to initiation and prolonged duration of exclusive breastfeeding (Callen & Pinelli, 2004; Perrine et al., 2012).

To explore the influence of psychosocial factors on exclusive breastfeeding, Bai et al. (2009) conducted a qualitative study on women who lived in central Indiana in the USA and used an open-ended questionnaire. They found three factors that were associated with breastfeeding, such as the health and emotional advantages of continuing exclusive breastfeeding until six months; the positive impact of having support from family and friends and the negative consequences of having little social support as well as the attitudes of health professionals. Likewise, Sikorski, Renfrew, Pindoria and Wade (2003), carried out a systematic review to examine the influence of social support on breastfeeding duration. The authors considered 20 randomised controlled trials in which extra breastfeeding support was provided in order to improve the breastfeeding rates. The researchers identified that providing additional support, particularly from health professionals, increased any breastfeeding duration up to six months. However, for six months exclusive breastfeeding, the effectiveness of providing additional support, particularly lay support, was significantly higher. The research also suggested that in order to reduce the risk of diarrhoeal illness, breastfeeding exclusively should be promoted and that providing lay support can effectively increase the duration of six months exclusive breastfeeding (Sikorski, Renfrew, Pindoria, & Wade, 2003).

In order to study the efficacy of peer counselling on exclusive breastfeeding duration, Agrasada et al. (2005), conducted a randomised control trial on 204 mothers who were divided into three groups, two intervention groups and one control group. One group received home-based counselling visits by trained counsellors in the area of lactation, and the other



group received support from the trained counsellors in general infant care topics. The results indicated that mothers who received home visits from lactation consultants had higher rates of six months exclusive breastfeeding (32%) compared to the other intervention groups at 3% for the topic cohort and none for the control group. None of the mothers in the control group received home visits and extra support to continue to breastfeed exclusively to six months. Consequently, the study demonstrated the efficacy of breastfeeding support by trained peers on six months exclusive breastfeeding.

Overall, for promoting exclusive breastfeeding duration particularly after three months, the positive influence of social support cannot be ignored. The review of the literature has shown apart from the effect of socioeconomic status on breastfeeding duration, mothers who received extra support from family, health professionals and peers, exclusively breastfed their infants for a longer period. In chapter five of this study, the reasons for stopping exclusive breastfeeding between three and six months will be explored.

### **The influence of family supports on exclusive breastfeeding**

Beliefs and support provided by people who are around the mother, such as the partner or grandmothers, may impact upon exclusive breastfeeding in the first six months of life. Their support, breastfeeding experience and advice can encourage new mothers to initiate and maintain breastfeeding. For example, Cernadas et al. (2003) carried out a quantitative study on 584 mothers and their infants in Buenos Aires, Argentina and found that though 97% of babies were breastfed at discharge, the rates of exclusive breastfeeding at one, four and six months were 83%, 56% and 19% respectively. They demonstrated that there was no relationship between exclusive breastfeeding duration and maternal and antenatal factors

such as the frequency of antenatal visits, age, the number of birth and vaginal birth or caesarean delivery. However, they reported that there was a significant relationship between maternal education levels and the history of breastfeeding with previous babies. In addition, they claimed that family support was the most important factor influencing exclusive breastfeeding duration in their study. The influential role of fathers on the intention to breastfeed has been demonstrated (Arora, McJunkin, Wehrer, & Kuhn, 2000b; Wolfberg et al., 2004). However, in some cases fathers may have a negative influence because of concerns about their role in infant feeding, bonding with their newborns and ability of their wives to do housework (Dennis, 2002; Dodgson, Duckett, Garwick, & Graham, 2002; Moore, Anderson, & Bergman, 2007; Scott & Binns, 1999). In an innovative pilot study in Texas, the Women, Infants and Children Department (WIC) used a face to face counselling program for fathers that not only increased breastfeeding practice rates, but also indicated significant improvement in fathers' information about breastfeeding benefits so that they could play a supportive role for their breastfeeding partners (Stremler & Lovera, 2004).

To explore the importance of male partner support for breastfeeding women, a qualitative study involving in-depth interviews was conducted with 19 women from an urban area in the North-eastern USA (Nickerson, Sykes & Fung, 2012). After analysing the interview transcripts, ten themes emerged which showed that practical and emotional support from husbands or partners was beneficial for mothers especially during times of unexpected breastfeeding difficulties. The women also stated that the benefits of their partners' support were much greater than benefits from advice provided by friends, lactation consultants or other health professionals. The authors concluded that women acknowledged the support

from their partners which took the form of encouragement and understanding in order to continue breastfeeding (Nickerson, Sykes, & Fung, 2012).

In order to evaluate the influence of breastfeeding support from family members a prospective cohort study of 3822 participants was conducted in Germany (Kohlhuber et al., 2008). The researchers identified that the support of family is an influential factor for breastfeeding practice. It follows that health promotion initiatives in the area of infant nutrition should focus upon all family members especially fathers. It was also suggested that in lower socio-economic families the effectiveness of family support on breastfeeding practice should be acknowledged and targeted strategies implemented.

A quantitative study carried out on 4690 women explored the importance of family support for breastfeeding mothers (Mueffelmann, Racine, Warren-Findlow, & Coffman, 2014). The study showed that the rate of exclusive breastfeeding in the first few weeks after birth was higher amongst mothers who perceived that their male partners, as well as their mothers, had a favourable attitude toward exclusive breastfeeding. The researchers reported that family members played a significant role in supporting breastfeeding mothers to breastfeed exclusively. The findings suggest that grandmothers should be educated along with pregnant mothers about the advantages of breastfeeding and the risks of formula feeding (Mueffelmann et al., 2014). Grandmothers play a crucial role in developing a successful breastfeeding practice, because their knowledge and experience, as well as attitudes towards breastfeeding, are influential in regards to their daughters initiating and maintaining breastfeeding (Grassley & Eschiti, 2008; Grassley & Eschiti, 2007; Grassley, Spencer, & Law, 2012). A qualitative study of 35 grandmothers in North Texas, USA, (Grassley &

Eschiti, 2007), focused on “what grandmothers want” to support breastfeeding; three themes were identified: “*being helpful*”, “*updating my knowledge*” and “*learning together*.” Researchers found that grandmothers have a desire to support their breastfeeding daughters emotionally and practically, they stated that their knowledge related to breastfeeding is not based on newly recommended breastfeeding practices, and they suggested several ideas about the delivery of education for grandparents which focused on “*learning together*”. Recommendations included specific classes or written information designed for grandparents and promoting a tea programme to bring expectant mothers and grandmothers together (Grassley & Eschiti, 2007).

In a qualitative study of the grandmothers’ role in infant care and breastfeeding support, Reid et al. (2010) interviewed 11 grandmothers in South Western Sydney, Australia, where the breastfeeding duration rate is lower compared to other parts of Sydney. After content analysis of the data three themes emerged which showed the challenges and dilemmas that grandmothers faced when they wanted to support their breastfeeding daughters. These themes were described as: “*Presence: just to be supportive and do whatever I can to help...*” (Reid et al., 2010, p.77), “*Position: they have got to learn to do it themselves, and learn to cope ... but if she asks me for help, I’m there*” (Reid et al., 2010, p.77), “*Power versus Presentation: No. I stay out; I’m just the grandmother*” (Reid et al., 2010, p.78).

In a qualitative research about the importance of breastfeeding support from grandmothers, Grassley and Eschiti (2008) interviewed 30 new mothers and used content analysis. They found that there was not a significant difference between experienced grandmothers and grandmothers without breastfeeding experience in providing support for

their daughters that resulted in successful breastfeeding. An additional finding was that all new mothers in this study wanted their own mother's support for breastfeeding practices. Grassley and Eschiti (2008) also suggested that health professionals should enhance maternal grandmothers' information and support for breastfeeding.

In order to explore the main reasons for introduction of solids earlier than six months to infants in Malawi, a quantitative study was conducted on 160 caregivers of children (Kerr, Berti, & Chirwa, 2007). It found that 65% of the infants started solids in their first month of life, and only 4% of the children were breastfed exclusively at six months. They reported that grandmothers were the leading decision makers who encouraged the introduction of solids earlier than six months after birth in order to protect babies from illness or hunger (Kerr, Berti, & Chirwa, 2007). In a similar study in Brazil, researchers conducted a prospective study on 601 mothers; information about grandmothers was obtained via interviews with the mothers. They found that non-daily contact with the maternal grandmother was the most positive factor influencing exclusive breastfeeding for six months and both maternal and paternal grandmothers had an impact on the early introduction of water, tea, formula or cow's milk (Susin, Giugliani, & Kummer, 2005). Therefore, researchers who studied the influential factors that improved breastfeeding rates suggested that health care professionals should provide education around breastfeeding for mothers and grandmothers (Kerr et al., 2007; Nankunda, Tylleskar, Ndeezi, Semiyaga, & Tumwine, 2010; Susin et al., 2005).

To evaluate the role that grandmothers play in decision making process for initiation and duration of breastfeeding, an Australian randomized control trial was conducted on 72 pregnant women (Winterburn, Jiwa, & Thompson, 2003). The researchers divided

participants into intervention (n=30) and control (n=42) groups and asked the pregnant women in the intervention group to choose a close female confidante for their breastfeeding support with most of the women selecting their own mothers. The midwife then provided breastfeeding education for both mothers and grandmothers in the intervention group during the antenatal classes. For pregnant women in the control group, the midwife educated only the mothers around breastfeeding. After analysing data relating to the rates of breastfeeding initiation and duration, researchers found that the duration of breastfeeding increased significantly amongst mothers in the intervention group compared to the control group. In contrast, according to a recent study in the US (Pilkauskas, 2014), researchers examined breastfeeding of infants who live in a three-generation household in which parents were co-resident with maternal or paternal grandparents. They used two sets of data, the Early Childhood Longitudinal Study-Birth Cohort (n=8250) and the Fragile Families and Child Wellbeing (economically disadvantaged) Study (n=4053). For data analysis, they used multivariate logistic regressions with extensive socio-demographic controls. The researchers found a lower breastfeeding duration rate at six months amongst newborns who lived in a three-generation co-residence family. The results of this research have shown that living in a three-generation co-residence home and being lower-income family was associated with a breastfeeding duration that was shorter than six months. In addition, the rate of three-generation families was higher amongst economically disadvantaged group compared to the Early Childhood Longitudinal Study-Birth Cohort group. The researchers concluded that grandparents might discourage breastfeeding due to a range of reasons including lack of breastfeeding experience, lack of knowledge about the health benefits of breastfeeding for mother and baby and the lactation issues of their daughters or grandchildren. Consequently,

to promote, protect and support breastfeeding, health professionals should consider grandparents as well.

In order to understand the quality of breastfeeding support from grandmothers, Almroth et al. (2000) carried out a qualitative study in South Africa that collected data through focus groups and face to face interviews with mothers, maternal grandmothers and health professionals. They found that grandmothers were very supportive of daughters who initiated and maintained breastfeeding exclusively until six months. An additional finding was that the grandmothers believed that even water and supplementations which were advised by health professionals were unnecessary and harmful for an infant's health. On the contrary, Franca et al. (2008) in a cross-sectional study of 211 mothers and infants in Brazil, discovered that a grandmothers' role might be a negative factor for exclusive breastfeeding, and also the absence of support from a maternal grandmother was a positive factor for breastfeeding exclusively during the first month of life. In another quantitative study on 601 mothers in Brazil, the rate of exclusive breastfeeding during the first month of life was noticeably lower in infants who had their maternal or paternal grandmothers present at their home (Susin et al., 2005). These studies demonstrate the maternal grandmother's influence may be generation- and culture-specific.

In order to develop an understanding of the role of culture on breastfeeding practice in the USA, qualitative research was carried out on 42 participants who were pregnant or had a baby younger than one-year of age (Fischer & Olson, 2013). The participants were divided into two groups comprising African-American and Caucasian women. The research identified that all participants knew that breastfeeding is best but disagreed in their

perceptions about breastfeeding barriers. The authors concluded that increasing breastfeeding rates require that cultural differences among women are acknowledged (Fischer & Olson, 2013).

Overall, the review of the literature identified that both the father of the child and the maternal grandmother play important support roles for new mothers. Anecdotal evidence from New Zealand research (Benn & Phibbs, 2007) suggested that fathers consistently played a significant role in breastfeeding initiation and maintenance. The experience and knowledge of maternal grandmothers can also positively or negatively influence daughters' decisions to initiate and maintain breastfeeding. Increased involvement of the maternal grandmother is often helpful in the maintenance of breastfeeding, although interestingly this was not always the case, and may vary between cultures. The importance of social support, as well as the variety of supports described by participants, will be outlined in chapter six of this report. In addition, the quality of support for breastfeeding mothers from family members including grandmothers, male partners and the extended family members will be discussed in both chapters six and seven.

### **The influence of health professional support on exclusive breastfeeding**

Support from health professionals during pregnancy and childbirth is likely to be critical for breastfeeding initiation as well as contributing to exclusive breastfeeding duration. For example, the quality of breastfeeding support from health professionals was explored by Cottrell and Detman (2013) who conducted a qualitative study on 253 African American women. The researchers used a face to face interview four weeks after birth and content analysis of the interview transcripts. They reported that the majority of participants received



breastfeeding information during pregnancy from their antenatal care provider. Participants who breastfed their babies knew about the maternal and child health benefits of breastfeeding. Reasons for not breastfeeding were pain, time limitation, employment or study, personal health choices and uncomfortable feelings about breastfeeding. Factors which facilitated breastfeeding included health professionals who encouraged breastfeeding practices, information about the advantages of breastfeeding, breastfeeding education or support groups, and initiation of breastfeeding by immediate skin to skin after the birth. They also identified that the causes of early weaning and supplementation were worrying that the baby was not getting enough breast milk, a desire for separation between the mother and newborn, difficulty with latching, pain and medical complications.

To identify how breastfeeding is professionally supported during the antenatal, intrapartum and postpartum periods, a systematic review of the literature was conducted in Finland (Hannula, Kaunonen, & Tarkka, 2008). The researchers reviewed 30 studies that focused on breastfeeding and health professional support and concluded that the best method for supporting breastfeeding is through a combination of support from health professionals and peers. They found that women and their families need culturally safe and individualised breastfeeding support. Mothers also needed encouragement to improve their self-efficacy and empowerment in order to feel that they are a good parent who is able to look after their baby effectively. Another important finding of this review was the importance of health professional support in successful breastfeeding practice. The authors suggested most health professionals needed to update their breastfeeding knowledge to have the ability to support the mothers successfully.

In order to explore the role that health professionals play in breastfeeding support in the UK, a qualitative study was conducted on 720 women during the postpartum period (Graffy & Taylor, 2005). They found that while most women made positive comments about their breastfeeding experiences, others believed that they did not receive enough information about and support for breastfeeding. Information needed about breastfeeding included practical education about positioning the baby to breastfeed, advice and suggestions, encouragement, reassurance and acknowledgement of their experiences and feelings about breastfeeding. Half of the research participants had received additional support from a lactation consultant. Regardless of breastfeeding status women had a positive experience with the support that the lactation consultants provided for them. The characteristics of the lactation consultants that were mentioned by the women included an excellent listener, non-judgemental, professional, knowledgeable and reassuring. In contrast, research on the efficacy of professional support by McInnes and Chambers (2008) found that informal social support is more important than health professional support. The researchers reviewed electronic databases and published articles from 1990 to 2005, later updated in 2007. Articles were included in the meta-synthesis if they used qualitative methods of research, were published in English and were about breastfeeding in the Western countries. Factors impacting on the efficacy of professional support included time pressures, unavailability of healthcare professionals and unhelpful practices (e.g. recounting the benefits of exclusive breastfeeding for mothers who want to stop exclusive breastfeeding) or conflicting suggestions about breastfeeding from health professionals.

A qualitative study aimed at gaining an understanding of the postpartum experiences and support needs of first-time mothers was conducted in Singapore (Ong et al., 2013). The

researchers interviewed 13 first-time mothers one week to 11 days after their hospital discharge. After thematic analysis, five themes emerged from the thematic analysis: (1) mixed emotions: anxiety and stress about infant care; (2) breastfeeding concerns: low breast milk supply and physical discomfort; (3) social support: many participants had sufficient social support from family members except their husbands; (4) culturally based postpartum practices: the majority of participants followed the traditional postpartum practices of their culture; (5) professional support needs: participants needed more information, access to health care services and continuity of care. The authors concluded that after discharge from the hospital postpartum care should be provided by health professionals especially for first-time mothers (Ong et al., 2013).

In a qualitative study using in-depth interviews with 12 mothers 7-18 weeks postpartum in the UK, Andrew and Harvey (2011) identified that breastfeeding experience and information about the health advantages of breastfeeding were substantial factors for breastfeeding initiation, while the decline of maternal independence and self-confidence related to a shorter duration of breastfeeding. They also found that several mothers who had their second babies did not have breastfeeding support from health professionals despite having a history of difficulty with breastfeeding. Andrew and Harvey (2011) suggested that health professional support should be provided for all mothers regardless of having a history of breastfeeding.

In order to investigate the influence of social support on the duration of exclusive breastfeeding, Britton et al. (2007), evaluated 34 registered trials with the Cochrane Pregnancy and Childbirth group, from 14 countries across the world. They reported that both

peer and professional support prolonged the duration of exclusive and partial breastfeeding. Moreover, they identified that exclusive breastfeeding was considerably extended when both skilled support from health professionals and peer mentoring were combined.

The association between using a nipple shield and the duration of breastfeeding was explored in a quantitative study involving 4815 Danish mothers (Kronborg, Foverskov, Nilsson, & Maastrup, 2016). Results showed that 30% of mothers used nipple shields for breastfeeding and the first-time mothers used nipple shields more often than the other mothers. However, there was not a significant relationship between the use of a nipple shield and the longer duration of exclusive breastfeeding. While using a nipple shield was effective for breastfeeding mothers to overcome their early breastfeeding problems, the extra supports that they needed to sustain their breastfeeding were absent such as education or extensive social support especially for young and first-time mothers (Kronborg et al., 2016).

Overall, the review of the literature has shown the significant influence of health professionals on breastfeeding behaviour. In chapter eight of this thesis, the effect of support from health professionals on exclusive breastfeeding initiation and duration will be explored. Resistance to breastfeeding as a result of feeling pressured, guilt and perceived judgements around formula feeding as well as surveillance or monitoring of the parents by health professionals who are employed by the government are the key themes within chapter eight. Consequently, Michael Foucault's<sup>18</sup> (1972) theories about governmentality and bio-power of are applied as a framework for understanding mothers' resistance to breastfeeding.

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<sup>18</sup> Michel Foucault (1926-1984), was a French philosopher, historian, social theorist and one of the influential thinkers whose work has affected the development of social constructionism. Foucault's theories addressed

## **The influence of social media on exclusive breastfeeding**

In this modern world, using the Internet for breastfeeding support is a common trend. Therefore, in the current research, chapter nine is dedicated to the influence of support through social media such as health-focused websites, infant feeding apps and social networking related to six months exclusive breastfeeding. Geoghegan-Morphet et al. (2014) explored the efficacy of providing health professional support in combination with peer support for breastfeeding mothers using information technology which is a new method for supporting breastfeeding. They identified that in comparison with the traditional methods, it is a cost-effective method of breastfeeding support. The researchers set up an online breastfeeding clinic for new mothers in Canada and claim that this virtual clinic has the potential to promote breastfeeding effectively at the national level as long as the Internet is accessible.

In a qualitative ethnographic study on the effect of social media on breastfeeding among first-time African American mothers and their significant others, Asiodu et al. (2015), applied two theories related to “family life course development” and “black feminist theory” to understand the influence of social media on breastfeeding behaviour. The research findings have shown that the participants frequently used the Internet especially smartphone apps for seeking health information and social support during pregnancy and in the postpartum period. However, finding the online health information about infant feeding was not easy for these participants due to the limited numbers of culturally safe infant feeding websites on the

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the relationship between knowledge and power and the ways that modern states use disciplinary power for social control through social institutions. Retrieved from:  
[http://www.philanthropyandphilosophy.com/profile\\_michel\\_foucault.php](http://www.philanthropyandphilosophy.com/profile_michel_foucault.php) . Accessed date 17/01/2017.

Internet for the African American women. Due to the increasing popularity of the Internet and smartphone, the researchers recommend that social media as the best vehicle for sending infant feeding messages to the target audiences in order to promote breastfeeding.

In Western Australia, a recent intervention study was carried out on 414 women to evaluate the effectiveness of providing health professional support for breastfeeding through the social media (Giglia, Cox, Zhao, & Binns, 2015). The research has shown that more women in the intervention group breastfed their babies exclusively for six months compared to the control group who did not use the breastfeeding website. The researchers concluded that providing professional support via the Internet may promote the duration of breastfeeding exclusively. Similarly, in another intervention study in the Midwestern United States (Ahmed, Roumani, Szucs, Zhang, & King, 2016), the researchers examined the effect of an online program about infant feeding on 141 new mothers. The new mothers in the control group just received the routine health professional support in the hospital, while women in the intervention group were offered access to an interactive online monitoring program about breastfeeding. The new mothers were able to enter data about their newborn's breastfeeding quantity as well as data about their infants' output until one month postpartum. An online follow-up questionnaire was sent to all the new mothers who participated in the research at one, two and three months postpartum to examine breastfeeding rates and postpartum depression outcomes. There was no significant difference between the control group and the intervention mothers regarding the demographic status, postpartum depression and the rate of breastfeeding at discharge from the hospital. However, there was a significant difference in breastfeeding outcome. The rate of exclusive breastfeeding increased significantly until three months in the intervention group to 84% compared to the control

group at 66%. Consequently, the researchers concluded that providing professional support through the Internet for new mothers may increase the duration of exclusive breastfeeding.

In order to evaluate the characteristics of the users of parenting websites and the influence of online health information on the parents' behaviour in the UK, Van Teijlingen and Pharm (2015), carried out a qualitative study on 178 users of breastfeeding forums on the "healthtalk.org" website. The research identified that most women who used the breastfeeding web page were health professionals or healthcare students. Most users claimed that the online health information that they gained was used in their infant care practice and almost all of them said they would recommend or that they were highly likely to suggest this breastfeeding website to others<sup>19</sup>. The users reported that using the website is easy and the videos about other mothers' breastfeeding experiences were the most popular resources for informational and peer support. The researchers found that although the health professionals claim that their clients had problems with using the online breastfeeding program, the research identified high-quality and research tested breastfeeding information on the Internet is one of the most effective methods for supporting and promoting breastfeeding and that midwives should recommend these sites to their clients.

Overall, research on the influence of the Internet on breastfeeding behaviour is recent in New Zealand, and nationally little qualitative research has been done to explore the quality of social media and social networking platforms related to breastfeeding including how breastfeeding mothers use the breastfeeding-focused smartphone apps and social networking websites. Consequently, there are few published studies in this area in New Zealand.

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<sup>19</sup> The theory of "strength of weak ties" developed by Granovetter (1973) will be discussed in chapter nine.

However, a review of the current international literature has identified the crucial role that social media and smartphone apps play in supporting breastfeeding since more new mothers use the Internet and smartphone for seeking health information and social support related to breastfeeding. The influence of breastfeeding support through social media will be explored in chapter nine of the thesis.

## **Conclusion**

After a review of the literature, it was found that there are many studies about factors influencing initiation and prolongation of exclusive breastfeeding. However, the impact of antenatal intention to breastfeed as well as health professional, family and social media support on six months exclusive breastfeeding has not been fully evaluated within the literature. The limited number of studies carried out on six months exclusive breastfeeding in New Zealand suggests that qualitative research about the influential factors on breastfeeding intention, initiation and exclusive duration, and why the rate of exclusive breastfeeding tails off between three and six months will make a significant contribution to the literature on exclusive breastfeeding in this country. In addition, findings of this research about the quality of breastfeeding support through social media such as Facebook, Skype and smartphone apps will make a meaningful contribution to both the domestic and international literature.



## ***Chapter3: Methodology and Research Design***

### **Introduction**

The previous chapter reviewed the New Zealand and international literature related to breastfeeding including the influence of antenatal intention, formal and informal social support on exclusive breastfeeding behaviour. This chapter discusses the epistemological and theoretical frameworks underpinning this thesis, the methodology, the method and analytical process as well as ethical considerations associated with doing this research. In addition, this chapter considers all the efforts undertaken by the researcher to address the challenges which were faced during this research journey.

### **Beginning the research journey**

Any research journey starts with an idea for the research, then follows with thinking and reading the relevant existing literature (Denzin & Lincoln, 2005). In the next stage, the idea turns into a research question or a series of research aims which create the epistemological or theoretical framework underpinning the research (Denzin & Lincoln, 2005). During the research journey, these research questions might change or continue unchanged (Bruce & Howard, 2012; Jeanfreau & Jack, 2010). I started with a question for the current research - why is the rate of six months exclusive breastfeeding low in developed countries? I then started reading relevant publications related to exclusive breastfeeding initiation and duration. I identified that breastfeeding tends to be represented as a natural and innate

behaviour and that the focus of breastfeeding research tends to be on the ontological dimensions of the mother-infant dyad. The research question was turned into a set of research aims which considered factors influencing breastfeeding that are located outside of the mother-infant dyad. This focus on external influences on the experience of breastfeeding led to the selection of a qualitative research design and social constructionism as the epistemological framework and main theoretical approach for the thesis.

## **Social Constructionism**

Social constructionism is a theory which suggests that knowledge is created historically and shapes and is shaped by human social interactions (McLeod, 1997). Social relationships and culture influence each individual's perspectives and consciousness as well as the nature of his or her interactions with other people. Therefore, philosophical truths and embodied realities are historically created and contemporarily shaped by the on-going social networks in which individuals are embedded (Owen, 1992). Social constructionism identifies that individual perspectives, consciousness and the ways that they interact with each other, as well as the common metaphysical elements (e.g. assumptions of what is good and bad), which people take for granted, are learnt through social interaction (Owen, 1992). According to social constructionist theory, there are multiple realities and not one valid universal reality (Galbin, 2014; Gergen, 1985; Owen, 1992), and we may only know individual realities through the stories that people tell about themselves, their experiences and circumstances (Galbin, 2014). Social constructionism rejects the perspective of constructivists which believe that the mind is a mirror of reality, but it states realities are constructed by the individuals through the role that they play in their sociocultural contexts (Galbin, 2014). It is

important to note that language plays a critical role in social constructionist theory. Language is more than a way of communication and interaction; human beings exist in and through language which does not simply reflect the world but actively constructs social reality (Galbin, 2014). Therefore, truth or knowledge is created by individuals through the use of a shared language in a shared social context (Galbin, 2014). According to the social constructionist point of view, there is no existing external truth as all understandings of the social world are mediated through language (Anderson & Goolishian, 1988). Human realities, assumptions and beliefs are artefacts which are fabricated through socially constructed discourses (e.g. breast is best). Therefore, social constructionism does not intend to find the truth, but aims to investigate how reality is constructed through discourse (Galbin, 2014; Gergen, 1985; Owen, 1992). In relation to this research for example, “Breast is best” is more than a health message about the nutritional value of breast milk, as it encourages mothers to conduct self-surveillance about the extent to which they are ‘good’ mothers, through their feeding choices, and it stigmatises and marginalises mothers who for whatever reason are not able to breastfeed their babies.

Social constructionism or the social construction of reality is not only a theory of knowledge that reflects the epistemological framework underlying a study, it also helps researchers to design a suitable methodology for their research (Gergen, 1985). Social constructionism recognises the complexities of each individual’s consciousness while acknowledging that people create their social world through social relationships and social interactions (Gergen, 1985). Social constructionism is able to answer the epistemological question of research in the social sciences through providing a thorough understanding of the nature of knowledge (Chell, 2000). Social constructionism also assists researchers to

understand an individual's behaviour through their social relationships and social interactions (Chell, 2000).

The principles of social constructionism include multiple realities and these realities are socially constructed through the agreed and shared language used by the individuals in their social contexts (Galbin, 2014; Gergen, 1985; Owen, 1992). As knowledge is created and maintained through social interactions, social constructionism highlights the importance of human reflexivity, as well as the importance of both language and meaning making (Galbin, 2014). According to Cojocaru and Bragaru (2012), meaning is not a reflection of an objective reality, but it is a product that is invented by the social and cultural frameworks through which language and discourses (e.g. breast is best) are applied and symbolic behaviours (e.g. breastfeeding practices) are enacted. Therefore, it can be considered that the social constructionist principles are compatible with qualitative methodologies as well as research that explores the opinions and perspectives of individuals in their social context (Becvar & Becvar, 2003).

Barbour (2008) has suggested that a qualitative methodology with a social constructionist approach can also consider the influence of other macro elements such as socio-economic and political contexts. Therefore, if we aim to understand exclusive breastfeeding behaviour thoroughly, the breastfeeding mother cannot be considered outside of her social networks, relationships and interactions as well as the influence of the broader political and socio-economic contexts of her life. Consideration of social constructionism as the epistemological and theoretical frameworks of this research helped the researcher to translate the thesis findings into the key argument that “exclusive breastfeeding practice is socially constructed

and influenced by the virtual and actual social networks around the mother as well as the historical, political, geographic and socio-economic context of the mother's life".

There is also a need for epistemological congruency throughout the entire research study (Taylor & Francis, 2013), which is achieved through the maintenance of consistency, continuity, comprehensiveness and connections between the methodology, methods and process. In addition, congruency between the chosen epistemology should be present in reports of findings and implications associated with the research (Taylor & Francis, 2013). Therefore, qualitative methodology was selected as an appropriate methodology for this research and epistemological ideas maintained through a systematic approach throughout the thesis.

## **Qualitative methodology**

Methodology is the theoretical assumptions underpinning research, while the method is what the researcher should do to collect and analyse the data (Taylor & Francis, 2013). In qualitative studies, the primary purpose of the researchers is to answer the research question aims and objectives via evaluating the different social settings and/or the groups of people who inhabit these sites through systematic methods. In qualitative health research, the most commonly applied tool for collecting data is the "in-depth" interview as everything that humans say is the consequence of their interpretation of their social worlds. Therefore, individuals encode their intentions and attach significance to events through the use of language. Interviewing is commonly used for research on personal and sensitive issues (e.g. breastfeeding experiences), studying participants' perceptions related to health problems and for identifying potential factors to promote health (Tong, Sainsbury, & Craig, 2007; Wright,

Holcombe, & Salmon, 2004). The main target of interviewing is an exploration of the use of language as a symbolic way of communicating everyday realities (Bruce & Howard, 2012). Therefore, qualitative research enables researchers to explore other people's experiences and perceptions of their everyday lives (Bruce & Howard, 2012), and draws attentions to possible changes in established routine behaviours (Taylor & Francis, 2013).

Established interpretive qualitative approaches include phenomenology, grounded theory and ethnography (Cooper & Endacott, 2007). However, when a research question does not fit with these established qualitative approaches a generic qualitative methodology can be used as a research methodology. Therefore, the researcher is able to design the research based on the specific research question, the epistemological framework and the field of the study (Kahlkeh, 2014). Furthermore, the generic qualitative methodology is suitable for researchers who want to conduct research in well-researched areas (e.g. breastfeeding), or who may seek a new way to find an answer to their research question that it is not close to one of the established qualitative approaches (Lim, 2011). The generic qualitative approach is epistemologically social constructionist (Kahlkeh, 2014; Merriam, 2009). The generic qualitative methodology's principles are similar to other qualitative approaches in terms of their aims which are understanding how people interpret their experiences, how they create their worlds and how they construct the meaning of their experiences (Merriam, 2009). Since the generic qualitative methodology is inductive, thematic analysis and thematic coding of the data are common practices for researchers who use this methodology to design their research (Lim, 2011). In addition, the generic qualitative approach is an appropriate methodology when the researcher undertakes a study as an insider and has knowledge and understanding of the topic prior to conducting the research (Percy, Kostere & Kostere, 2015).

Therefore, the generic qualitative methodology was considered the most suitable methodology for the current research.

Although qualitative research has been criticised as lacking rigour or as being biased by the researcher's opinion (Patton, 2001), such criticisms fail to acknowledge that no research is neutral (White, 2002). It is important to note that research is shaped by the society which the research is developed, decisions about whose knowledge base counts, what topics are researched, the type of questions that are asked and how the data are analysed regardless of the kind of methodology used (Stewart, 2001; White, 2002). Research has shown that technical fixes such as purposive sampling, triangulation, grounded theory and respondent validation may improve the rigour of qualitative research projects. However, these technical fixes have limitations, and none of them promotes rigour in qualitative research if it is applied in itself (Barbour, 2001). Bruce and Howard (2012) point out that social science research tends to be done using a qualitative approach. In addition, the flexibility of the qualitative methodology allows the researchers to combine innovative strategies for both data collection and data analysis (Bruce & Howard, 2012, p. 418). Barbour (2001) has suggested that the rigour of the qualitative research can be improved through thoughtful research design, data analysis and avoiding the overzealous use of quantitative strategies in qualitative research design. Furthermore, if the generic qualitative methodology has been criticised as an atheoretical methodology, it can be strengthened if it borrows theory at the epistemological level or uses multiple techniques at the level of method (Kahlkeh, 2014). These strategies promote the rigour of generic qualitative methodology and make it attractive for researchers who need a flexible and valid methodology (Kahlkeh, 2014). In the current research, social constructionism was selected at the epistemological and theoretical levels. At the level of

method thematic analysis of the interview data was followed by the use of multiple theories to support and illuminate the identified themes in the form of an integrated discussion, and these theories were linked to the central theory of social constructionism.

There is always a theory in qualitative research (Bradbury-Jones, et al. 2014; Sandelowski, 1993). Research has shown that theory plays a major role in qualitative health research. The function of theory in health research provides a framework for analysing the data and it allows for the findings to be translated into a health policy or implications for practice (Meyer & Ward, 2014). There are many functions for a theory in qualitative research. For example, theory is able to offer a framework for analysing the data and acts like a scheme for representing the research findings (Bradbury-Jones et al., 2014). However, qualitative researchers often struggle with the application of theory in their research and the articulation of that theory in their research publications (Meyer & Ward, 2014; Wu & Volker, 2009). Therefore, the presence of theory in qualitative studies may vary from being absent to being more influential and central (Anfara & Mertz, 2014).

There are two ways of using theory in qualitative studies, firstly the theory comes out of the analysis of the findings of research as with grounded theory methodology, and secondly, an external theory is applied to the interview material in order to illuminate themes at work within the research. In the current research, the external theory of social constructionism was selected as the appropriate theoretical framework for this research. A social constructionist theoretical framework challenges the way that breastfeeding is considered as an innate behaviour and limited to the mother-infant dyad. It offers an opportunity to find new possibilities for promoting exclusive breastfeeding in different social contexts.



Bradbury-Jones et al. (2014) have pointed out the association between theory and the presentation of qualitative research is complicated. These authors argue that there are many published qualitative research papers that have applied a theory inappropriately in order to increase the chance of getting published in a peer-reviewed journal. However, the appropriate application of theory in the report of the qualitative research will improve the quality and extend the strength of the research.

Bradbury-Jones et al. (2014) have developed a “theoretical visibility typology” in which the use of theory within published qualitative research is ranked over five levels. In level one, the theory is not mentioned throughout the research publication and is “seemingly absent”. In the second level, some details related to the theory are discussed mainly in the introduction section of the report. However, any statement about the effect of the theory on the research cannot be found. In the third level, the theory is “partially applied” in that the theory is mentioned in some stages of the research such as in relation to the research questions and data collection. However, at this level, the relationship between the findings and the theory on the study outcomes cannot be found in the publication. In the fourth level, the theory is “retrospectively applied”; at this level, the theory is not mentioned in the initial sections of the report such as the introduction and methodology sections, but will be used at the end of the research paper to link the findings of the research to the theory. At the fifth level, the theory is “consistently applied” across the research report and Bradbury-Jones et al. (2014) consider level 5, as the best application of theory in a qualitative research report which involves the presence of the selected theory through out of the publication. In this thesis, the level five typology of Bradbury-Jones et al. (2014) was considered at the time of writing this thesis and social constructionism as a central theory consistently applied to this qualitative

research. Moreover, multiple theories were used in the integrated discussion of the themes presented in the data chapters of this thesis reflecting the level five typology of Bradbury-Jones et al. (2014). These multiple theories include the extended theory of “*planned behaviour*” proposed by Icek Ajzen (1991) which considers the importance of self-identity. The theory of stress, coping strategies and social support proposed by Peggy Thoits (1995), theories of “*governmentality*” and “*biopower*” developed by Michel Foucault (1972), theories related to the “*strength of weak ties*” proposed by Mark Granovetter (1973) and the theory of “*landscapes of care*” suggested by Milligan and Wiles (2010). All these theories are link to the central theory of social constructionism and emphasise the importance of social relationships, interactions, supports and networks around the mother. I will discuss the application of these theories to the research findings in the data analysis section of this chapter.

In order to research ethically, efficiently and practically, researchers cannot study the whole population, and they have to choose a sample size as part of their research design. In most qualitative studies the readers are left to ask how and why data saturation has been met. For example, a study on the representation of data saturation in the literature found that 18 qualitative studies that were published in top ranked journals mentioned data saturation, but not how this had been achieved (Caelli, Ray, & Mill, 2003; Francis et al., 2010). Within qualitative research, reaching data saturation may not be practical because for some approaches there is no limit for emergent themes as each individual is different and has a unique life experience (Green & Thorogood, 2013; Wray, Markovic, & Manderson, 2007). Mason (2010) has pointed out that applying a large sample to achieve greater significance is a characteristic of quantitative studies and it is not practical for qualitative research. Francis

et al. (2010) have suggested having a large number of participants within qualitative studies is also not ethical because the researcher would have an extensive amount of data that cannot be used in the data analysis. The main aim of conducting qualitative research is gathering sufficient information. Therefore the term “sampling adequacy” proposed by O’Reilly and Parker (2012), which determines the appropriateness of the information, is more useful than data saturation<sup>20</sup>. Typically, the sample size in a qualitative study is small, and the findings cannot be generalised to a population or a group. However, there should be a relationship between the size of the sample and the scope of the research project. For example, Clarke and Braun (2013) have recommended a sample size of thirty and larger<sup>21</sup> when using thematic analysis to fulfil the requirements of a PhD degree or a professional doctorate in the UK and New Zealand. Therefore, prior to the recruitment of participants for this research it was decided that an adequate number of participants would be around thirty women.

### **The space between**

To promote the rigour of a generic qualitative study, it is recommended that researchers should explain their theoretical position in the research alongside expressing their reasons for conducting the research, their academic affiliation, the research presumptions and their prior experiences related to the field of study (Cooper & Endacott, 2007). In qualitative methodology, the main principle is exploring the individual’s experience and the meaning

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<sup>20</sup> Item 22. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items’ checklist [Appendix 15].

<sup>21</sup> Retrieved from: School of Psychology, Auckland University, thematic analysis. Accessed date: 18/12/2016. <https://www.psych.auckland.ac.nz/en/about/our-research/research-groups/thematic-analysis/frequently-asked-questions-8.html#e41676c2ec9a2c4cae1664a24aa3a0a>

that she or he gives to that experience, therefore being an insider does not mean that the researcher has to have the exact same experience or knowledge. Therefore, in the current research, my position is not limited to an insider researcher nor an outsider, but the “space between” (Dwyer & Buckle, 2009, p. 54). The space between is the best description for my role as a researcher who is a mother, with breastfeeding experience, and a midwife. I may be considered an insider because I have experience of breastfeeding, however, I breastfed my son around 20 years ago in a different country with different social and cultural contexts which create knowledge, experiences and perspectives for me that are significantly different to the current research participants’ perspectives. Also, I may be considered an insider because I am a midwife and thus I have a broad knowledge of birth, breastfeeding, exclusive breastfeeding and the lactation issues that mothers face when they breastfeed their babies. I also have clinical experience and have been involved in the consultation of mothers who had lactation issues. However, it should be considered that I moved to New Zealand to do the PhD and to conduct this doctoral research. I had not had any experience of living, training, practising clinically and doing research in any developed country, including New Zealand, prior to conducting this research. I am from Iran, an under-developed country in the Middle East. The midwifery system in my country is highly medicalised and midwives do not practise holistic midwifery that is women-centred and in partnership with women. When I was practising in Iran as an Iranian midwife, I did not support my clients to make informed decisions about their pregnancy and birth. Therefore, I did not expect that the participants in the current research would complain about the pressure to breastfeed exclusively from the New Zealand health system and to talk about breastfeeding discourses. I did not expect that the research participants would talk about breastfeeding support from their male family

members or that men would even support breastfeeding in public places. In my country Iran, women have to cover their head and they are not allowed to show their hair, let alone their breasts. Islamic law prohibits women from talking about their breastfeeding experience or posting a photograph of themselves breastfeeding on social media sites like Facebook. Most Iranian women are not aware of their rights to bodily autonomy as a result of the form of hegemonic masculinity that is dominant in Iran which can be seen in both family and the wider community. Therefore, I had different assumptions, experiences and knowledge when I commenced the current research. However, after reviewing the literature, I identified that in order to promote exclusive breastfeeding in developed countries, perhaps we should look beyond the mother-infant dyad. Therefore, I chose social constructionism as the most appropriate epistemological framework for the current research. The social constructionist approach helped me to design the current research and interpret the research findings. Having midwifery knowledge and breastfeeding experience also assisted me to create trust in my relationships with the participants who talked about their breastfeeding experience which may be considered a sensitive topic by some of the participants. The main aim of this research was to gain an in-depth understanding of exclusive breastfeeding behaviour as well as the influence of the social contexts around the mother. A social constructionist approach encourages the equal involvement of both researcher and research participants in exploring and co-constructing the multiple realities (Chell, 2000; Percy et al., 2015) that are associated with breastfeeding.

## **The method**

The principal aim of this section is to discuss how this current research was conducted through “*telling a story*” about the research method and process (Bruce & Howard, 2012, p. 401). Therefore, details related to recruiting participants, collecting data, inclusion and exclusion criteria, as well as data analysis are discussed. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items’ checklist by Tong, Sainsbury and Craig (2007) was developed to raise the profile of social science research methods through improving the quality of reporting and rigour in qualitative research. (Tong et al., 2007). Therefore, in this current research, the COREQ has been completed [see Appendix 15].

## **Original research design**

The original research design, which was outlined in my research proposal before the confirmation event for this doctoral research<sup>22</sup>, involved one face to face interview four to six weeks after the birth followed by monthly telephone interviews. In addition, the research topic and the research question were focused upon the influence of pregnancy intention status, professional, family and informal social support on exclusive breastfeeding (as reflected in question number 10 in the antenatal questionnaire, see Appendix 8).

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<sup>22</sup> At confirmation, PhD students are examined based upon their ability to defend the research for their doctorate. They should submit a confirmation proposal to the confirmation committee and present their research orally and defend their research proposal at a postgraduate research seminar in the academic unit. PhD students should demonstrate their relevant knowledge and abilities to conduct their doctoral research. The confirmation due date is within 12 months of the provisional registration of full-time PhD students. (Massey University, confirmation of registration, 2017). <http://www.massey.ac.nz/massey/research/higher-research-degrees/choose-doctorate/doctor-philosophy/confirmation-registration.cfm> . Accessed 11/01/2017.

After the doctoral confirmation meeting, the confirmation committee suggested a second interview for mothers who stop exclusive breastfeeding before six months. An additional topic focusing on the three to six-month period when breastfeeding rates fall dramatically in New Zealand was also added to the research.

## **Ethical considerations and approval**

The research was reviewed and approved by the Massey University Human Ethics Committee (MUHEC). The first MUHEC approval was granted before the confirmation of this doctoral research (30<sup>th</sup> January 2013). A second MUHEC approval was sought following confirmation when the second face to face interview for the research participants who gave up breastfeeding exclusively before six months was added. Both approval letters from the Massey University Human Ethics Committee are in the appendices [see Appendices 1&2].

## **Participant recruitment and inclusion criteria**

This research is a qualitative study involving face to face interviews with 30 new mothers<sup>23</sup> during the postpartum period. Women who were more than 30 weeks pregnant and met the inclusion criteria<sup>24</sup> were invited to participate in this study. The research was carried out between September 2013 and July 2014, with participants being recruited from the lower North Island of New Zealand [see figure 3.2] including Palmerston North, Wanganui, Wairarapa and Wellington. Christchurch had been suggested as an alternative venue, due to

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<sup>23</sup> Item 12. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>24</sup> Item 16. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

feedback from midwives in the lower North Island who suggested that the region was over-researched at that time and difficulties may be encountered recruiting participants as a result. However, the recruitment process was completed in less than one year with the majority of participants originating from the lower North Island. Only one research participant was from Christchurch as her mother-in-law worked in Palmerston North, and she informed her of the research after reading an advertisement that was placed in her workplace.

Advice regarding this research was sought from the Palmerston North Community Birth Services' lactation consultant as well as the doctoral research supervisors Dr Suzanne Phibbs and Dr Cheryl Benn. Dr Phibbs provided advice regarding the analysis of interview material contributed by Maori women or Maori families. Dr Benn is an International Board Certified Lactation Consultant (IBCLC), a local self-employed midwife in Palmerston North city and an academic; her experience was invaluable in guiding this doctoral research.





**Figure 3.2.** Map of New Zealand<sup>25</sup>. The research location included Palmerston North and Wellington.

### **Inclusion and exclusion criteria for participating in this research**

The following sections detail the inclusion and exclusion criteria for participating in this research. The main purpose of developing the inclusion criteria was to ensure that useful data was obtained that would enable the researcher to answer the research questions. The main research question focused upon factors that the negatively or positively influence the initiation and duration of six months exclusive breastfeeding which are external to the mother-infant dyad. Therefore, recruiting research participants who were able to initiate and maintain exclusive breastfeeding was the logical idea to set these inclusion and exclusion

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<sup>25</sup> Retrieved from: [http://www.world-guides.com/australia-continent/new-zealand/north-island/auckland/auckland\\_maps.html](http://www.world-guides.com/australia-continent/new-zealand/north-island/auckland/auckland_maps.html). Accessed date: 20/12/2016.

criteria. Only one participant was excluded from this research due to unexpectedly giving birth to twins and she could not initiate exclusive breastfeeding as a result. The reason for recruiting women who were 30 weeks pregnant or more was to prevent loss to follow up. The first contact with the research participants was around their 30th week of pregnancy and the second contact was about 6 weeks postpartum. Restricting the gap between the two contacts to four months decreased the likelihood that participants would be lost to the study. The inclusion and exclusion criteria were not presented on the research advertisements with screening occurring once a potential participant contacted the researcher. None of the women who contacted the researcher were rejected from the study because they intended to formula feed or mix feed. Four women contacted me through a research advertisement posted on Facebook, but were excluded due to their place of residence (e.g. Auckland) as it was too difficult for me to travel to them for the face to face interview. The inclusion and exclusion criteria for the research are set out below:

Inclusion criteria:

1. Women who were more than 30 weeks pregnant,
2. Women who were eligible for vaginal birth,
3. No alcohol or drug use,
4. Fluent in English

Exclusion criteria:

1. Mothers for whom breastfeeding is contraindicated for medical reasons,
2. Mental illness diagnosis,

3. The maternal use of certain drugs or treatments, including illicit drugs, antimetabolites, chemotherapeutic agents, and radioactive isotope therapies,
4. Multiple pregnancies (twins/triplets pregnancies),

## **Participant recruitment**

Once the MUHEC approved the application for this research, the recruitment of participants began. A research advertisement was provided [see Appendix 4] which called for female volunteers who were more than 30 weeks into their pregnancy. The researcher was introduced in the research advertisements<sup>26</sup> as a PhD student of midwifery at Massey University. Twelve participants were recruited through advertisements [see Appendix 4] placed at Palmerston North's Community Birth Services and a local newspaper (Manawatu Standard)<sup>27</sup>. Three participants were recruited from Palmerston North Hospital and one participant from the Manawatu Multicultural Centre (MMC). I also asked the local Lead Maternity Carer (LMC) midwives [see Appendix 5] to pass on written information about this research to pregnant women. Only one participant was recruited by an LMC midwife. I attended all of the antenatal education courses at Community Birth Services in Palmerston North from September 2013 to February 2014 and invited pregnant women to participate in the research; three participants were recruited from these classes by the researcher. I also put

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<sup>26</sup> Item 2,3,4,5,7,8. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>27</sup> Retrieved from: Manawatu Standard. Breastfeeding study targets first months. Accessed date: 20/01/2017. <http://www.stuff.co.nz/manawatu-standard/news/9661852/Breastfeeding-study-targets-first-months>

a comment about this research on the “Homebirth Aotearoa New Zealand”<sup>28</sup> website. “Homebirth Aotearoa New Zealand” is an online community on “Facebook”. It is also a closed virtual peer support group and safe place to discuss everything about the birth, infant feeding, self-care and child care. Women constantly post advice, suggestions and concerns as well as share their own experiences with other members of the group. Most members of this online community provide informational and emotional support to other new mothers related to postpartum challenges and lactation issues and particularly encourage them to breastfeed their infants exclusively. The website has 696 local members many of whom were pregnant at that time or were breastfeeding mothers. One-third of participants (10 out of 30) in this research contacted the researcher in response to the advertisement placed on Facebook.

## **Participants and research setting**

Thirty-seven women initially contacted the researchers via advertisements placed in public places as well as on breastfeeding social media websites and through snowballing. The sampling methods for this research were volunteer sampling and snowball sampling<sup>29</sup> (Jeanfreau & Jack, 2010). In volunteer sampling, the research participants voluntarily participate in the research project and are not known to the researcher<sup>30</sup>. In snowball sampling, the research participants suggest other participants to the researcher (Jeanfreau & Jack, 2010).

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<sup>28</sup> Retrieved from: <https://www.facebook.com/homebirthaotearoa> . Accessed date: 15/01/2017.

<sup>29</sup> Item 10. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items’ checklist [Appendix 15].

<sup>30</sup> Item 6. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items’ checklist [Appendix 15].

After initial contact, and screening in relation to eligibility criteria, the information sheet [see Appendix 6], consent form [see Appendix 7] and short questionnaire [see Appendix 8] related to antenatal intention to breastfeed exclusively was sent by mail, email or was delivered in person<sup>31</sup>. Thirty-three potential participants were then contacted and a time and venue for a face to face interview following the birth of their child arranged. Two participants declined to participate after the initial contact and one participant was excluded from the research before conducting the first interview due to unexpectedly having twins. Overall, 30 women participated in this research and seven women were excluded from the research due to twin birth (1), place of residence (4) or because they decided not to participate before the first face to face interview (2). None of the 30 participants was lost to follow-up<sup>32</sup>.

Initial data were collected via a short questionnaire [see Appendix 8] administered prior to birth to collect demographic information and to establish an antenatal intention to breastfeed. Demographic data were collected for inclusion in a research appendix [see Appendix 17] so that the information about the participants can be included in systematic reviews, synthesis studies or future qualitative analysis.

The questionnaire was followed by a face to face postpartum interview [see Appendix 9] between four and six weeks that focused on factors that facilitated and/or impeded the establishment of exclusive breastfeeding. Specific topics included support from health professionals, family members, and the community as well as support through social media.

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<sup>31</sup> Item 11. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>32</sup> Item 12,13. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

The interview was up to one hour in length at a time<sup>33</sup> and place nominated by the participants. All of the participants were interviewed in their own homes<sup>34</sup>. Only the interviewer and the interviewee were present during the meeting<sup>35</sup>. The interviews were recorded digitally<sup>36</sup> and transcribed verbatim. No field notes were recorded<sup>37</sup>. Interviews were conducted in English as all participants were familiar with this language.

Participants were then followed until stopping exclusive breastfeeding or until six months after the birth via an audio recorded<sup>38</sup> short telephone interview every month. The telephone interview [see Appendix 11] was approximately five minutes in length and focused on factors that supported or hindered exclusive breastfeeding. Participants were either telephoned at home using a landline, or I called them on their mobile phones after arranging a suitable time by sending a text<sup>39</sup>. There was another face to face interview for women who gave up breastfeeding exclusively earlier than six months to discuss what circumstances led them to decide to stop breastfeeding exclusively before their intended duration [see Appendix 10].

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<sup>33</sup> Item 21. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>34</sup> Item 14. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>35</sup> Item 15. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>36</sup> Item 19. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>37</sup> Item 20. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>38</sup> Item 19. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>39</sup> Item 11. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

Participant involvement in the research terminated following the postpartum face to face interview if the participant had chosen not to breastfeed exclusively. Only four participants' engagement in this research was terminated after the first face to face interview due to their mixed feeding or fully formula feeding practice. No participants were excluded from the study due to their baby being subsequently diagnosed with an intolerance to breast milk which it can be seen in some metabolic disorders like galactosemia<sup>40</sup> as identified by the newborn metabolic screening programme (2013). Due to a medical condition, one of the participant's newborn baby was prescribed infant formula by a paediatrician. However, she decided to persevere with breastfeeding. Another participant had a baby with a cleft palate, and another had issues breastfeeding due to inverted nipples. Despite these challenges, none of the participants was excluded from this research due to infant illness or breastfeeding difficulties.

## **The interviews and questionnaire**

In order to identify antenatal breastfeeding intention and demographic data, a questionnaire with 14 questions was used [see Appendix 8]. Five questions were related to demographic information such as contact details, the level of education, employment status, marital status, and ethnicity. The rest of the questions were about the history of previous pregnancies and breastfeeding, planned or unplanned pregnancy, the main maternity

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<sup>40</sup> Galactosemia is a rare genetic disorder, in which the infant's body is unable to use and metabolize the simple sugar galactose. Infants with galactosemia can develop symptoms in the first few days of life if they have formula or breast milk that contains lactose. If an infant with galactosemia is given breast milk or ordinary formula, substances made from galactose build up in the infant's system. These substances damage the liver, brain, kidneys, and eyes. (Medline Plus, Trusted health information for you). Newborn screening tests in New Zealand check for galactosemia.

Medical Encyclopaedia, Galactosemia, Accessed 11/01/2017.

<https://medlineplus.gov/ency/article/000366.htm>

caregiver as well as a question about the intention to breastfeed exclusively (see Table 3.1). All the research participants completed the antenatal questionnaire after 30 weeks of their pregnancy and prior to the birth, most participants emailed the completed questionnaire to the researcher.

<b>Table 3.1.</b> Example question from the questionnaire related to exploring antenatal intention to breastfeed exclusively at 30 weeks of pregnancy.	
At this point in your pregnancy, do you think that you are going to breastfeed your baby? (Circle one)	
	<ul style="list-style-type: none"> <li>• Yes, I intend to six months exclusively breastfeed my baby</li> <li>• No, I intend to use infant formula</li> <li>• At this point, I intend to use both formula and breast milk</li> <li>• I have not decided</li> </ul>

According to demographic data extracted from the antenatal questionnaires, the research participants in the current research represented a group of women with mostly shared socio-demographic characteristics. A relatively homogeneous sample of 30 women participated in this qualitative research. The participants were mature and most of them older than 25 years. Most participants in this research were born in New Zealand, and they were of European descent (24 out of 30); three women introduced themselves as Maori or Maori/Pakeha, and three women were from China, Pakistan and Iran. Most women in this research were highly educated, married, full-time employees and on maternity leave for more than six months. Most participants had a planned or wanted pregnancy, a midwife as their lead maternity caregiver (29/30), and had an antenatal intention to breastfeed exclusively for six months (29 out of 30). It meant that the participant sample for this research was dominated by a group of



women who were highly motivated to breastfeed exclusively for six months.<sup>41</sup> As a result of the characteristics of the research sample, the focus of the research changed again to explore factors that enhance successful breastfeeding as well as challenges for a group of women who were highly motivated to breastfeed.

In addition to the questionnaire, semi-structured interviews with open-ended questions were used for the first and second face to face interviews as well as the monthly telephone interviews. The first interview schedule was designed for all participants and conducted four to six weeks after the birth. The second interview schedule was designed for participants who gave up breastfeeding exclusively before six months and started mixed feeding or solids. The telephone interview schedule was designed for the monthly follow-up audio-recorded telephone interviews<sup>42</sup>. None of the face-to-face interviews and telephone interviews were repeated<sup>43</sup>.

The researcher carried out all of the face-to-face interviews and the telephone interviews<sup>44</sup>. The first face-to-face interviews started with the women telling the story of their labour, birth and initiation of breastfeeding. I encouraged the participants to speak about their experiences related to their antenatal intention to breastfeed exclusively as well as the quality of social supports that they had received before and after the birth related to their exclusive

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<sup>41</sup> Item 16. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>42</sup> Item 17. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>43</sup> Item 18. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>44</sup> Item 1. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

breastfeeding practice. Questions related to the issues and barriers that they faced were canvassed using open-ended questions in the one-to-one interview sessions. During the interviews, I clarified some of the questions in order to draw out more information about issues that the respondents encountered (Tong et al., 2007).

Four questions were added to the original first and second interview schedules after a meeting with my supervisors. These new questions were related to breastfeeding support from health professionals and male family members that were identified after conducting several interviews and initial thematic analysis of the qualitative data from the transcribed interviews. These questions are outlined as follows:

<b>Table 3.2.</b> Additional questions that were added to the original first and second interview schedules.
Do you think there is too much pressure from the government and health professionals to breastfeed?
Do you think there is enough information, advice or support for formula feeding babies?
What kinds of things did your male family members do that made you feel confident about breastfeeding?
Were you provided with any information about a lactation consultant by your midwife? If so, what kind of information was provided?

### **Informed consent, privacy and confidentiality**

The information sheet [see Appendix 5] that was approved by Massey University's Human Ethics Committee was sent by post or email to each of the research participants who met the inclusion criteria and agreed to participate in this research. I also answered any questions that they had prior to their participation. At the start of every face to face interview session, an overview of the study was given and the research information sheet discussed.

Participant privacy and confidentiality, as well as the possibility of refusing to participate in the research, were also discussed before signing the consent form [see Appendix 7].

All questionnaires, consent forms and anonymised transcriptions of the face to face interviews, as well as transcriptions of monthly audio-recorded telephone interviews, were kept in my secure office at Massey University inside a locked filing cabinet. All of the audio recording files are kept on a password-protected computer in my Massey University office and on my personal password-protected laptop at home. Furthermore, in this thesis, and in subsequent papers submitted to peer-reviewed journals, the confidentiality of all women who participated in this research has been considered. I gave a pseudonym to all participants in all written materials including papers that were submitted for publication. Identifying information including the name of the male partners, infants, midwives, lactation consultants, friends, workplaces and employers were eliminated from the transcripts. Only the researcher, the doctoral thesis supervisors and external transcriber had access to the raw interview transcripts. The researcher transcribed some of the audio-recorded files, while the digital recording files were transcribed by a third party who signed a transcriber's confidentiality agreement [see Appendix 13].

### **Potential harm to participants**

One of the concerns that was raised by the MUHEC was the possibility of a close relationship developing between the participants and the researcher who is also a non-practising midwife. Of particular concern was the nature of our discussions about the women's childbirth stories, breastfeeding, husband and family support that may make distinguishing personal confidence provided to a health professional from legitimate research

data difficult. This was solved by reiterating that I was there as a researcher (and not a midwife) and by maintaining the confidentiality of all information discussed in the face to face interview sessions as well as audio recorded telephone interviews. Transcriptions of the interviews were returned to all participants who had a chance to read and review the transcript, provide comments as well as any further feedback<sup>45</sup>. Once participants were happy with their transcripts they signed the authority for the release of transcripts [see Appendix 12].

### **Transcription accuracy**

Qualitative research has used transcribed audio or video recordings as data in addition to field notes since the 1960s (Hammersley, 2010). Advantages of recorded data include the accuracy of digital recordings as well as the ability to make anonymised data available for auditing purposes (Hammersley, 2010). In the current research, all the audio recorded files of interviews were transcribed verbatim, and the accuracy of the transcriptions was checked by the researcher. In order to increase familiarity with the participants' expressions and strengthen the accuracy of the analysis, I listened to the audio recorded files of the face to face interviews and read the transcripts several times.

### **Data analysis**

Data analysis is the most challenging and complicated part of a qualitative research project. Qualitative research needs to have a clear method of analysis that transforms the

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<sup>45</sup> Item 23. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

textual data into new knowledge in order to produce meaningful findings (Braun & Clarke, 2006, 2013). Qualitative research generates huge amounts of textual data in the form of interview transcripts. Therefore careful analysis of this information is often difficult, labour intensive and time-consuming. The value of data analysis in qualitative research depends on the experience and expertise of the researcher and it cannot be left to an unskilled and inexperienced person (Pope, Ziebland, & Mays, 2000).

In this current research after verbatim transcribing all the audio recorded interviews, in order to obtain an in-depth understanding of the research material, thematic analysis of the interview transcripts was completed using manual coding techniques by the researcher<sup>46</sup>. Interview material was interpreted using Aronson's (1995) four stages thematic analysis method.<sup>47</sup> Firstly, the data were collected in the form of interview transcripts by the researcher. Secondly, key direct quotes were identified,<sup>48</sup> and the researcher paraphrased common ideas. In the third stage, related patterns were combined into themes and the research supervisors then gave feedback on the key themes that emerged from the transcribed conversations. The fourth stage was making a trustworthy and reliable argument in regards to the selection of the themes for analysis and creating a storyline which would help the readers to realise the process, motivation and understanding of this research.

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<sup>46</sup> Item 24. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>47</sup> Item 9. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

<sup>48</sup> Item 24, 25, 26. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

Although Aronson (1995) recommends returning to the research participants and asking them for their feedback on the emerging major themes, I did not ask the research participants for validation of the findings. There were several reasons why I did not send the key findings to the women who contributed to this research. Firstly, I had returned transcripts of the face to face interviews to each participant; for some of them, there were two transcriptions from the first and second interviews to read through and give feedback, confirm and sign. Secondly, the monthly follow-up telephone calls enabled me to keep in touch with the participants and talk to them about emergent findings. Thirdly, since the participants were new mothers with demanding newborns, I decided that it was not fair to send the key emerging themes to them again for the feedback<sup>49</sup>. Barbour (2001) also identifies that while asking the respondents for feedback on the emerging themes enables validation of the research findings it can be “exploitative” and “distressing” for the participants if they need to read large amounts of textual data that would be time-consuming and challenging. Finally, the findings of the current research are presented through a social constructionist theoretical framework, and it may be beyond the expertise of some of the research participants to verify themes that were identified using this analytical approach.

Clarke and Braun (2013) have pointed out that thematic analysis is a useful method for conducting doctoral research analysis. They argue that if some scholars believe that thematic analysis is unsophisticated, it is because of a misunderstanding of thematic analysis. Thematic analysis is sometimes considered to be an atheoretical method of research.

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<sup>49</sup> Item 28. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items’ checklist [Appendix 15].

However, its flexibility means that it can be applied across a wide range of theoretical methods. For example, in the current research after thematic analysis of the data, multiple theories were applied to enable an integrated discussion of the finding themes. All these social constructionist theories focus on the importance of social relationships, social support, social interactions and social networks.

In chapter four it was identified that having an antenatal intention to breastfeed exclusively is the most important predictor of initiation and duration of breastfeeding. However, having an antenatal intention is not enough to predict exclusive breastfeeding at six months as many factors influence this behaviour. After thematic analysis of the data, the theory of planned behaviour (Ajzen, 1991), was applied to an evaluation of these influential factors and the theory extended to demonstrate that self-identity also plays a significant role in the prediction of prolonged duration of exclusive breastfeeding. Subjective norm is one of the major components of the theory of planned behaviour and refers to the importance of social relationships and social support from significant others. Researchers in sociology and psychology extended the theory of planned behaviour to include self-identity as an independent and important component of this theory (Fekadu & Kraft, 2001; Pierro, Mannetti, & Livi, 2003; Rise, Sheera & Hukkelberg, 2010; Sparks & Shepherd, 1992; Terry, Hogg & White, 1999). According to Burr (2015), self-identity is not limited to the individuals' beliefs and opinions, but it is socially constructed in the process of socialisation; the objective reality of the social worlds which they inhabit is internalised by individuals and their significant others who reconciled it and made it meaningful for them (Berger & Luckman, 1991). Therefore, the central finding of chapter four is that six months intentional

exclusive breastfeeding behaviour is socially constructed and shaped equally by behavioural beliefs, subjective norms, perceived behavioural control and self-identity.

Chapter five discussed the reasons for stopping exclusive breastfeeding between three and six months. There was limited literature nationally and internationally around this important time frame, which is a time that mothers may have difficulties sustaining their exclusive breastfeeding practice. Therefore, this chapter is the only chapter in this thesis that tends to be descriptive. However, social constructionism is considered an epistemological framework for the themes presented in this chapter through exploring the reasons for stopping exclusive breastfeeding earlier than six months that were not limited to the mother-infant dyad but linked to the mothers' social relationships, social support, social interactions and social networks.

Chapters six and seven of this thesis focus on breastfeeding support from nuclear and extended family members. After thematic analysis of the data the theory of stress, coping strategies and social support proposed by Thoits (1995), was used to interpret the findings presented in these two chapters. The finding of chapter six and seven identify the importance of strong social ties through forms of social support from significant others as well as social relationships and social interactions for sustaining six months exclusive breastfeeding.

Chapter eight of this thesis is dedicated to the quality of breastfeeding support from health professionals. After thematic analysis of the qualitative data, it was identified that a significant number of participants spoke about the pressure to breastfeed from within the New Zealand health system. Therefore, the central finding of chapter eight is an awareness of resistance to breastfeeding as a result of feeling pressured, guilty and/or being exposed to



negative judgements around formula feeding. Consequently, Foucault's theories of governmentality and bio-power (Foucault, 1972) were applied to interpret the findings related to the mothers' resistance to breastfeeding and surveillance or monitoring of the parents by health professionals who are employed by the government. Foucault's ideas about social control, perpetuated through discourses and practices that are legitimated by social institutions, as well as normalising practices which are linked to discourses that create and shape individual identities such as "a good mother is a breastfeeding mother" are explored in chapter eight.

In the last substantive chapter, chapter nine, the quality of breastfeeding support through social media is explored. This chapter is developed in response to a large number of participants who were recruited through the Facebook on-line breastfeeding support forum. During the data analysis, "Facebook.com" was identified as the most effective source of peer and professional support. Consequently, after indepth thematic analysis of the interview material relating to social media, Granovetter's (1973) theory about the "strength of weak ties" was applied as a framework for understanding informal breastfeeding support through Facebook friends. Weak ties created through on-line sites act like bridges that diffuse information related to breastfeeding and provide an effective kind of social support by creating a sense of community. In addition, social media is used extensively by research participants who immigrated to New Zealand or had family members who were geographically distant. These participants spoke about the emotional support provided by family members through Skype. Consequently, after thematic analysis, theories related to "landscapes of care" (Milligan & Wiles, 2010) were applied to understand the quality of breastfeeding support via Skype. Therefore, it is identified that the Internet and modern

technologies make it possible for a significant other who is geographically distant to provide support which is emotionally very close and effective.

Chapter ten, the conclusion chapter of this thesis, discusses how exclusive breastfeeding behaviour is socially constructed and outlines the central finding of this thesis. The concept of “embeddedness” developed by Granovetter (1985), supported the key finding of this thesis that a breastfeeding mother, or a pregnant woman, is an embedded individual in which her intention to breastfeed and her behaviour are influenced by her social networks. Additionally, the relational model of decision-making in midwifery care, proposed by Noseworthy, Phibbs, and Benn (2013), also supported the central finding of this research about the relational influences on the behaviour of six months exclusive breastfeeding (Figure 10.1, p.307). Therefore, the central finding of this thesis is that exclusive breastfeeding is a socially constructed behaviour influenced by actual and virtual social networks around the mother as well as the other relational influences such as the historical, geographic, socioeconomic and social contexts of the mother’s life.

### **Trustworthiness**

The main target of rigour in qualitative studies relates to the accurate presentation of the research participants’ narratives (Jeanfreau & Jack, 2010). In other words, trustworthiness indicates the truth value of the findings of qualitative research and describes the method of achieving an appropriate interpretation of the research participants’ perceptions and opinions (Jeanfreau & Jack, 2010). Guba and Lincoln (1981) point out that trustworthiness will be attained when the major findings of the qualitative research as closely as possible reflect the participants’ statements.

Other methods to ensure trustworthiness in this study include audio recorded interviews which were transcribed verbatim in a timely manner (Bird, 2005; Poland, 1995). Furthermore, all research participants were given a chance to review and approve their interview transcriptions or add further comments (Cooney, 2011). Word for word extracts from the interviews are used in the thesis to illustrate the identified themes as well as in subsequent publications<sup>50</sup>(Shenton, 2004). All the audio recorded files are identified by date and time and along with transcriptions and questionnaires will be kept for five years in each individual's file in my secure office at Massey University.

### **Credibility and fittingness**

Credibility involves the accuracy and authenticity of the description of the experiences represented in the research. A gauge of authenticity is when the research participants, and others who have been in a similar situation, recognise the experience as being similar to their own (Beck, 1993; Cooney, 2011). In qualitative research credibility measures the clarity and trustworthiness of the description of the phenomenon (Beck, 1993). In qualitative research fittingness testifies to how the results correspond with the understandings of the wider audience (Beck, 1993; Streubert, 2011). Fittingness also measures how well the findings fit into contexts that differ from the one in which they were generated (Guba & Lincoln, 1981).

Credibility was attained by using the research participants' experiences and stories to support the study and by giving them a chance to review and confirm their interview transcripts. Participant recruitment and inclusion criteria were also clearly stated, and all efforts were made to provide a sense of each of the research participants.

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<sup>50</sup> Item 29. The Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist [Appendix 15].

In addition, in 2017, two journal articles from this thesis have been published in peer-reviewed international journals in midwifery and breastfeeding specifically the Journal of Women and Birth (Impact Factor: 2.138)<sup>51</sup> and the Breastfeeding Review Journal (the official journal of Australian Breastfeeding Association)<sup>52</sup>. One oral conference presentation and one poster presentation resulting from the initial literature review were presented for feedback at the Conference of Lactation Consultants of Australia and New Zealand (LCANZ) in Sydney (2012). Two oral presentations about the importance of this research and the aims of this qualitative research were presented at the PhD school, Massey University, and at the School of Health and Social Services during the confirmation of my PhD. I had a lot of positive feedback from the audiences following my presentations which demonstrates the credibility and fittingness of the early stages of this qualitative research.

## **Auditability**

Auditability will be established by the reader; the reader should be able to follow the steps of the research from the research questions to data collection, through analysis, and presentation of the findings. The audit trail involves providing a step by step guide for interpretation and analysis of data using examples to illustrate. Sufficient detail should be that the reader is able to follow the researcher's thinking (Beck, 1993; Cooney, 2011). Auditability supports the detail of the research and enables the reader to follow the logical thinking of the researcher (Beck, 1993; Cooney, 2011). Auditability for this study has been

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<sup>51</sup> Alianmoghammad, N., Phibbs, S., & Benn, C. (2017). Resistance to breastfeeding: A Foucauldian analysis of breastfeeding support from health professionals. *Women and Birth*. In press.  
<https://doi.org/10.1016/j.wombi.2017.05.005>

<sup>52</sup> Alianmoghammad, N., Phibbs, S., & Benn, C. (2017). New Zealand women talk about breastfeeding support from male family members. *Breastfeeding Review*, 25(1), 35-44.

provided in this chapter through detailing the process of conducting, analysing and presenting this qualitative research project.

## **Safety**

Qualitative research considers physical and spiritual safety of the researcher and the participant during the conduct of research. The current research caused no physical harm. Moreover, I had feedback, in the form of comments from my research participants, who stated that they felt respected and safe to talk about their very personal and intimate relationships, feelings and beliefs.

When I emailed the research participants in order to update their home address to post a “thank you letter” and a \$20 gift card for acknowledging their participation in my research I had many encouraging and kind comments from them via text messages, phone calls and emails.

For example, Morgan who breastfed her son exclusively for the full six months, sent this email to me:

*Hi Narges, you're most welcome, I do hope the research project went well. I am still breastfeeding although my baby is now on solids [after six months], breast milk is his drink 4 or 5 times a day, sometimes it's more of a comfort thing than thirst I think! Thank you for the offer of the voucher. I do not expect that though as I was happy to help out. (Morgan)*

And also, Jocelin, Hailey and Ava sent their comments via emails:

*Best wishes for the continuation of your research. (Jocelin)*

*Hope the study has gone well (Hailey)*

*It was my pleasure! Thanks for having us as part of the research. (Ava)*

These comments increase the credibility and trustworthiness of the current research and show that the research participants felt safe to discuss their breastfeeding experiences with me.

## **Conclusion**

In this chapter, the epistemological and theoretical frameworks underpinning this research were discussed. The methodology, original research design and the alterations that occurred related to adding the second face to face interview for the participants who stopped exclusive breastfeeding before six months have been discussed. Details related to recruiting participants, collecting data, inclusion and exclusion criteria, as well as ethical considerations are outlined in this chapter. Furthermore, the process of thematic analysis of the qualitative data presented in this research and the application of different theories in each of the substantive chapters in order to illuminate the emergent themes were explained. The following chapter considers how antenatal intention to breastfeed impacts on postpartum infant feeding practices among the women who contributed to this study.

## ***Chapter 4: Antenatal Intention to Six Months Exclusive Breastfeeding***

### **Introduction**

This chapter explores the influence of antenatal intention on six months exclusive breastfeeding using thematic analysis of the data and the theory of planned behaviour to illuminate the findings. The theory of planned behaviour will be extended to include self-identity as a useful component that will enhance understanding of intention and the enactment of six months exclusive breastfeeding practice.

Research has identified that exclusive breastfeeding is an optimal method of infant feeding as it contains many health advantages for both mother and baby (Agunbiade & Ogunleye, 2012; Balogun et al., 2015; Behera & Kumar, 2015; Brownell, Howard, Lawrence, & Dozier, 2012; Cernadas et al., 2003; Lawrence, 2007). However, the rate of exclusive breastfeeding at six month is less than 40% across the world (Black et al., 2013) with most countries failing to meet the WHO recommendation for six months exclusive breastfeeding practice (WHO, 2015a).

There are many factors which impact on the initiation and duration of exclusive breastfeeding, one of the most significant factors is antenatal intention to engage in exclusive breastfeeding (Behera & Kumar, 2015; Bentley et al., 1999; Blyth et al., 2004; DiGirolamo, Thompson, Martorell, Fein, & Grummer-Strawn, 2005; Meedya, Fahy, & Kable, 2010). A

quantitative study conducted in the UK on 10,548 pregnant women after 32 weeks gestation (Donath & Amir, 2003), identified that having an antenatal intention to breastfeed significantly increased the incidence of the breastfeeding initiation rate to 90% of all women, and that about 70% of women who had an antenatal intention to breastfeed, sustained their breastfeeding until six months. They concluded that as they assessed a large population of participants they could confirm that maternal antenatal intention to breastfeed has a strong positive relationship with breastfeeding initiation and prolonged duration (Donath & Amir, 2003). Likewise, research on exclusive breastfeeding behaviour (Balogun et al., 2015), indicated that antenatal breastfeeding intention is the most influential factor on exclusive breastfeeding duration, a lower rate of early introduction of solids or formula and early cessation of exclusive breastfeeding. This chapter considers the role of antenatal intention on postpartum breastfeeding behaviour.

## **Intention**

Human common-sense psychology identifies that all behaviours are intentional; people do things based on their mental state and previous actions, however intention does not guarantee action (Bratman, 1984). According to Davidson (1980), who developed the “*desire-belief model*”, an intentional action is an action that is related to a person’s desires and beliefs. When someone acts intentionally it means that they have a strong belief in that course of action (Bratman, 1984). Drawing upon ‘common sense psychology’ Bratman (1984) suggests that desires, beliefs and intentions are the fundamental elements of an intentional action. He explained that there are two types of intentions, “*present-directed intentions*” and “*future-directed intentions*”. In order to reach a complex goal an individual



should develop a plan that it will be achieved by future-directed intention otherwise they would not achieve their goal. While all intentional actions have an intention to do, there is a significant difference between prior intentions to do or “*future-directed intentions*”, and present intentions to do or “*present-directed intentions*” (Searle, 2010). For instance, breastfeeding is an intentional behaviour that sometimes happens in an unplanned way that is similar to a “*present-directed intention*” in some women who had never intended to breastfeed prior to the birth of their babies. In this case, the midwife may put the baby on the mother’s chest immediately after the birth and the mother may spontaneously initiate breastfeeding for her newborn baby. This breastfeeding practice may be characterised as present-directed intentional breastfeeding behaviour in that the mother had not expressed a prior intention to breastfeed. In this current research participants had strong prior intention to exclusively breastfeed when they were pregnant, therefore this chapter focuses upon intentional breastfeeding behaviour with prior intention or future directed intention to breastfeed exclusively.

Future directed intention can play an important role in both individual and social psychology, and also it shows the individual’s commitment to that action (Bratman, 1992). However, Ajzen (1991) has argued that measures of an intention before an action need to consider external factors that influence intentional behaviour such as new knowledge or barriers that the individual did not consider previously, therefore just having an intention is not enough for predicting a related action (Ajzen, 1991). As an example, almost all of the participants in this current research stated that they had a prior antenatal intention to breastfeed exclusively for the full six months, some of the participants could not sustain this goal due to unforeseen obstacles such as a sick baby, sore nipples and not knowing about the

reality of exclusive breastfeeding that eventually prevented them from breastfeeding exclusively for six months.

Research has shown that social cultural, economic and psychological factors may impact upon a women's intention to breastfeed (Swanson & Power, 2005). If breastfeeding is considered as an intentional behaviour the intention to perform this behaviour can be influenced positively or negatively by the child-bearing woman's own opinions, her family culture, her knowledge and abilities as well as by her significant others' thoughts and attitudes to breastfeeding. For example, breastfeeding in public or even in front of the family members may not be an accepted norm in some cultures which will influence ideas about breastfeeding and breastfeeding rates (Bonia et al., 2013; Bueno-Gutierrez & Chantry, 2015; Shortt, McGorrian, & Kelleher, 2013; Ware, Webb, & Levy, 2014).

The theory of reasoned action (Humphreys, Thompson, & Miner, 1998; Kloeblen, Thompson, & Miner, 1999; Quarles, Williams, Hoyle, Brimeyer, & Williams, 1994) and the theory of planned behaviour (Behera & Kumar, 2015; Dodgson, Henly, Duckett, & Tarrant, 2003; Duckett et al., 1998; Giles et al., 2007; Ismail, Muda, & Bakar, 2013; Lawton, Ashley, Dawson, Waiblinger, & Conner, 2012; McMillan et al., 2009; Swanson & Power, 2005; Wambach, 1997) will be drawn upon to explain intentional behaviours. I will discuss both of these theories and the relevant research that has applied the theory of planned behaviour as a framework for evaluating the relationship between intention to breastfeed and the actioning of breastfeeding practice.

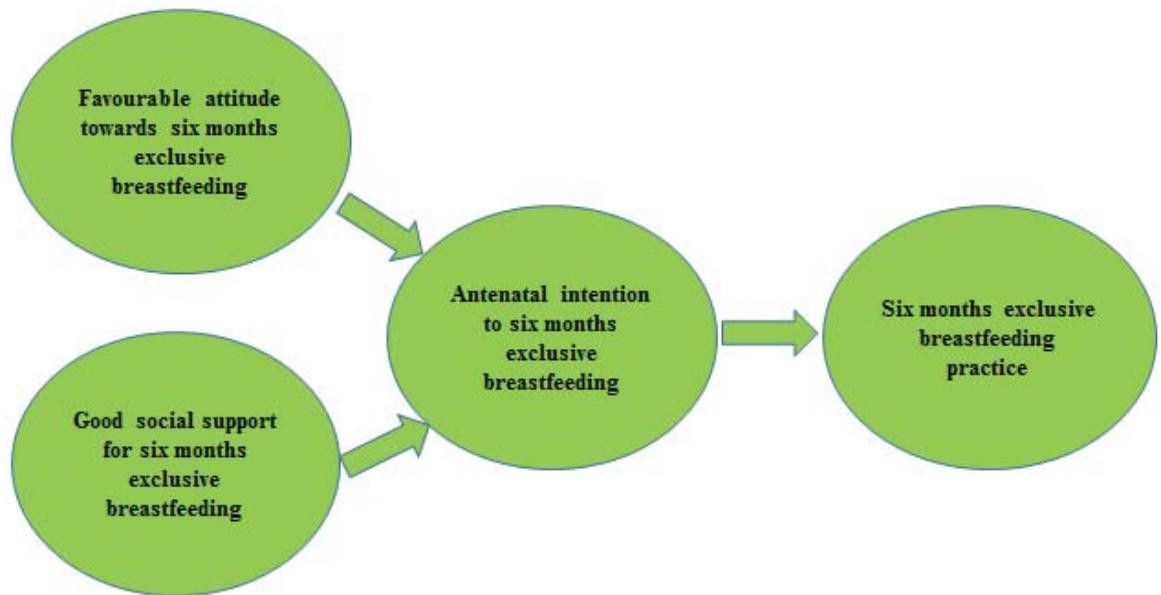
## **Theory of reasoned action**

The theory of reasoned action argues that there is always an intention to do every action, and that there is a relationship between expectation, intention and action. If an individual has a robust intention to act, then it is highly likely that the action will occur (Ajzen & Madden, 1986). According to the theory of reasoned action personal factors and social factors influence intentional acts (Ajzen & Madden, 1986). This contextual behavioural theory, for example, suggests that personal factors related to the mother's attitudes towards breastfeeding and social factors related to family support will have an influence on intentional exclusive breastfeeding behaviour. If a mother has a strong antenatal intention to breastfeed exclusively, the theory of reasoned action suggests that she is more likely to attempt exclusive breastfeeding (Humphreys et al., 1998). However, research suggests that she will be less successful without a good social support from her partner<sup>53</sup> or her mother<sup>54</sup> (Grassley et al., 2012; Humphreys et al., 1998; Maycock et al., 2013). Ajzen and Madden (1986), have pointed out that both personal and social factors are important and they are essential for the performance of an intentional behaviour. The following figure, based on the theory of reasoned action, represents the mother's favourable attitude towards six months exclusive breastfeeding plus having good social support as two important factors for intention to and the action of six months exclusive breastfeeding behaviour.

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<sup>53</sup> Male partner and male family members' support will be discussed in chapter seven.

<sup>54</sup> Grandmother and female family members' support will be discussed in chapter six.



**Figure 4. 1:** Theory of reasoned action for exclusive breastfeeding

### **Theory of planned behaviour**

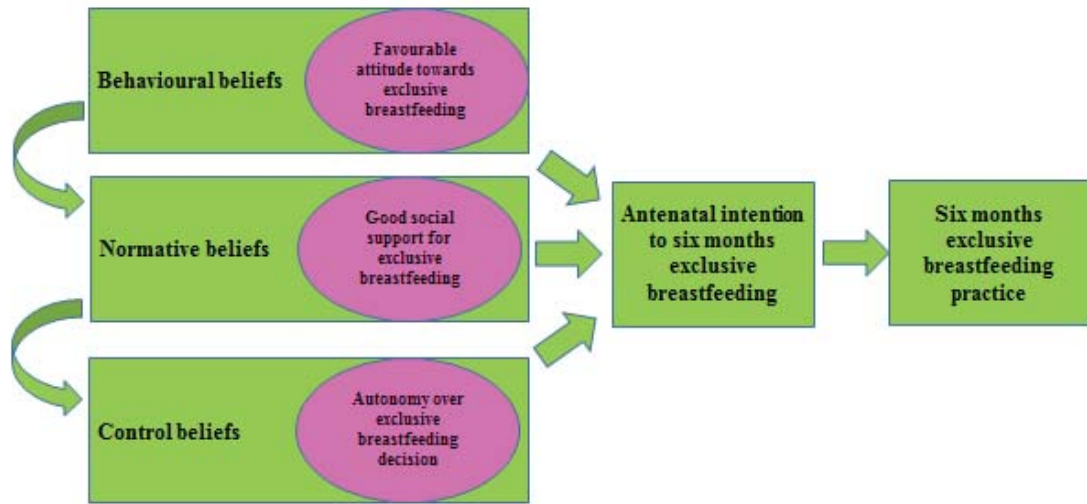
The theory of planned behaviour is the most common behavioural theory used in studies on the importance of maternal intention to breastfeed (Behera & Kumar, 2015; Dodgson et al., 2003; Giles et al., 2007; Ismail et al., 2013; Lewallen et al., 2006; Swanson & Power, 2005). According to the theory of planned behaviour, intention to perform is a key determinant of behaviour as it is strongly linked to the decision to perform that particular behaviour. Factors that influence an individual's intention include behavioural beliefs, normative beliefs and perceived behavioural control (Ajzen, 2011).

Recent research on intentional behaviours, including infant feeding, identified that intentional behaviours can be predicted based on the theory of planned behaviour (Natan,

Wiener, & Haim, 2015; McEachan, Sutton, & Myers, 2010). In the example of exclusive breastfeeding behavioural beliefs about the health benefits of exclusive breastfeeding for the baby may prompt a mother to evaluate exclusive breastfeeding positively. In this example behavioural attitudes directly affect behavioural intention to breastfeed exclusively (Ajzen, 1991; Natan et al., 2015).

Normative beliefs relate to a mother's perceptions of social influence or social support for exclusive breastfeeding such as a significant other's advice. The normative beliefs within the family or community in which the mother is located may influence her subjective norms and therefore decision to breastfeed her baby exclusively (Ajzen, 1991; Natan et al., 2015).

Control beliefs relate to the factors that support or hinder exclusive breastfeeding (Ajzen, 1991; Natan et al., 2015). Perceived behavioural control involves the ability to evaluate the advantages and disadvantages of exclusive breastfeeding, the outcome of which can directly affect intentional behaviour (Ajzen, 1991; Natan et al., 2015). Perceived behavioural control also relates to the extent that an individual has control over their decision to perform the behaviour and the extent to which a decision is affected by the control of others (Ismail et al., 2013). The following diagram represents that having a favourable attitude to breastfeed exclusively as well as good social supports are not adequate for predicting intention to and the action of six months exclusive breastfeeding. The theory of planned behaviour indicates that mothers need to have complete autonomy over their decision to breastfeed exclusively for the full six months as well.



**Figure 4. 2:** Theory of planned behaviour for exclusive breastfeeding

Research on maternal infant feeding behaviour has shown that in both behavioural theories of reasoned action and planned behaviour the individual's intention status is central to the performance of this behaviour (Ajzen, 2002; Ajzen & Madden, 1986). The relationship between the theory of planned behaviour's predictor variables and breastfeeding intention, initiation and duration has been demonstrated in many studies (Avery, Duckett, Dodgson, Savik, & Henly, 1998; DiGirolamo, Thompson, Martorell, Fein, & Grummer-Strawn, 2005; Dodgson et al., 2003; Swanson & Power, 2005). In order to evaluate the efficiency of planned behaviour theory for predicting intentional behaviours, Godin and Kok (1996), conducted a systematic review of all peer reviewed publications from 1985 to 1996 in the field of clinical medicine as well as health and social sciences. The evaluation found that the theory of planned behaviour closely mapped the description of intention to enact a behaviour. The

systematic review indicated that intention was an important predictor of the behaviours; however, in half of these studies intention plus perceived behavioural control were significantly responsible for the prediction of the behaviours. Godin and Kok (1996) concluded that, while the theory of planned behaviour is suitable for explaining the desire to perform an intentional behaviour, the efficiency of this theory varies between the behaviours (Godin & Kok, 1996). More recent research has also identified that having current comprehensive knowledge about a behaviour will increase the possibility of the performance. Therefore, they recommended that health care professionals may promote the rate of a desired behaviour by improving the individuals' knowledge of the benefits of that behaviour (Dumitrescu, Wagle, Dogaru, & Manolescu, 2011).

In several studies conducted in developed countries, researchers found that there is significant relationship amongst the antenatal breastfeeding intention, the breastfeeding behaviour and the prolonged duration of breastfeeding (Bourgoin et al., 1996; Donath & Amir, 2003; Forster, McLachlan, & Lumley, 2006). In research on breastfeeding behaviour, researchers used both the theories of reasoned action and planned behaviour to evaluate influential factors that are related to breastfeeding behaviour (DiGirolamo et al., 2005; Dodgson et al., 2003; Humphreys et al., 1998); they found that breastfeeding intention was positively related to breastfeeding initiation and duration. While antenatal breastfeeding intention is one predictor of the breastfeeding initiation and prolonged duration (DiGirolamo et al., 2005; Dodgson et al., 2003; Meedya, Fahy, & Kable, 2010), other research shows that initial breastfeeding experience can change the outcome of the intentional breastfeeding behaviour (DiGirolamo et al., 2005; Perrine, Scanlon, Li, Odom, & Grummer-Strawn, 2012).

It is important to note that while the majority of mothers in developed nations know about the health benefits of breastfeeding, and the WHO recommendation for six months exclusive breastfeeding, they do not follow this recommendation. One of the most important factors that negatively influences exclusive breastfeeding rates is a lack of intention to do this behaviour (Ismail et al., 2013). Research has also shown that while antenatal breastfeeding intention is the most important predictor of initiation and duration of exclusive breastfeeding, it increases the duration of partial breastfeeding as well (Bai, Middlestadt, Peng, & Fly, 2010; Kronborg & Vaeth, 2004; Wilhelm, Rodehorst, Stepans, Hertzog, & Berens, 2008).

In summary, existing international research has identified that there are many factors that influence exclusive breastfeeding for six months however maternal antenatal intention to exclusive breastfeed is the most influential factor that positively impacts on the initiation and prolonged duration of exclusive breastfeeding. However, if the six months exclusive breastfeeding practice is considered as an intentional behaviour, based on the theory of planned behaviour there are some influential variables such as behavioural beliefs, subjective norms and perceived behavioural control that can impact on intention, initiation and duration of this exclusive breastfeeding behaviour. Therefore, in the next section, I will discuss the findings of the current research through applying the theory of planned behaviour to a thematic analysis of the interview material.

## **Findings**

The theory of planned behaviour suggests that, people who have strong intention to do a behaviour are highly likely to perform that behaviour (Ajzen, 1991). Of the women who participated in this doctoral research (29/30) had an intention to breastfeed their babies



exclusively for six months when they were pregnant. Half of the women (15/30) exclusively breastfed their babies for the full six months, six of the women breastfed their babies exclusively for more than five months and four breastfed exclusively for four months. Most women who did not maintain exclusive breastfeeding for six months introduced a small amount of solids, but continued to consider that breastfeeding was still the main source of nutrition for their babies<sup>55</sup>.

New Zealand statistics as well as international data also identify that the usual duration of exclusive breastfeeding is around four months in highly motivated mothers (Balogun et al., 2015; Kruse et al., 2006; Ministry of Health, 2009; WHO, 2003). Recent research on exclusive breastfeeding (Balogun et al., 2015), found that antenatal exclusive breastfeeding intention is a robust predictor of exclusive breastfeeding until three months postpartum. As I mentioned earlier, in this study just one mother had an antenatal intention to feed her baby with both formula and breast milk and she went on to mix feed her baby after the birth. All of the remaining mothers in the current research who answered the short antenatal questionnaire had antenatal intention to continue exclusive breastfeeding for six months.

In the current research, I asked the women about the key factors that influenced their decision to breastfeed exclusively until six months. After thematic analysis of the verbatim transcripts of the interviews, the emergent themes were illuminated with the theory of planned behaviour components such as behavioural beliefs, subjective norms and perceived behavioural control. The interview transcripts identified that the women who participated in this research had autonomy over their decision, a strong belief in the efficacy of exclusive

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<sup>55</sup> The circumstances that led participants to introduce solids earlier than six months will be discussed in the next chapter.

breastfeeding until six months and good social support. As suggested within the theory of planned behaviour, socio-demographic variables such as maternal age, education and marital status are influential factors on maternal attitudes towards breastfeeding, as well as on intention, initiation and duration of breastfeeding behaviour (Avery et al., 1998). Most participants in this doctoral study had socio-demographic factors that are associated with high rates of exclusive breastfeeding including being highly educated (24 out of 30 completed a degree at university), employees on paid maternity leave (20/30), stay at home mothers more than six months (29/30), married or living with a male partner (30/30), older than 25 years old (28/30), had a planned pregnancy (22/30), a midwife as their lead maternity carer (29/30), a vaginal birth (25/30), and had a successful experience of previous breastfeeding (21/30).

The following sections of the chapter consider how behavioural beliefs, subjective norms and perceptions about autonomy shape breastfeeding behaviour. Factors that reflect the mothers' behavioural beliefs in the current research are "health benefits for the baby", "easier than bottle feeding", "previous successful experience of breastfeeding", "natural method of feeding", "breast milk is cheaper than formula". Factors that impacted upon subjective norms were the influence of a male partner, maternal grandmother, other family members, midwife and friends. Most participants in this research had a high degree of perceived behavioural control as they indicated that they had autonomy over their intention to exclusive breastfeed their babies. The next section presents some of the behavioural beliefs around infant feeding articulated by women who participated in this research.

## **Theme 1. Behavioural beliefs: positive attitude towards exclusive breastfeeding**

One of the most influential factors on the mother's intention to practise exclusive breastfeeding is the sets of beliefs that underpin a behaviour. There are some intrinsic and extrinsic factors that reflect the mothers' behavioural beliefs related to exclusive breastfeeding. In the current research all the research participants talked about having a positive attitude towards breastfeeding. All of the behavioural beliefs mentioned by the participants in my research were similar to the findings in other studies conducted in the USA, Africa and Asia ( Bai et al., 2010; Ismail et al., 2013; Naanyu, 2008; Swanson and Power, 2005). Perceptions of breastfeeding as a natural method of infant feeding, the health benefits of breastfeeding for the mother and baby, the financial benefits of breastfeeding, and difficulties preparing formula, for example, were reported by Swanson and Power (2005) as the main reasons for mothers choosing to breastfeed their babies.

Olivia, who breastfed exclusively for the full six months spoke favourably about the health benefits of breastfeeding for the baby labelling breast milk as "liquid gold". She also recounted the other advantages of breastfeeding such as its naturalness, ease and availability.

*Probably because it's just what I do and I don't know anything else. To me it's just so natural, it's the way it is, it's the liquid gold and it's everything to a baby, so that is a huge reason. It's easy, it's always there - available. (Olivia, March 2014)*

Olivia's enthusiastic support for breastfeeding is consistent with research which shows that mothers who have a good level of knowledge about the health benefits of breastfeeding compared to formula feeding are more likely to plan to breastfeed their babies (Alexy & Martin, 1994; Khoury et al., 2005; Meyerink & Marquis, 2002; Wambach, 1997).

Both Ashley and Madelyn also mentioned that their educational background was the key influence on their decision to exclusively breastfeed their babies.

*I kind of have a bit of educational background in it as well, so I know that it's good for baby and that's probably always influenced my decision just 'cos I know that it's the best, a really good option for baby. (Ashley, February 2014)*

*I think the key thing from my point of view was my existing knowledge about breastfeeding, which has come from multiple sources including my [educational background]. (Madelyn, October 2013)*

Madelyn returned to work shortly after the birth of her son and continued to breastfeed exclusively for more than five months. After five months Madelyn started a small amount of solids while continuing breastfeeding as the main source of nutrition for her son.

Kate was another participant who exclusively breastfed her baby for the full six months. She identified that when she was pregnant the main factor that influenced her decision to breastfeed exclusively for six months was a recent contaminated infant formula scandal. This scandal confirmed her belief that breastfeeding is the only natural and safe method of infant feeding.

*Just it's a natural thing, and well, I don't want to pay for formula as well [laughs], and also like you just see in the news about Fonterra and formula scares and things, and it was also why would I ever do that? So it was quite an easy decision to exclusively breastfeed. (Kate, January 2014)*

In 2013, the New Zealand company “Fonterra”, which is one of the largest dairy companies in the world, reported the presence of botulism in infant formula exported to countries such as China, Malaysia and Thailand (Mullany, 2013). It is notable that the consumption of even the small amount of botulism can cause severe poisoning and fatalities. China was the largest market for the New Zealand infant formula which was imported due to

the parents' concerns about the safety of Chinese infant formula (Mullany, 2013). The 2013 Fonterra incident was preceded by a 2008 contaminated infant formula incident that also involved a Chinese company in which Fonterra was a shareholder. In 2008, in China six babies died as a result of formula contaminated by melamine and at least 300,000 other Chinese children became sick (BBC, 2010). In the past melamine was used as a component in the process of making plastics, fertilisers and concrete. In the melamine scandal this product was added to watered-down milk in order to show a fake high protein content. When this milk was powdered and used to make infant formula it caused renal damage and kidney failure in a small number of babies (BBC, 2010).

Victoria and Abigail who exclusively breastfed their babies for five and four months respectively, also spoke about the health benefit of breastfeeding for the baby. They said that they chose exclusive breastfeeding as the best method of infant feeding due to its health benefits for the baby alongside other advantages. For example, both of them claimed that in comparison with bottle feeding, breastfeeding is much more practical method of infant feeding.

*I think probably the main one was how good it is for them, and just all the information about all the antibodies and all that kind of thing. But I think a very close second is probably how cheap and convenient it is. You don't have to muck around with bottles or buy formula, everywhere you go you've got your breasts with you, you don't have to take anything. But the main reason is definitely the health one, but just the practicalities of it are much easier than formula feeding. (Victoria, February 2014)*

*Probably like just common understanding that it's better for the baby and gives them more nutrients and stuff like that and immunity. And it's just easier than using a bottle definitely at the beginning - I mean not having to heat a bottle and do all that sort of stuff just right there especially when they're demand feeding and sometimes quite regularly. (Abigail, October 2013)*

Zoey and Nicole, identified the health benefits of breastfeeding for their babies as the main reason for exclusively breastfeeding their babies for six months. They also mentioned a range of other advantages of breastfeeding like naturalness, ease, and cost as well as the health and appearance benefits for the mother such as losing pre-pregnancy weight.

*Probably the health benefits - yeah from an issue of health - and yeah so I think it has a lot of health benefits for the baby. But also well for me in losing weight and that kind of thing - but yeah definitely the health benefits for her [baby]. Also I think it's just a lot easier than – yeah the main thing would be that it's good for the baby. Yeah and then probably secondary to that it's a lot easier than having to muck around with formula and cheaper as well you know? [Laughs]. (Zoey, December 2013)*

*To me, it's the most natural thing, and the biggest thing is the allergy side of it. Yeah, it's just a natural thing, but I was open to if I couldn't then I'd have to look into other options. But it was just the most natural thing. (Nicole, May 2014)*

The influential factors related to behavioural beliefs that are demonstrated by many studies are having experience of successful exclusive breastfeeding, being breastfed as a child, having friends or family members who are breastfeeding, level of education and being familiar with the health benefits of exclusive breastfeeding for the baby (Natan et al., 2015; Chung, Kim, & Nam, 2008; Scott, Binns, Oddy, & Graham, 2006; Swanson & Power, 2005).

Maya, Mackenzie and Sydney spoke about how their successful experience of breastfeeding with older children was the main reason for their antenatal intention to breastfeed exclusively again:

*The fact that, it was very successful with my son, it was the main reason that I want to do with her, I found it quite easy with my son. (Maya, October 2013)*

*I just know it's best to breastfeed the baby and if I can do it, which I obviously have been able to with all three of my children, why not? And I don't want to pay for formula if I can breastfeed. (Mackenzie, June 2014)*

*I like the whole bonding side of it which is really nice. Experiencing that with my son as well the first time you realise it is a very close thing that only you can do for your baby. And you just feel that you know you're giving them the best and it's perfect for them and you want that for your baby if you can. (Sydney, March 2014)*

As the current research participants mentioned in above interview extracts, having breastfeeding experience was a positive influence on the mother's behavioural beliefs. Therefore, mothers who do not have experience of breastfeeding may face challenges during the difficult time of establishing breastfeeding. Likewise, a qualitative study in the Netherlands (Oosterhoff, Hutter, & Haisma, 2014), used the theory of planned behaviour to investigate why first time-mothers who had a strong antenatal intention to breastfeed, did not achieve this goal after the birth of their babies. They found that as their research participants were the first-time mothers, the lack of breastfeeding experience was the most influential factor that negatively interfered with their intention to breastfeed their babies.

In the current study a first-time mother, Brianna, who exclusively breastfed her baby for more than five months spoke about her passion about breastfeeding, at the time of the interview she was a full time employee on the paid maternity leave. Brianna was determined to breastfeed exclusively because most of her friends had not succeeded.

*Probably talking to friends I think would be because a lot of the people that I know, particularly at work, didn't breastfeed at all, and actually hearing that they didn't made me want to more and made me quite determined to because I knew that it wasn't as common probably as I think that it should be. Yeah I feel like hearing about people who it didn't happen for made me really want to do everything I could to make it work for me. (Brianna, February 2014)*

Brianna's discussion of her motivation and confidence is consistent with the findings of an Australian study about the impact of psychosocial factors on exclusive breastfeeding (de

Jager et al., 2015). The researchers examined psychological variables including maternal self-efficacy, body attitude, psychological adjustment, attitude towards pregnancy, intention, motivation and confidence with exclusive breastfeeding using a wide range of psychometric tools. The researchers found factors that influenced the six months exclusive postpartum behaviour were maternal breastfeeding self-efficacy, confidence to sustain breastfeeding until six months postpartum, psychological adjustment to motherhood and feeling obese. They suggested that in order to improve women's confidence with exclusive breastfeeding, social support during pregnancy combined with individualised education about exclusive breastfeeding should be initiated.

Participants in this research identified the health benefits, naturalness, convenience, cost, prior knowledge and previous successful breastfeeding experiences as key factors that supported the intention, initiation and prolonged duration of exclusive breastfeeding. As a favourable attitude towards exclusive breastfeeding influences breastfeeding behaviour, in order to improve exclusive breastfeeding rates it is important to increase the mothers' knowledge of the economic and health benefits of breastfeeding alongside other advantages such as convenience compared to formula feeding.

## **Theme 2. Subjective norms: normalising breastfeeding by significant others**

In the theory of planned behaviour, subjective norms refer to the perceived social pressure that influences the individual to perform or not to perform a behaviour (Ajzen, 1991). The antenatal intention to exclusively breastfeed can also be affected by cultural acceptability. If a behaviour is normalised or perceived as a “bad thing” or a “cultural taboo”, then this may influence the expression of that behaviour. The theory of planned behaviour (Ajzen, 1991),



suggests that if a behavioural practices, such as breastfeeding, are a concern then it is important to evaluate the influence of injunctive social norms on that behaviour. Injunctive social norms are defined as the behaviours which are perceived as being approved of by other people in the wider society, these social norms have the power to influence intention, initiation and duration of exclusive breastfeeding, in a given society.

Research has shown the significant influence of social referents such as the husband, maternal grandmother, midwife, other family members and friends on the maternal intention to breastfeed (Adlina, Narimah, Hakimi, & Mazlin, 2006; Agunbiade & Ogunleye, 2012; Almroth et al., 2000; Arora et al., 2000b; Arts et al., 2010; Februhartanty, Bardosono, & Septiari, 2006; Fjeld et al., 2008; Ismail et al., 2013). Swanson and Power (2005), described the subjective norms related to the breastfeeding practice as “normative beliefs” that can be measured by recording the level of agreement or disagreement with the breastfeeding opinions of five social referents taken from the woman’s social milieu such as the woman’s partner, her own mother, her intimate friends, midwife and other people.

The normal method of infant feeding in Malaysia is mixed feeding or exclusive formula feeding (Adlina et al., 2006). In two studies in Malaysia (Adlina et al., 2006; Ismail et al., 2013) the researchers applied the theory of the planned behaviour to evaluate the association between antenatal intention and the performance of exclusive breastfeeding. While the mothers had strong antenatal intention to exclusively breastfeed, this intention did not translate into action. Their decision to stop exclusive breastfeeding was influenced by the imposition of injunctive normative beliefs. Significant others such as the husband, maternal grandmother, midwife and mother-in-law discouraged the new mothers from exclusively breastfeeding their babies (Adlina et al., 2006; Ismail et al., 2013).

A study conducted in Jakarta (Februhartanty et al., 2006), identified that the male partner<sup>56</sup> or husband was the most important referent who advised the mother about exclusive breastfeeding before and after birth. In a study conducted in the USA (Arora et al., 2000b), researchers found that significant others including the husband, maternal grandmother<sup>57</sup>, other family members and friends were the main people who encouraged mothers to formula feed the baby. A lack of current knowledge about the benefits of exclusive breastfeeding in the significant others' opinions about infant feeding can be a major obstacle for the new mother who intends to breastfeed her baby exclusively (Agunbiade & Ogunleye, 2012; Almroth et al., 2000; Arora et al., 2000b; Arts et al., 2010).

In a study of mothers who were younger than 25 years old and had an antenatal intention to breastfeed their babies (Greenwood & Littlejohn, 2002), the researchers asked those mothers to participate in a comprehensive support programme. The program offered those young mothers prenatal education, counselling and housing support. While the researchers had an expectation that this group of younger mothers would have a shorter duration of breastfeeding, they had prolonged duration of breastfeeding due to the support program that they had during their pregnancy.

In a Scottish study (Swanson & Power, 2005), the theory of planned behaviour was applied to assess the influence of the new mothers' behavioural beliefs and subjective norms on their intention to breastfeed. They found that subjective norms were the most influential factor on initiation and duration of breastfeeding. The breastfeeding mothers reported that

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<sup>56</sup> Male partner and male family members' support will be discussed in chapter seven.

<sup>57</sup> Grandmother and female family members' support will be discussed in chapter six.

their close social referents offered them formula; however, their partners and midwife were the most significant source of support for their breastfeeding until six weeks after birth. The researchers found that the new mothers' perceptions of subjective norms would favour their selected method of infant feeding. For example, the breastfeeding mothers perceived more social pressure to breastfeed, while the formula feeding mothers claimed that they experienced more social pressure to bottle feed (Swanson & Power, 2005).

The influence of subjective norms or social pressure on the mother's intention to breastfeed is heightened for first time mothers who do not have any previous experience of infant feeding as they may rely on the opinion of people who are around them for selecting the best method for infant feeding. First time mothers may also lack confidence in their decision to choose breastfeeding or to reject formula feeding (Swanson & Power, 2005). Therefore, subjective norms play an important role in supporting mothers who have no previous experience of breastfeeding (Cialdini, Reno, & Kallgren, 1990; Swanson & Power, 2005).

In the current research, Addison who exclusively breastfed her baby more than five months talked about how her family normalised breastfeeding to the extent that when she was pregnant for the first time she did not know that formula feeding could be an option.

*Probably my family, I think – yeah – because my mum breastfed all of her kids I suppose I just assumed that's what I would do yeah. I didn't realise when I had my first son that women didn't breastfeed. I suppose I was a little bit naïve. Because I hadn't had children I didn't realise that you could use bottles and formula and yeah so I just – yeah I assumed that everybody would start breastfeeding and that if they switched it was only because yeah they had to go to work or put the child into day care and they could no longer feed them. (Addison, February 2014)*

Lucy who exclusively breastfed her baby for the full six months spoke about her mother who breastfed all of her four children including Lucy. She talked about her sister who educated her about breastfeeding indirectly by breastfeeding in front of her and showing her that breastfeeding is very easy to do. Lucy suggested that if her family members formula fed their babies, and formula feeding was a normal method of infant feeding in her family environment rather than breastfeeding, then instead of having a stated intention to exclusively breastfeed for six months she may have intended to formula feed her baby.

*I knew my mum had done it with all four of us kids, my sister – she had a couple of kids by the time I had my first and she breastfed and made it look easy so I just – that’s what you do and yeah. I guess if we’d all been bottle-fed and stuff like that or formula I would have thought that was normal as well and maybe had gone that way, but because I’d seen breastfeeding around and that’s normal to me it was the way I wanted to go. (Lucy, April 2014)*

Charlotte, who exclusively breastfed her baby for the whole six months talked about her mother, partner and her partner’s family members who helped form her intention to breastfeed exclusively. Charlotte regarded breastfeeding as a way to honour and remember her mother who had passed away when she was a child. She also spoke how her friends and educational background influenced her decision to exclusively breastfeed her baby as well.

*Probably my mother even though she’s not here [her mother passed away] was really strong to have breastfeeding and she just was into natural things – yeah so she would have been really strong - and my partner and his family I suppose. But also I think maybe all of my friends – I can’t think of any who haven’t breastfed and they’ve all talked about how wonderful it is. It’s something we studied at Maori Studies when I was a student as well – songs and things that talked about breastfeeding and special relationships that you have with your child. But I think my mother would be the primary influence. (Charlotte, February 2014)*

It is notable that most research participants in this current research were breastfed as a child which influenced individual attitudes towards breastfeeding. A systematic review

(Manno, Macdonald, & Knight, 2015) examined the relationship between breastfeeding behaviour in one generation and the intention, initiation and the duration of breastfeeding in the next generation. It showed the strong evidence for intergenerational continuity of breastfeeding practice, that having been breastfed as a child significantly related to the breastfeeding intention, initiation and duration of breastfeeding in the next generation (Manno et al., 2015). Having both sources of formal and informal support for breastfeeding from significant others was important and encouraged the maintenance of breastfeeding over an extended period of time. Therefore, health education around breastfeeding should target both primary and secondary social ties to encourage the prolonged duration of breastfeeding (Swanson & Power, 2005).

Hailey was a research participant in this study who had an antenatal intention to exclusively breastfeed her baby for six months. Following the birth of her baby Hailey breastfed exclusively until three months when breastfeeding was interrupted for 12 days due to a medical condition that affected her baby. Once her baby's health improved, Hailey restarted fully breastfeeding until six months. Hailey had a lot of problems with breastfeeding because her baby was dairy intolerant and she had to remove all dairy products from her diet in order to produce dairy free breast milk for her baby. Although she encountered unforeseen barriers to breastfeeding after birth, Hailey was determined to initiate and sustain exclusive breastfeeding for her sick baby. She talked about the crucial support that she had from a friend who had successfully breastfed. She could not understand why some mothers gave up breastfeeding early when they were faced with a few problems.

*To be honest, probably my friend who's been there and done it, yeah. Just that it is possible if I tried really hard. Like, it's not easy, but if I just keep trying even when it's hard it'll work out and then you'll be pleased that you've pushed through that hard part. That it's hard for a bit and then it becomes easy. And I think that is the case, that's what it's been like for me. Like, it was hard and I could see where people could just give up when it got a little bit hard, and then if you just keep trying it usually it gets better. (Hailey, February 2014)*

In research on exclusive breastfeeding using the planned behaviour theory (Ismail et al., 2013), the importance of significant others on the mother's intention to breastfeed exclusively was identified. It was recommended that for the promotion and support of exclusive breastfeeding behaviour significant others such as male partners and both maternal and paternal grandmothers should be encouraged to attend, and be included in, exclusive breastfeeding advocacy programs. Therefore, the information regarding exclusive breastfeeding support should be available in the community. They also suggested that up-to-date knowledge of health professionals related to exclusive breastfeeding should be promoted and that education related to exclusive breastfeeding should be individualised for each mother taking into account their socio-demographic characteristics and circumstances during the first six months after birth. For example, including additional information around the expressing and storing of breast milk for working mothers (Ismail et al., 2013).

It is demonstrated in several studies that women who practise breastfeeding place a greater emphasis on the influence of social supports on their intention to breastfeed compared to formula feeding mothers (Wambach, 1997). Khoury et al. (2005) applied the theory of planned behaviour to examine the relationship between intention and initiation of breastfeeding in a group of low-income mothers in the USA. They evaluated the influence of subjective norms and found that support from lactation consultants and hospital midwives was significantly related to initiation of breastfeeding in this group of mothers. Similarly, the

importance of social support in initiation and prolonged duration of intentional breastfeeding has been established in numerous studies with a positive benefit being observed in groups of mothers who are from socio-economic backgrounds that have statistically low-rates of breastfeeding (Hoddinott & Pill, 1999; Ingram, Cann, Peacock, & Potter, 2008; Ingram & Johnson, 2004; Khoury et al., 2005; Whelan & Lupton, 1998; Wilson et al., 2013). Amongst the all sources of social support, family support especially support from the male partner, maternal grandmother (Arlotti, Cottrell, Lee, & Curtin, 1998; Bezner Kerr, Dakishoni, Shumba, Msachi, & Chirwa, 2008; Emmott & Mace, 2015; Fisher, 2013; Furman, Killpack, Matthews, Davis, & O'Riordan, 2015; Giugliani et al., 1994; Grassley & Eschiti, 2008; Grassley et al., 2012; Ingram & Johnson, 2004; Khoury et al., 2005; Nickerson et al., 2012), health professionals (Henderson & Redshaw, 2011; Khoury et al., 2005; Rayfield, Oakley, & Quigley, 2015; Renfrew et al., 2010) and peer support are strongly related to the prolonged duration of intentional breastfeeding behaviour (Arlotti et al., 1998; Dennis, 2003; Khoury et al., 2005; Nankunda et al., 2010; Stremler & Lovera, 2004).

Research has shown that antenatal intention to exclusively breastfeed is the most robust predictor of initiation and duration of exclusive breastfeeding (Behera & Kumar, 2015; Natan et al., 2015; Henderson & Redshaw, 2011). However, antenatal intention is insufficient for predicting behaviour if social support is lacking. Normalisation of breastfeeding within the family combined with peer support were the subjective norms that were identified by participants in this research that supported exclusive breastfeeding practice. Therefore, it can be concluded that the category of subjective norms is a critical variable in the performance of intentional behaviours (Göksen, 2002; Khoury et al., 2005). For example, initiation and prolonged duration of intentional exclusive breastfeeding behaviour is conditioned by

enabling influential factors such as family support, health professional support and the wider community support.

### **Theme 3. Perceived behavioural control: having control over the decision to breastfeed exclusively**

Although I did not ask participants directly about autonomy, most of the women in this study considered that they had control over their decisions to exclusively breastfeed their babies. Statements within the interviews such as “He tells me not to do formula feeding but it is up to you” (Naomi, 2013), “I want to do it [breastfeeding] with her” (Maya, 2013) and “I was open... to look[ing] into other options” (Nicole, 2014) indicate that the women who participated in this current research had autonomy over their breastfeeding decisions. The following section focuses upon the spontaneous talk from research participants about control over and constraints to exclusive breastfeeding behaviour that occurred in the interviews.

Julia (a lecturer) who breastfed exclusively her baby for the full six months spoke about her autonomy to make the decision to breastfeed exclusively for six months. She talked about the influential factors on her intention to breastfeed such as her knowledge and her experience of successful breastfeeding:

*I don't know, I probably just made my own decision on that. I definitely think it's the best thing that you can do for them. I don't know if there's anything in particular that made me think that. Probably advice and information from everywhere. I don't know if I could say anything in particular other than that I know it's good, and I know it to be good from previous experience is probably the best. (Julia, February 2014)*



Similarly, Victoria who had completed a bachelor degree and breastfed her baby exclusively for more than five months spoke about the adequate availability of breastfeeding knowledge and information:

*The only thing is you can't really ignore all the information that is everywhere about ... but I think the middle-class intelligent people that it's possibly not aimed at, can't ignore all the information that's being cited about how good it is for them. (Victoria, February 2014)*

Victoria comment also indicates that the educated and socially advantaged mothers consume this information more than the targeted audiences do. Ella, exclusively breastfed her baby for the whole six months while still breastfeeding her four years old son. She also claimed that it was her decision to exclusively breastfed her baby.

*I guess having my husband's support is really good but really it's just my decision that I wanted to breastfeed him so yeah. (Ella, June 2014)*

Ella's comment has shown that having good social support is effective for initiating and sustaining breastfeeding, however, the importance of the mother's control over her decision to breastfeed cannot be ignored.

Kate who breastfed her baby exclusively for the full six months also talked about her antenatal intention to breastfeed exclusively and her autonomy to turn her intention to action.

*I don't know if it [breastfeeding information and advice during pregnancy] really influenced my decision to breastfeed because I was already planning on breastfeeding. Yeah – yeah – yeah but it kind of influenced me to want to do it longer. (Kate, January 2014)*

Kate did not consider any information or advice as influential on her decision to initiate breastfeeding. However, Kate spoke about the influence of informational support on the

maintenance of her six months exclusive breastfeeding behaviour. Similarly, Jocelyn talked about her autonomy to breastfeed her baby exclusively.

*Well, my mother-in-law and my sister-in-law keep asking me if she's on formula – drinking from a bottle yet, and I get very annoyed when I get asked that question because I don't want to use formula and I don't want to go to a bottle. So they keep saying oh is she on formula yet – is she on a bottle yet? .... and I'm like no she's not. (Jocelyn, March 2014)*

Jocelyn's significant others encouraged her to formula feed, however, she sustained her exclusive breastfeeding practice which shows that Jocelyn had control over her decision to not formula or bottle feed her baby.

Brianna, who exclusively breastfed her baby for more than five months talked about autonomy over her decision to exclusive breastfeed despite all of the lactation problems that she experienced over an extended period including having formula suggested as an alternative:

*Every time I would latch the baby on I actually couldn't help but I was crying. And I think he [her husband] got really upset to see that I was in pain so he would kind of be suggesting maybe we [Brianna & her husband] should give up, maybe we should try a formula, because obviously he thought that it was too painful. So even though I didn't listen to him, so it doesn't matter, but I would have preferred that he was like let's keep going with this, we can sort it out, we'll find a solution with the breastfeeding... (Brianna, February 2014)*

According to Swanson and power (2005), perceived behavioural control can be measured by the level of autonomy a mother has over her breastfeeding behaviour. In a study of prolonged duration of breastfeeding, Rempel (2004) used the theory of planned behaviour to explain the intended and actual duration of breastfeeding. Perceived behavioural control was an important factor for predicting antenatal intention to prolong breastfeeding duration. There was a significant positive relationship between the amount of control that the mother felt over her breastfeeding and actual duration of breastfeeding. In comparison, a lack of control over

breastfeeding was the most influential factor for weaning before intended duration (Rempel, 2004).

Lucy was another participant who had a lot of breastfeeding issues during the first few weeks after birth such as sore nipples and breast pain. Despite these challenges Lucy sustained exclusive breastfeeding for the full six months. She spoke about how much health professionals and health messages around breastfeeding encourage mothers to breastfeed, which she appreciated. However, Lucy stated that she was the main person who made the decision to breastfeed and that she had complete control over her choice.

*I guess it's more society as well - that breast is best and to do that. I definitely can feel that that is what people push you to sort of do and all that. And my midwives – yeah both of them have been yeah that's the way to go and things like that which is good. I think they should be telling you that. But no I guess at the end of the day I was always dead set I was going to breastfeed and I don't think it would have altered what influence was going on, otherwise that was my choice, I was going to be breastfeeding regardless and the fact that I knew my mum had done it with all four of us kids, my sister –. (Lucy, April 2014)*

Mila originally had an antenatal intention to breastfeed exclusively for six months. She was the only participant in this research who gave up breastfeeding after one week postpartum due to sore nipples, and started formula feeding her baby. Mila spoke about the social barriers to breastfeeding particularly breastfeeding in public.

*I think initially I wanted to breastfeed because it's best, it's easier isn't it? You don't have to worry about buying stuff and making it up and taking the stuff out with you, and it's all natural and all that. It's good stuff. I was actually – to be honest – a little bit apprehensive about breastfeeding in public 'cos I've got quite big boobs. I've got a sling, though, which was useful, and I thought if it's working I'll just work out a way of doing it. But I was slightly sort of nervous about it, 'cos there's no subtle way of getting you out, if you know what I mean. But I think the things that made me want to do it was the fact that it is natural and it's just the best for baby if you can do it. (Mila, October 2013)*

Mila was the only participant to mention that she worried about how she would manage her intention to breastfeed exclusively for six months without breastfeeding in public. Mila was also the only participant in this study that had immigrated to New Zealand from the UK one year before her interview. Her opinion about breastfeeding in public may refer to her cultural background, since none of the New Zealand born participants mentioned breastfeeding in public as a barrier. However, research has shown that embarrassment or stigma associated with breastfeeding in public, or even in front of family members, is a common social barrier for new mothers who may find it difficult to overcome this obstacle (Bonia et al., 2013; Bueno-Gutierrez & Chantry, 2015; Shortt, McGorrian, & Kelleher, 2013; Ware, Webb, & Levy, 2014). Therefore, there is a necessity the normalisation of breastfeeding in public to be implemented alongside the education of health professionals as well as the pregnant women's significant others around the current knowledge and effective support for exclusive breastfeeding.

Overcoming unforeseen barriers to breastfeeding, such as sore nipples, is difficult for many new mothers. However, in this research most participants had the ability to overcome barriers to breastfeeding and had complete control over their decision to breastfeed exclusively. Even when close family members offered formula as an alternative, when they faced breastfeeding issues such as insufficient breast milk, sore nipples and breast pain, they strongly rejected their offers. Factors that encourage mothers to choose breastfeeding include a high level of education, good social supports, breastfeeding perceived as a cultural norm by the mother's significant others as well as the society in which she lives (Battersby, 2010).

The findings of the current research are similar to the results of other studies that have applied the theory of planned behaviour to explore the relationship between antenatal

intention and breastfeeding behaviours (Behera & Kumar, 2015; Giles et al., 2007; Ismail et al., 2013; Lawton et al., 2012; McMillan et al., 2009; Oosterhoff et al., 2014; Swanson & Power, 2005; Walsh, Kearney, & Dennis, 2015). While some of these studies found one factor to be more important than the other factors, this research has identified that behavioural beliefs, subjective norms and perceived behavioural control are equally important influences on intentional exclusive breastfeeding practices.

In addition, from a social psychological point of view self-identity is also an important part of an intentional action (Carfora, Caso, Sparks, & Conner, 2017; Carfora, Caso, & Conner, 2016; Dean, Raats, & Shepherd, 2012). Carfora et al. (2017) considered that the variables within the theory of planned behaviour, relating to behavioural beliefs, subjective norms, and perceived behavioural control, are not adequate for the prediction of the performance of an intentional behaviour. They concluded that self-identity is a major part of an individual's self-concept which predicts the intention and/or the performance of a behaviour (Carfora et al., 2017). The following section will discuss how self-identity can be added to the theory of planned behaviour as an additional factor for predicting antenatal intention, initiation and duration of exclusive breastfeeding.

#### **Theme 4. Identity beliefs: choosing to breastfeed exclusively to be a good mother**

In the current research, the participants' answers to the question of "Do you think that people are judgmental about women who give up breastfeeding?"<sup>58</sup> were manually coded

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<sup>58</sup> Appendix 10: Second face to face interview schedule, question 12.

and thematic analysis applied with the findings identifying that “good mothers choose to breastfeed exclusively”. In order to explore this theme identity belief was chosen as a useful component for an extended theory of planned behaviour.

The reason for choosing a question related to judgments around mothers who do not breastfeed was the fact that breastfeeding has become both a medical and a moral gold standard for mothering as well as a tool for measuring the quality of motherhood (Knaak, 2005; Lee, 2008). International organisations such as the WHO and UNICEF, for example, have promoted breastfeeding using phrases such as “in infancy no gift is more precious than breastfeeding” (WHO, 2003) and “breastfeeding gives children the healthiest start in life” (UNICEF, 2015). These messages contain emotional and cultural meanings which imply that if you do not breastfeed you are a “bad mother”. Therefore, mothering is not a private responsibility but a matter for the wider community that is judged by the public (Lee, 2008).

In the current research, when I asked participants if they thought people were judgemental about mothers who do not breastfeed, most participants answered “yes, they are”. Brianna was pro breastfeeding, she exclusively breastfed her son for more than five months while persevering with long-term lactation problems. She spoke about the unfair judgments around the formula feeding in New Zealand, she was upset particularly for mothers who do not have the ability to breastfeed and have to choose formula feeding.

*I think there's a lot of judgment around people who formula feed, if it's either by choice, or because they don't have a choice. I think there's a lot of judgment in New Zealand and in the health sector in particular. I think lots of people push breastfeeding and 'breast is best' even if it's at the expense of the mother and the mother's well-being. I think even though it's my personal opinion that breastfeeding is best I don't think it's ever okay to make somebody feel guilty or bad because they can't breastfeed or they choose not to. Yeah, I think there is a lot of judgment around*

*people who formula feed. Yeah, I think in lots of cases it's best that somebody just says if breastfeeding isn't working don't worry about it, try formula, that's perfectly fine. But that's not the advice that so many people get and they feel guilty or they feel like they're a failure because they can't do it, when really it's completely unrelated to motherhood and their ability to be a mother. I think they've put a lot of pressure and guilt around it. It's something that I never thought about before I was a mother. (Brianna, June 2014)*

Brianna suggested that breastfeeding should not be considered as a tool for measuring the quality of mothering. This comment is in accordance with the finding of studies that have identified infant feeding is more than nutrition as it has become a “measure of motherhood” (Lee, 2008; Murphy, 2004). Brianna statement that “breast is best” is consistent with research that has identified that the message “breast is best” is not about only nutrition, but that it shapes maternal identity (Lee, 2008). It means that if mother does not breastfeed her identity may be compromised (Lee, 2008). According to the common international dialogue of “breast is best”, breastfeeding status is changed from a nutritional method to a determinant of morality. Infant feeding determines which mother is good and who is a “bad mother” particularly if she decides to choose formula feeding for her baby (Carter & Campling, 1995; Marshall et al., 2007). Therefore, a range of social and cultural factors should be considered when studying infant feeding and the process of planning to breastfeed (Marshall, Godfrey, & Renfrew, 2007). For example, the characteristics of an “idealised good mother” as described by Locke (2015, p.140) is a white, heterosexual, married, middle class, mature mother who stays at home to accomplish her domestic tasks and does not engage in paid work outside of the home (Locke, 2015). Some of these characteristics reflect the demographics of most of the women who participated in the current research.

Addison who breastfed her baby exclusively for more than five months also spoke about some mothers who may have good social support or have found breastfeeding easy are

judgmental of other mothers who cannot breastfeed their babies for whatever reasons.

Addison was a pro breastfeeding mother; however, she spoke about the challenges and difficulties of breastfeeding practice for all women:

*Yeah, I do think that there is - for people that have been able to breastfeed because of good support at work or whatever can be judgmental towards women who haven't been able to breastfeed for whatever reasons and it's probably one of the hardest jobs in the world and you don't ever know whether you're going to be able to do. There's lots of things that can prevent you from breastfeeding and I think it's easy to go oh that's mother's milk. You know it's their first job is to breastfeed their child and so to judge people that can't or choose not to but - yeah. I also think it's probably a right to choose whether they breastfeed or not. And I find you get a lot online in social forums where women make comments about other women 'cos they say I have to give up breastfeeding because I'm going back to work or whatever or I wasn't able to because of inverted nipples or whatever and these negative comments that can ..... I think women feel - I think probably of all the things when it comes to being a mother in terms of parenting breastfeeding is the first major challenge in the sense that it's entirely up to the woman and it's probably the most critical. I mean parenting, you can't really criticise until the child's old enough to behave and talk whereas breastfeeding starts right from day one so I think people are quick to be critical. And I've heard of comments of things like oh that child feeds too much or they're always on the breast - which doesn't help either. Some children are always - whether they like to comfort suck or - and then there could be an issue too. But if somebody's just criticising - offering criticism as opposed to solutions it doesn't help the mother in any way. (Addison, May 2014)*

Addison even talked about the online environment and the judgemental comments that some breastfeeding mothers gave to the women who are struggling with breastfeeding and expressed that they wanted to give on the social networking websites. She said that previously people were judgemental of the quality of parenting from the behaviour of their toddlers, while today they can criticise parents from the first day of a baby's life if the mother does not breastfeed. Addison also said women are the only target of criticism about not breastfeeding. Similarly, research has shown that motherhood is a major part of the feminine fulfilment of gender (Christopher, 2012). Infant feeding has become an important symbol of motherhood as public discourses increasingly imply that without breastfeeding the maternal



role cannot be completed (Knaak, 2005; Lee, 2008). The ideology of “intensive mothering” suggests that a good mother should be child-centred and self-sacrificed (Locke, 2015, p.139). Therefore, women who do not follow this ideology might be judged as a bad mother in relation to societal ideals about parenting (Arendell, 2000). Intensive mothering is also an ideology that defines the mother as a central caregiver for her children who should meet her children’s needs before her own well-being (Hays, 1996).

Jocelyn who breastfed her baby exclusively for around five months talked about the challenges that mothers face when they are not able to breastfeed. Jocelyn also claimed that she is a pro-breastfeeding mother and very happy to breastfeed her baby exclusively but exclusive breastfeeding is very demanding:

*I think it's a bit sad because a lot of women want to but they can't [breastfeed] for whatever reason and they already feel bad enough that they can't do it. But also there are times when – I mean even though I'm very, very happy to be breastfeeding, I don't use bottles or anything, I don't express or anything like that, sometimes it can be inconvenient. Like I need to be available for her whereas somebody who is bottle feeding can potentially say here you look after my baby for a few hours and here's a bottle. So in some ways I can understand people needing to or wanting to formula feed their babies or even bottle feed with breast milk. So I think if that's their choice then good for them, it suits them, and I think that's important. I think all women should be supported to care for their children the best way they can because raising children is hard enough and you don't want people being judgmental about the way that you do it. I think ultimately people just do what's best for them and I think they should do that. They should just do what's best for them and not really worry what people are saying. I guess sometimes they might be swayed by other people's opinions. (Jocelyn, June 2014)*

In the above comments, Jocelyn emphasises the importance of informed decision making around the infant feeding practice and respecting the mothers’ autonomy. She also spoke about some mothers who may justify their infant feeding behaviour based on their perception of public opinion.

Hailey, the research participant who had to remove all dairy products from her diet because her baby was lactose intolerant, talked about formula feeding mothers who tried to justify their formula feeding due to the fear of being judged by others.

*Yes, I do think they do. I think people – ‘cos I can feel – there’s a couple of ladies in one group that I go to on Fridays who don’t breastfeed and you can almost sense their guilt when they talk about it, or when they get the milk bottles out you can just feel that they feel guilty. And there’s one lady that is mixed feeding and she always tries to breastfeed first and you can see that her baby just doesn’t get it or they haven’t got it together themselves and he screams and slaps. And she always tries and then she looks really upset and then she gets the bottle out. I often think if it’s easier for parents to bottle feed them rather than doing all of that. Yeah I do think – and they often – before even being asked why they don’t breast feed – they’ll start making excuses but I do think that they feel guilty themselves which is sad because I know I felt guilty when I couldn’t breastfeed [for about two weeks due to medical reason]. I think they are constantly justifying it. Like this other girl I know is always saying I’ve tried so many different positions and different ways to do it and she did a list of all the reasons why she struggles which is sad. (Hailey, May 2014)*

In above comment, Hailey spoke about feeling guilty, and she talked about her experience of this feeling when she could not breastfeed her baby for a short time due to the medical reason. Hailey also spoke about the mothers in their parenting group who formula fed or mixed fed their babies and how much work they did to preserve their identities as good mothers through making excuses and talking about all the efforts that they had made to try to breastfeed their babies. This finding is consistent with the results of other studies which have shown that public health messages about the risk of formula feeding for infant health (WHO & UNICEF, 2009) positions women, who have to feed their babies with formula for whatever reason, as having to justify their formula feeding because of the stigma that exists concerning maternal identity (Lee, 2008). Similarly, in a research study on breastfeeding and formula feeding, Knaak (2010) pointed out that mothers who participated in the study had a

negative opinion about formula feeding as a bad thing. The common theme that emerged from this study was “feeling guilty” when it came to formula feeding even when it was used as a backup or temporary method of feeding. Consequently, the method of infant feeding that a mother selects can bring feelings of joy, guilt, success and failure (Elliott & Gunaratnam, 2009).

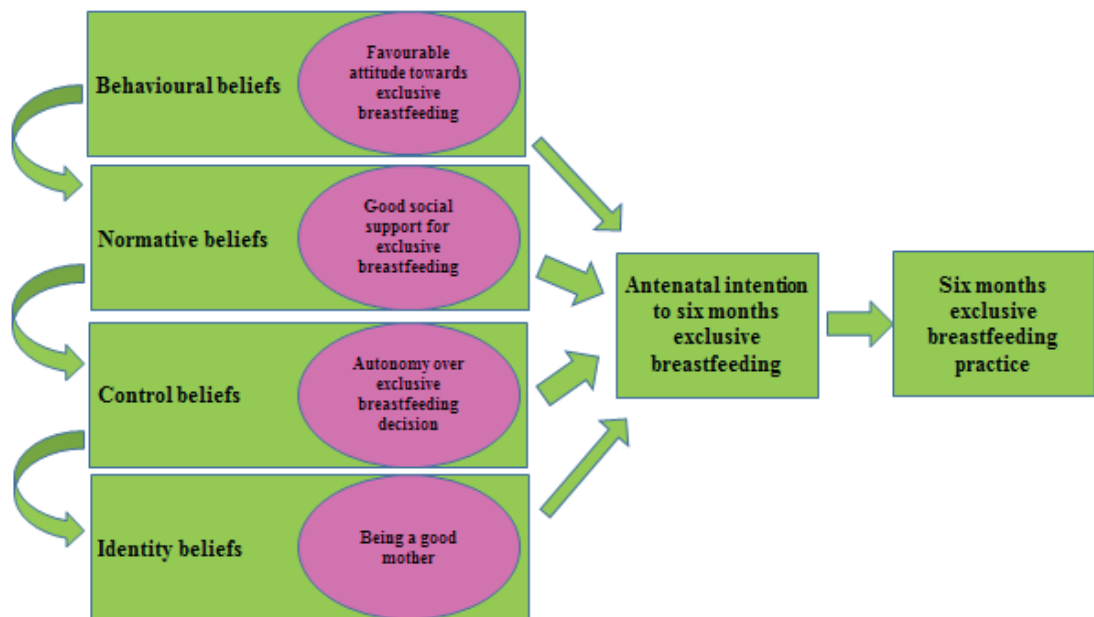
Victoria who exclusive breastfed her baby for more than five months spoke about attitudes towards a breastfeeding mother:

*Yeah, Yeah, I think they are [judgemental]. I've heard a few older ladies at the supermarket just randomly talking to me about my child and saying are you breastfeeding? And I feel like saying to them I am, but that's none of your business kind of thing. So I feel it's kind of the other way now, that if you're feeding formula you get the bad stigma and stuff like that. (Victoria May 2014)*

Victoria's discussion of people's reaction to her breastfeeding is consistent with research that shows in modern societies infant feeding is no longer a personal choice due to the promotion of breastfeeding through public health messages that have transformed breastfeeding into a moral and social responsibility (Knaak, 2010; Petersen & Lupton, 1996). Therefore, infant feeding is not just a task related to the private desires of a mother, but it has become a business for the government, health organisations and the wider communities in which women are located (Marshall et al., 2007). Therefore, in making a decision to breastfeed or formula feed during the pregnancy, the influence of public opinion, injunctive social norms or government cannot be ignored as a significant factor (Marshall et al., 2007).

It should be taken into account that both the primary and secondary social ties of a new mother may try to provide an environment for the mother to think about demonstrating social responsibility through choosing the approved method for feeding her own baby (Marshall et

al., 2007). The definition of “good mother” or “bad mother” which shows the morality and responsibility of a mother is an influential factor in making the antenatal intention to breastfeed as well as to initiate and continue breastfeeding (Marshall et al., 2007). Therefore, in most developed countries breastfeeding reflects the quality of motherhood through indicating that a mother is good, moral and responsible if she breastfeeds her children. In contrast, formula feeding is associated with “not so good mothering” implying selfishness and irresponsibility. The following diagram represents that self-identity of being a good mother and how this identity relates to other variables in the theory of planned behaviour relating to intention and duration of six months exclusive breastfeeding.



**Figure 4. 3:** Extended theory of planned behaviour for six months exclusive breastfeeding

One of the most important findings of the current research is identifying the significant role of identity as one of the components of the theory of planned behaviour that it was not explored previously by the studies that applied the theory of planned behaviour to breastfeeding (Behera & Kumar, 2015; Giles et al., 2007; Ismail et al., 2013; Lawton et al., 2012; McMillan et al., 2009; Oosterhoff et al., 2014; Swanson & Power, 2005; Walsh, Kearney, & Dennis, 2015). Identity is not only dependent on behavioural beliefs but it plays a significant role in shaping the evaluation of intention as well as breastfeeding practices. Self-identity is created and formed by the social networks around the mother and is influenced by the social norms in the society. Therefore, intention to breastfeed exclusively during pregnancy is socially constructed and influenced by the social relationships interactions and quality of support which are in turn shaped by the social networks around the mother.

## **Conclusion**

In this study, having an intention to breastfeed exclusively during pregnancy was the most significant predictor of initiation and maintenance of breastfeeding in the first three months. However, there are some factors that influence the antenatal intention to exclusively breastfeed associated with family support that are taken up in chapters six and seven of the thesis. If exclusive breastfeeding practice is considered an intentional behaviour, variables within the theory of planned behaviour may be applied to this practice including behavioural beliefs, normative beliefs (subjective norms), control beliefs and perceived behavioural control. In the current research, the theory of planned behaviour was extended to consider how self-identity plays an important role in the prediction of prolonged exclusive

breastfeeding behaviour. Therefore, the two components of the extended theory of planned behaviour including subjective norms and self-identity emphasise on how decision making around six months exclusive breastfeeding is created and formed through the relationships, interactions and networks in which the mother is embedded. Finally, maternal behavioural beliefs, subjective norms, perceived behavioural control and self-identity are socially constructed through the wider discourse and practices that are associated with breastfeeding and these factors equally influence the initiation and duration of intentional exclusive breastfeeding behaviour.

## ***Chapter 5: Reasons for Stopping Exclusive Breastfeeding between Three and Six Months***

### **Introduction**

In the previous chapter on antenatal intention to continue exclusive breastfeeding for six months, I explained the theory of planned behaviour in which intention, attitude, subjective norms and perceived behavioural control impact upon the desire to perform a behaviour (Ajzen, 1991). The theory of planned behaviour was extended to include self-identity as a useful component for improving understanding of the intention and enactment of six months exclusive breastfeeding practice. Research has shown that although the theory of planned behaviour is able to link antenatal intention to exclusive breastfeeding success, it cannot predict exclusive breastfeeding behaviour at six months after birth (Ismail et al., 2013). The maintenance of exclusive breastfeeding between three and six months is a major public health issue in most developed countries including New Zealand where data on exclusive breastfeeding duration indicate that it tails off after three months (Ministry of Health, 2012b). This chapter aims to understand the possible factors which cause interruptions to exclusive breastfeeding duration between three and six months in New Zealand based on the narratives of research participants. Although most participants in the current research exclusively breastfed their babies for approximately six months, in keeping with their antenatal intention to complete six months exclusive breastfeeding, they talked about the possible factors which can be barriers to sustain exclusive breastfeeding until six months. One possible reason for declining rates of exclusive breastfeeding duration after three months was a need for the mother to return to paid employment. Other reasons for stopping exclusive breastfeeding

between three months and six months identified by research participants were: every baby is different; six months exclusive breastfeeding is only a guideline and some babies are interested in solid foods. Participants believed that as a mother knows her baby best introducing a small amount of solids at around four to six months, while maintaining breastfeeding as the main method of infant feeding, was acceptable. Participants who were members of Pacific Island families identified that early introduction of solids was a common cultural practice in Pacific families. The next section will explain the importance of six months exclusive breastfeeding recommendations, as well as the influential factors on the duration of breastfeeding exclusively between three and six months in New Zealand.

### **Six months exclusive breastfeeding in New Zealand**

Six months exclusive breastfeeding provides complete nutrition for healthy growth as well as brain development and protects the children from life-threatening diseases such as respiratory infections and diarrhoea (Binns et al., 2016; Ip et al., 2007; WHO, 2016b). Although six months exclusive breastfeeding is the optimal method of infant feeding that is recommended by the WHO and other international health organisations (Ministry of Health, 2012a; WHO, 2011, 2015a), globally the rate of six months exclusive breastfeeding is very low (Ahlqvist-Bjorkroth et al., 2016), and the introduction of solids or liquids before six months is a common practice (Becker, Remington, & Remington, 2011). There are some external factors that influence the mothers' intention to maintain breastfeeding or to stop; these factors are multidimensional including the effect of significant others, health professionals, community and culture (Dodgson, Duckett, Garwick, & Graham, 2002). Most studies on factors affecting breastfeeding initiation and duration focus on the influence of



education for new mothers around the health benefits of breastfeeding or the disadvantages of formula feeding (Kukla, 2006; Williamson, Leeming, Lyttle, & Johnson, 2012a). This consideration of the mother as an education target in breastfeeding studies individualises breastfeeding, while breastfeeding research needs to look beyond the mother-infant dyad and focus on breastfeeding as a dynamic sociocultural practice (Dykes, 2006; Tiedje et al., 2002; Williamson et al., 2012a). Research has shown that in order to increase the rate of exclusive breastfeeding the influence of significant others, health professionals, community services, the whole society and culture should be considered (Tiedje et al., 2002; Williamson, Leeming, Lyttle, & Johnson, 2012b). New Zealand, for example, is a bicultural and multicultural country and the place of Maori, Europeans, Pacific Islanders, Asians and Middle Eastern people who live in the dominant culture alongside their own traditions, influence their infant feeding practices. Therefore, if policy makers aim to address the low rate of exclusive breastfeeding at six months, an understanding of the sociocultural influences that support or impede exclusive breastfeeding for six months in New Zealand is required.

Promoting the rate of exclusive breastfeeding duration in New Zealand should be a priority for the government. A new study in the Asia Pacific region (Binns & Lee, 2016), identified that prolonged duration of exclusive breastfeeding contains health benefits for the mother and baby; particularly it decreases the rate of morbidity and mortality in exclusively breastfed infants compared to those not breastfeed exclusively. As an example, it is documented that formula fed babies grow faster than breastfed babies and that breastfed babies have a normal and steady growth (Binns & Lee, 2016). Since obesity is a primary concern in the Asia-Pacific region then accelerated growth due to formula feeding or early introduction of solid foods is a significant risk factor for obesity in childhood and in

adulthood (Binns & Lee, 2016; Bovbjerg, Amador, & Uphoff, 2013; Rzehak et al., 2009; Wallby, Lagerberg, & Magnusson, 2017). According to the New Zealand Ministry of Health (2015), 11% of children aged 2-14 years are obese. This health survey reports obesity rates among Maori and Pacific children are even worse at 15% and 30%, respectively. In New Zealand 2015 statistics have shown that 31% of adults aged 15 years and older are obese and again data for Maori and Pacific indicates higher rates of obesity at 47% and 66% respectively.

It is important to note that the implementation of the WHO policy for six months exclusive breastfeeding in the Asia-Pacific Region was a significant factor in the reduction of infant mortality from 44 to 17 per 1000 live births over ten years (Inoue & Binns, 2014; UNICEF, 2014). Therefore it can be concluded that it would be beneficial if infants in this region were breastfed exclusively for six months based on the WHO recommendations. Research has shown that although the WHO recommends that solids should not be introduced before six months, most infants in the Asia-Pacific Region are given solid foods earlier than six months of age (Inoue & Binns, 2014). However as a result of the WHO recommendation to extend exclusive breastfeeding from four months to six months for all infants, since 2003 the number of Australian babies who were given solids before four months has declined significantly from 40% to 9% (Brodribb & Miller, 2013; Scott, Binns, Graham, & Oddy, 2009).

According to the European Society for Paediatric Gastroenterology, Hepatology, and Nutrition (ESPGHAN), exclusive breastfeeding for around six months must be the desired target, but any breastfeeding such as partial breastfeeding is also valuable containing many health advantages for both mother and baby (Agostoni et al., 2009; Inoue & Binns, 2014).

Even though the full six months duration of exclusive breastfeeding is the preferable recommendation, the idea that “any breastfeeding is valuable” is an important public health message that should be promoted by health professionals in order to encourage mothers to exclusively breastfeed their babies for a long duration (Inoue & Binns, 2014). However, other research has shown that any guideline that recommends exclusive breastfeeding for less than six months will result in the introduction of solid foods earlier than the recommended time frame (Brodribb & Miller, 2013). For instance, in Sweden when the recommendation for exclusive breastfeeding was four months, about 34% of the Swedish mothers gave up exclusive breastfeeding and introduced solid foods for their babies earlier than the recommended time (Hörnell, Hofvander, & Kylberg, 2001).

The early introduction of solids when four months was the standard recommendation was also noted in New Zealand research involving 74 European mothers and babies (Heath, Tuttle, Simons, Cleghorn, & Parnell, 2002). The Heath et al. study explored infant feeding behaviour during the first year of the infants’ lives. They found that amongst 88% who initiated breastfeeding at birth, 42% exclusively breastfed their babies at three months. The most influential factor for initiating breastfeeding was antenatal intention to breastfeed. Mothers who had a perception of insufficient milk had a shorter duration of exclusive breastfeeding. Mothers who were highly educated tended to have a longer duration of exclusive breastfeeding. The rate of introduction of solids before four months in this group of babies was 45%. The researchers suggested that although the rate of breastfeeding in their research was higher than in many developed countries, it was still lower than the breastfeeding recommendations in the time the research was carried out (exclusive breastfeeding for at least four months). They suggested a comprehensive educational

programme for expectant parents in New Zealand about the importance of a prolonged duration of exclusive breastfeeding and the health benefits of delaying the introduction of solid foods up to six months.

Overall, breastfeeding is the best method of infant feeding and contains many health advantages for both mother and baby as well as benefits for the family and national economy. Economic benefits accrue from saving money through cutting the costs of treatment for common infections during infancy and in the reduction of obesity which is one of the most pressing public health challenges for New Zealanders. While six months exclusive breastfeeding should still be the primary guideline for infant feeding in New Zealand any breastfeeding behaviour should be valued by health professionals and the wider community.

It is important to note that in New Zealand registered midwives successfully support breastfeeding mothers which can be seen in the high rate of exclusive breastfeeding at six weeks of 57%<sup>59</sup>, which is the time that mothers and babies are discharged from midwifery care service and handed over to other care providers such as well child providers and General Practitioners<sup>60</sup>. Therefore, increasing the rate of exclusive breastfeeding beyond three months is a public health challenge for New Zealand, and other sources of support should be considered like government funding<sup>61</sup> as well as family and community support.

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<sup>59</sup> Retrieved from: Plunket. Annual breastfeeding statistics. <https://www.plunket.org.nz/news-and-research/research-from-plunket/plunket-breastfeeding-data-analysis/annual-breastfeeding-statistics>. Accessed date: 20/11/2016.

<sup>60</sup> The influence of breastfeeding support from health professionals will be discussed in chapter 8.

<sup>61</sup> Support from both Ministry of Health regarding providing up to date training about exclusive breastfeeding for well child providers and General Practitioners. And Ministry of Business, Innovation &

Most participants in the current research were working mothers; they had the opportunity to use both paid <sup>62</sup>and extended<sup>63</sup> unpaid maternity leave for more than six months and up to one year. Although in this doctoral research maternal employment status was not a reason for cessation of exclusive breastfeeding, most research participants believed that returning to work may be a key reason for early cessation of exclusive breastfeeding for New Zealand mothers who are not eligible for paid or extended maternity leave due to their employment status.

## Findings

Amongst all participants who contributed to this study and had an antenatal intention to exclusively breastfeed their babies for six months, a minority could not sustain their exclusive breastfeeding after birth as a result of lactation issues such as sore or inverted nipples. Therefore, they had to breastfed their babies partially. Only one participant in this current research gave up breastfeeding after one week and formula fed her baby due to lactation issues. I will discuss the findings from research participants who gave up exclusive

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Employment regarding providing maternity leave for more than six months for all the mothers in New Zealand regardless of job status.

<sup>62</sup> Unless paid maternity leave is provided under the employment agreement, there is no requirement under New Zealand law for employers to pay an employee while she is on maternity leave. Government-funded paid parental leave is available for up to 14 weeks (2013) that increased to 18 weeks (2016). (Ministry of Business Innovation & Employment, 2016)

<sup>63</sup> If a woman on maternity leave has been working for her employer for at least 12 months (averaging at least 10 hours per week) before her child is born or adopted into the family, she is entitled to extended leave of up to a maximum of 52 weeks. This means that, in most cases, her job must be kept open for up to a year while she is on parental leave. This 52-week period includes the 18 weeks of paid maternity leave. (Ministry of Business Innovation & Employment, 2016)

breastfeeding from birth to three months in chapter eight which considers health professional support for exclusive breastfeeding.

After analysing the research participants' narratives related to prolonged exclusive breastfeeding duration and reasons for stopping exclusive breastfeeding after three to six months, four themes emerged. The good employee/good mother dilemma, breastfeeding is lovely but six months exclusively is demanding, exclusive breastfeeding recommendations should be individualised, and giving solids as a cultural practice. I will discuss the themes using examples from the interviews as well as related national and international literature. The following section considers returning to work as a potential factor that contributes to declining rates of exclusive breastfeeding duration in New Zealand after three months.

## **Returning to work**

According to Machado et al. (2014), returning to work is one of the most important factors that impacts on the maintenance of exclusive breastfeeding after four months. In the current research the influential factors that support mothers to exclusively breastfeed their babies for approximately six months include antenatal intention to exclusively breastfeed for six months, support from the Lead Maternity Carer (LMC) midwife, male partner, maternal grandmother and social media as well as access to paid maternity leave for working mothers who participated in this doctoral research. Research has shown that the most important socio-demographic characteristics of mothers who exclusively breastfed for a prolonged duration in Canada and the USA (Li, Ogden, Ballew, Gillespie, & Grummer-Strawn, 2002; Millar & Maclean, 2005; Semenic, Loiselle, & Gottlieb, 2008) included older age, married, higher education, more affluent, non-smoker, returning to work later or on paid maternity leave.

Similarly, a Brazilian study of barriers to exclusive breastfeeding duration (Machado et al., 2014), found that a low educational level, poor socioeconomic status, returning to work and a lack of social supports were significant demographic and psychosocial factors for stopping breastfeeding exclusively after four months. Most of the participants in the current research had similar characteristics to the North American study (Li, et al. 2002) plus a planned pregnancy and an antenatal intention to breastfeed exclusively for six months.

It is interesting to note that Scandinavian countries have the highest rates of breastfeeding in the world (Heath, Tuttle, Simons, Cleghorn, & Parnell, 2002; Magnuson, 2015). The 2015 Mothers' Index released by Save the Children (Magnuson, 2015), ranked New Zealand at 17 of 179 countries for breastfeeding statistics. The top five countries in this list are Scandinavian countries including Norway, Finland, Iceland, Denmark and Sweden respectively. It should be noted that in Norway working mothers are offered 36 weeks or nine months paid maternity leave as well as the right to breastfeeding breaks for an unlimited time at their workplaces (Magnuson, 2015). In a study of 1490 mothers and babies in Norway, Kristiansen et al. (2010), reported that the statistics on partial breastfeeding rates was about 80% at six months. However, the data on exclusive breastfeeding in the first month was 84%, at three months 65%, four months 48% and at six months had decreased drastically to 10%. The researchers concluded that even though Norway has generous paid maternity leave as well as a breastfeeding friendly culture, other maternal factors such as higher education, maturity and non-smoking status positively impacted on the duration of exclusive breastfeeding after three months.

At the time that this doctoral research was carried out in 2013, the New Zealand government had mandated 14 weeks<sup>64</sup> paid maternity leave<sup>65</sup> (2013) for eligible working mothers. Eligible employees include only permanent residents or citizens of New Zealand who have been working at least 10 hours per week for 12 months for their employers. The end of this 14 week period coincided with the time that exclusive breastfeeding rates tailed off in New Zealand. From the first of April 2016 (Ministry of Business Innovation & Employment, 2016) the duration of paid maternity leave was increased to 18 weeks for eligible employees. Eligibility for paid parental leave was extended to include permanent residents or citizens of New Zealand who have been working at least 10 hours weekly for six months as well as casual employees and those who changed their employers before the birth. This paid maternity leave still does not cover the time required for the six months exclusive breastfeeding. Therefore, increasing the rate of six months exclusive breastfeeding in New Zealand requires further support after four months such as offering more than six months paid maternity leave for all working mothers without any conditions.

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<sup>64</sup> Maternity leave is one continuous period of up to 14 weeks (2013). It includes an entitlement to at least 8 weeks' leave after the baby is born. This means that maternity leave can potentially be longer than 14 weeks if the child is born later than the expected birth date and the women began her leave several weeks before the expected birth date. In 2016, the maternity leave increased to 18 weeks (Ministry of Business Innovation & Employment, 2016)

<sup>65</sup> In New Zealand, parental leave is split into different types under the Parental Leave and Employment Protection Act 1987. One type of parental leave is "maternity leave". Maternity leave only applies to female employees. If an employee meets the criteria for maternity leave, her employer must allow her to take maternity leave if she becomes pregnant or adopts a child aged under 5 years. (Ministry of Business Innovation & Employment, 2016)



## **Theme 1. The good employee/good mother dilemma**

Returning to work is one of the most influential factors that shortens the duration of any breastfeeding (Dennis, 2002; Fein & Roe, 1998; McIntyre, Pisaniello, Gun, Sanders, & Frith, 2002; McKinley & Hyde, 2004; Payne & Nicholls, 2010; Wallace & Chason, 2007). According to studies on the factors related to breastfeeding initiation and duration, the most negative influential factor on any breastfeeding duration is a mother returning to work as a full-time employee alongside inadequate antenatal breastfeeding education and insufficient family support (Akman et al., 2008; Ertem, Votto, & Leventhal, 2001; Losch, Dungy, Russell, & Dusdieker, 1995; Piper & Parks, 1996).

In the current research most mothers who exclusively breastfed their babies for about six months were eligible to use 14 weeks paid maternity leave and they had the opportunity to extend their maternity leave period to one-year unpaid maternity leave. For example, Brianna who exclusively breastfed her son more than five months mentioned that she could not return to work before six months after the birth of her baby because of her commitment to six months exclusive breastfeeding:

*I'm a little bit dreading it so I've taken one year of maternity leave but I did say I can go back earlier if we decide that that's the best option. But definitely breastfeeding will have an influence on that decision so the earliest I would go back would be six months. But preferably when I go back I would still only be doing a smaller amount of feeds, like maybe in the morning and at night, something like that that could work in around my work day. But we haven't really figured out what's going to happen when I go back to work or who is going to look after our baby. (Brianna, February 2014)*

Brianna also talked about the potential difficulties that she will face when she returns to work after six months. Some of these challenges include the nature of her job, lack of support

from the manager and colleagues and most importantly that her workplace does not have a breastfeeding friendly environment.

*Unfortunately I think my specific manager, while initially she might be supportive, I think the reality would soon make her not supportive. Yeah I think she wouldn't because it would take time and I also think that she would be concerned at setting a precedent, so if she thought if I let her do it, then everyone will want to do it. I think that the reality of it is that she wouldn't be very supportive unfortunately. I think in general people would understand, but I also know that my job [office work] in particular is really, really busy and there's a really high workload, and there can be some resentment if one person isn't doing as much work as everyone else. And that would be my concern if I was taking time out that other people might think oh she's not doing as much work, and just because it's a really high pressure job that if one person in the team isn't doing as much then it impacts everyone, so I think that yeah that would possibly be a negative impact. In saying that I don't think that would really influence my decision though. I don't think so. I mean if I needed to I'd probably pump at work.... I guess that the main thing would be if there was a place for me to do it at work because there's not really. I don't know – like yeah so that would be what I'd have to think about - is there actually a physical room that I could use. (Brianna, February 2014)*

Brianna claimed that returning to work will not influence her partial breastfeeding after six months at which time she will add solids while expressing and breastfeeding her baby regardless of how many difficulties that she may face at her workplace. However, combining breastfeeding and work would be a challenging situation. Research has shown, even though working mothers can continue exclusive breastfeeding with social support from the employer, family and colleagues (Sulaiman, Liamputtong, & Amir, 2016), they may struggle with the idea that they must be a good mother and a good worker (Payne & Nicholls, 2010). In order to be a good worker they may have to stop exclusive breastfeeding or stop taking additional breaks to express their breast milk (Payne & Nicholls, 2010). Bettinelli (2012) has pointed out that every woman has the right to continue breastfeeding when she returns to work and no one can force her to choose between being a “good mother” or a “good worker”.

In addition, most women are not familiar with their employment rights and this is why they do not ask for further support and facilities at their workplace.

Some participants claimed that if they had to return to work earlier than six months, they might not sustain their breastfeeding exclusively to around six months. For example, Addison, who is a PhD student and exclusively breastfed her baby for around six months, suggested that her study is more flexible than work as she can return to university after six months.

*I don't work. I gave up work at the end of 2012, so I was a student last year while I was pregnant. I think study is slightly different in that it's a little bit more flexible and I can study from home. If I had to go back to work I think it would definitely impact on my ability to breastfeed. I didn't manage to express with my first so I was really reliant on having to be there to feed him and I haven't tried yet with my second but that would play a big role, actually being able to express and then having to set up that routine. (Addison, February 2014)*

Addison spoke about her experience with her first baby in which returning to work while breastfeeding had an adverse impact on her breastfeeding practice. A study of 4286 New Zealand infants (Essex, Smale, & Geddis, 1995) explored the prevalence of breastfeeding for six months after birth and the reasons for weaning before six months. The findings of the study were 93.8% initiation of breastfeeding at birth, the rates for any breastfeeding at six weeks, three months and six months were 79.5%, 71.3% and 56% respectively, while the rates for the exclusive breastfeeding were lower at 68.4%, 47.6% and 2.5% respectively. The most common reason for weaning was perceived insufficient breast milk supply. However, the most common reason for stopping breastfeeding in Pacific Island mothers was returning to work or study. The researchers recommended effective education around early breastfeeding problems for mothers and health professionals as well as encouraging

employers or educational facilities to support breastfeeding mothers who have to return to work or study while they are still breastfeeding.

Ava is another research participant who exclusively breastfed her baby for the full six months. Ava acknowledged the crucial support from her bosses and her colleagues as well as the importance of having her own office for expressing.

*I'm actually going back in December [the baby will be one year old], I'll probably just start expressing and use a bottle. All my bosses and supervisors are all really supportive. Only really like last time [for her first baby] I was expressing in my office and I had to lock my door because people would just come in. Not everyone, some people don't knock and they just come in. Actually, it's better than a lot of places. I mean, I've got my own office. (Ava, February 2014)*

Ava spoke about how difficult it was when she had to express at work for her first baby and how much the one-year maternity leave enabled her to continue exclusive breastfeeding for the full six months. Taiwanese research (Tsai, 2014), has pointed out that to support mothers to maintain breastfeeding after returning to work employers should create a breastfeeding-friendly environment for their female employees who can be encouraged to sustain their breastfeeding even after returning to work. For example, workplaces should provide a clean, designated room for breastfeeding as well as offering expressing breaks. However, the nature of workplaces is different, and employer support for breastfeeding will be unsuccessful without adequate support from the mothers' significant others.

Research has shown that employment status itself is not the only barrier to breastfeeding (Amin et al., 2011), and that a lack of support for working mothers at home also influences exclusive breastfeeding (Sulaiman et al., 2016). Another important factor for working mothers who want to sustain exclusive breastfeeding when they return to work is the

significant others' support as well as support from their co-workers at their workplace (Radzniwan, Azimah, Zuhra, & Khairani, 2009; Sulaiman et al., 2016; Tan, 2011). For example, Madelyn, who is a health professional, had to return to work after three months. She talked about anticipated challenges associated with the nature of her work and her intention to sustain exclusive breastfeeding after three months.

*I am intending to breastfeed for 6 months, however for the last 3 months of that I will be back to work so I want to continue however I recognized that with my job it may be difficult to do. I will need to express milk during the day and leave the supply with my husband who would be our son's main care giver when I'm at work. It may be that it is logistically too hard, then we would have to swap to formula, but I am hoping that won't be the case. I think they will be very supportive of it. There is a breastfeeding room at work; I can't see that my boss or management would have any issues with me continuing to breastfeed. The main issue from my point of view relates to the nature of my work, and the fact that it is hard sometimes to find time to have a break and express milk. The benefit is that I am generally in control of my work. I can usually decide what I do and when, but if I am doing a task which I need to accomplish ..., then I can't leave just to go express breast milk. I need to think of the patients' needs. The problem with clinic is that if I stop the clinic and go express breast milk that means that everyone is waiting longer. There is no issue about rules. I think the [names workplace] is very supportive of breastfeeding. The issue would be whether or not I can arrange the time in my schedule to express without impacting on the care of my patients. I think that I will be able to manage it if I am very organized. Initially I will spend three months at home caring for our son. From 3 months to 6 months he will be staying home with my husband. My husband is very supportive as I mentioned. He can have formula as a backup, but hopefully we don't need to use it. After 6 months he is going to childcare which is quite near the [names workplace], and I'm hoping to walk over and give him some feeds during the day. (Madelyn, October 2013)*

Madelyn successfully exclusively breastfed her son for around six months, and her husband fed the baby with her expressed breast milk when Madelyn was at work or had to travel for training. While Madelyn's workplace supported breastfeeding, it was largely left up to her to make this work in relation to her daily routine. The individualisation of

responsibility is an example of how workplace policies that support breastfeeding may not necessarily translate to practices on the ground. Therefore, employment status is just a partial barrier to sustain exclusive breastfeeding, and it depends on the amount of social support within the workplace as well as adequate family support. However, intention to maintain exclusive breastfeeding alongside other socio-demographic characteristics also impacts on the working mothers' decision to stop or continue their breastfeeding behaviour (Radzniwan et al., 2009; Sulaiman et al., 2016).

Most research participants in the current study had the ability to use paid, and extended maternity leave for more than six months, and they stated that this long maternity leave duration was very influential for sustaining their six months exclusive breastfeeding practice. Some participants acknowledged the enormous support from their significant others, their employer and colleagues. However, some of them reported that the nature of their job is a major barrier to continuing breastfeeding when they return to work.

## **Theme 2. Breastfeeding is lovely but six months exclusively is demanding**

Most mothers who participated in the current research did not have any of the risk factors associated with cessation of exclusive breastfeeding before six months. Participants were highly motivated breastfeeding mothers who had an antenatal intention to complete six months exclusive breastfeeding. Participants who did not continue exclusive breastfeeding for the full six months talked about how exclusive breastfeeding is difficult and demanding for mothers. Abigail breastfed exclusively for around four months and started only one bottle of formula at night for her baby. In the following narrative she talks about her reasons for

selecting exclusive breastfeeding for four months and why she did not switch to formula feeding earlier than four months:

*He [the baby] was happy and it was nice and cuddly and yeah. And when it's nice – you know - and the other thing is it's just so convenient. That's one reason why I wouldn't switch to formula straight away is it's just so much easier if you're out and about to breastfeed rather than trying to get formula ready. Yeah. And it's nice I mean you're feeding him and he looks up at you and smiles and it's cute. (Abigail, February 2014)*

Abigail considered bonding and ease of practising breastfeeding as the important reasons for her decision to initiate and maintain exclusive breastfeeding her baby for more than four months. Although Abigail did not give up breastfeeding completely after four months, she spoke about 'wanting your body back' as a key reason that New Zealand mothers might quit exclusive breastfeeding after three months.

*I suppose when I saw the original form [this current research information sheet] and stuff like that – the survey – I thought last time [for her first baby] I really struggled at the beginning with feeding because it took such a long time. And like 'cos I think your original statement [this current research information sheet], talked about the drop off in feeding after, was it three months or something like that? And I thought yeah I can see why that happens because at that point you just sometimes just want your body back. Like it feels like you're giving it to your child a little bit and yeah I think last time I found it really hard 'cos he fed for a really long time whereas he [this baby] not quite so much. He's a bit more either efficient or doesn't need quite so much. So I can see why people either resort to formula and use a bottle or just kind of really struggle with it - yeah. Well this time it depends – like it depends when he stops or decides to stop. (Abigail, February 2014)*

The above comment from Abigail has shown there is another dilemma for women that relates to a perceived lack of bodily integrity. Abigail believed that one of the most common reasons for stopping exclusive breastfeeding after three months in New Zealand was that mothers may be struggling with a desire for bodily autonomy. Addison who exclusively breastfed her son for more than five months talked about the benefits of breastfeeding

including bonding and ease of breastfeeding practice. However, she spoke about why the full six months exclusive breastfeeding is difficult for mothers. Like Abigail, Addison also suggested that exclusive breastfeeding for six months is demanding as older babies go through periods in which they feed continuously and that the mother needs to find time to look after herself as well.

*Yeah I mean it's lovely to have that quality time and it's so easy - you know you can just do it anywhere any time. But I think especially at this age coming up to six months it's quite demanding. They grow very fast, there's lots of developmental changes, and so they generally have a growth spurt and so you do end up feeding so much, and it's a big call to be feeding yourself as well as a growing baby. (Addison, May 2014)*

Addison's comment about "feeding yourself" highlights that some of the unmet needs of women who breastfeed for a longer duration need to be included in the World Health Organisation's six months exclusive breastfeeding guidelines (WHO, 2011). Addison criticized the full six months exclusive breastfeeding guidelines, suggesting that giving a timeframe to the mothers is very new and that it could set some mothers up to feel like they have failed.

*Yeah and I think because it gives you that timeframe too, people might feel they've failed if they breastfeed for five months and three weeks and not the full six months. And I think it's quite a new term. Exclusively breastfeeding for six months is something that's only come in. (Addison, May 2014)*

Addison's comments suggest that mothers may feel that their individual circumstances are not considered in general guidelines that recommend six months exclusive breastfeeding.

Internationally the most common reason for stopping exclusive breastfeeding is the perception of inadequate breast milk supply (Basire, Pullon, & McLeod, 1997; Evans, Evans, & Simmer, 1995; Heath, Tuttle, et al., 2002; Houghton & Graybeal, 2001). New Zealand



research on the psychological factors that impact on the infant feeding during the first year of life (Heath, Tuttle, et al., 2002), found that just 3% of mothers sustained exclusive breastfeeding until six months and the most important reason for exclusive breastfeeding cessation was insufficient breast milk as perceived by the mothers. It can be concluded that almost all infants in New Zealand are not breastfed exclusively at six months and that they are given solids early because New Zealand mothers perceive that they have an inadequate supply of breast milk. An underlying factor is that most mothers think breastfeeding is much more difficult than anticipated when they were pregnant especially when faced with breastfeeding problems like sore nipples, interrupted sleep or that breastfeeding limited their social activities (Basire et al., 1997; Evans et al., 1995; Heath, Tuttle, et al., 2002; Houghton & Graybeal, 2001).

All participants in this doctoral research were highly motivated breastfeeding mothers who had an antenatal intention to six months exclusive breastfeeding and did not have any risk factors for interruption of exclusive breastfeeding duration. However, most of them claimed that the six months exclusive breastfeeding duration is demanding for mothers regardless of receiving extensive social support. These mothers believed that individual needs were not considered when international health policy makers made the six months exclusive breastfeeding guidelines for all babies.

### **Theme 3. Exclusive breastfeeding recommendation should be individualised**

Exclusive breastfeeding for the full six months has been recommended by the WHO since 2001 (Kramer & Kakuma, 2004). Before 2001, the recommendation was exclusive breastfeeding for four months (Yanicki, Hasselback, Sandilands, & Jensen-Ross, 2002).

Brianna, who exclusively breastfed her baby for more than five months despite having breast pain for a long period after the birth, said that she did some research on the six months exclusive breastfeeding recommendation and found that this WHO guideline is flexible, and it depends on every baby's situation.

*Yeah 'cos I did do some research into it and had a bit of a look and I know that in the past Plunket [well child provider] has recommended that the babies start [solids] at four months. And then I thought about the changes around that and looked into baby requirements in terms of needing extra iron and things like this. So I felt that it is flexible and that it depends on every baby 'cos every baby is different. And I wouldn't want to withhold food because there was an abstract date in my mind that somebody who didn't know my baby told me that I should wait. But I see it as a guideline and it's quite flexible. I have a couple of friends who have babies that are a similar age so I talked to them about it and nearly all of them had started actually before six months. I had one friend who started after but her baby was not interested at all. Like she would try and give him some food and he wasn't really interested so yeah so we did kind of talk about how it's going. (Brianna, June 2014)*

Brianna noted that previously Plunket nurses (well child providers) advised mothers to breastfeed exclusively for four months and mentioned the problem of iron deficiency for the babies who are exclusively breastfed for six months. Recently there has been a debate that has focused on the micronutrient adequacy and the health benefits of six months exclusive breastfeeding for babies (Kramer & Kakuma, 2012; Lawrence, 2006; Tawia, 2012). As an example, the possibility of iron deficiency and iron deficiency anaemia amongst exclusively or fully breastfeeding infants is well established particularly after four months of exclusively breastfeeding (Dube, Schwartz, Mueller, Kalhoff, & Kersting, 2010; Kramer & Kakuma, 2012; Marques, Taddei, Lopez, & Braga, 2014). Therefore, it has been suggested that the level of iron in exclusively breastfeeding infants should be monitored after four months of age to prevent a compromising hematologic status (Marques et al., 2014). Some studies even

recommend giving supplementary iron to breastfeeding infants after four months in the form of iron-fortified formula, iron drops or bioavailable iron via complementary food (Dube et al., 2010; Kramer & Kakuma, 2012). However, there is inadequate evidence that giving iron to breastfeeding babies after four months makes any difference to growth, neurodevelopment and the health outcomes of infants (Long et al., 2012).

Research has shown that six months exclusive breastfeeding is related to lower iron stores only in low- and middle- income countries (LMICs) (Kramer & Kakuma, 2012). It is notable that defence against infectious illnesses in infants with iron deficiency anaemia and malnutrition is very low (Gera & Sachdev, 2002). Ironically, the risk of acquiring infectious diseases is related to a higher level of haemoglobin concentration in babies who are given iron supplementation (Gera & Sachdev, 2002). For example, on the African continent where malaria, HIV and tuberculosis are prevalent, some studies have identified that iron deficiency was associated with the higher immunity of exclusively breastfed babies against these fatal diseases (Gera & Sachdev, 2002). In addition, research has shown an increased risk of diarrhoea among infants who are given iron orally. However, the researchers could not conclude that the diarrhoea was a result of gastrointestinal infections or because of the irritant effect of iron on the infants' gastrointestinal system. Therefore, the supplementation of iron for exclusive breastfeeding babies might have increased the vulnerability of these babies particularly in the LMICs (Gera & Sachdev, 2002).

There are many health benefits related to six months exclusive breastfeeding regardless of the countries' socio-economic status (Kramer & Kakuma, 2012). The evidence shows less morbidity from gastrointestinal infections in six months exclusively breastfed babies compared to those who were partially breastfed (Kramer & Kakuma, 2012), and also no deficits

in the growth of infants who were breastfed for six months exclusively in both developed and developing countries (Becker & Remington, 2014; Kramer & Kakuma, 2012). However, research has shown that (Kramer & Kakuma, 2004) the optimal duration of exclusive breastfeeding is six months in both developed and developing countries. Therefore, the available research identifies that there is no risk in the recommendation of six months exclusive breastfeeding for each child as a general policy (Becker & Remington, 2014; Kramer & Kakuma, 2004, 2012). However, the women who participated in this research identified that the size of the baby influenced breastfeeding practice and that maintaining exclusive breastfeeding for six months was a challenge when babies started to show an interest in food.

When I asked Hailey about having an individualised feeding schedule for each baby, she spoke about her thoughts related to this matter using some examples from her peer group.

*I think that's true. Like there's one baby in my antenatal group who's a monster – he's huge – and he's started on solids already. He started when he was four months old exactly and you could just tell he needed it. He also has a lot of reflux and other problems so I think he definitely needed to be on solids whereas like there are twins in my antenatal group and they're just over 5½ months and they're exclusively breastfed. But they are very little and I think that mother's amazing to be exclusively breastfeeding twins but they definitely aren't ready for solids and I don't think my baby is quite ready for solids either, so I do think every baby is different. (Hailey, May 2014)*

Hailey's comment about the mothers and infants in her support group highlights the importance of informed decision making around exclusive breastfeeding duration and recognising the mother is qualified to make a decision regarding the duration of her exclusive breastfeeding practice based on perceptions about her baby's development.

Jocelyn spoke about the main reason that she introduced solids for her baby after four months. She stopped exclusive breastfeeding so her baby could participate in eating as a family activity.

*I think that every child's different. I know that children don't need anything before six months but I know that every child is different. So she knows that we're eating and she got very upset that we were eating and she wasn't so that was our main reason for starting solids because we wanted to involve her in the family activities, and it only happens once a day so it was important for us to do it. I think in general all babies are different and I know a lot of my friends' babies - like for example in my antenatal group I've got there's one baby who's really big - he's like 9kg and he's five months old. He has a very healthy appetite and he's always hungry and so she feeds him solids because he needs it, he's just so hungry all the time. But then there's also the smallest baby in our group who was very premature. He eats a lot of solids too because again he's always feeding. Even though he's tiny he's always feeding and she [the mother] can't get enough milk into him. She doesn't want to supplement with formula which is what somebody suggested to her so she instead tried some solids and he's enjoying the solids. (Jocelyn, June 2014)*

Jocelyn also considered that while exclusive breastfeeding is the best option “every child is different”. She acknowledged that some babies are ready to be fed before six months regardless of their weight or size of their body. Likewise, an Australian literature review on the topic of full six months exclusive breastfeeding (Anderson, Malley, & Snell, 2009) concluded that the time for the introduction of solids for the baby is unknown. Some research claims that in developed countries babies should be given solids after six months due to avoidance of allergy reactions. While other studies found that the gradual introduction of solids between four and six months might result in fewer cases of allergy reactions in babies (Anderson et al., 2009). However, the researchers recommended that until all aspects of health are taken into account the WHO recommendation about six months exclusive breastfeeding is still the best guideline and also that the introduction of solid foods should not be later than six months (Anderson et al., 2009). Becker et al. (2011), reviewed the randomised trials that had compared the infants who were exclusively breastfed until six

months with the breastfed infants who received supplementary food or formula before six months. They found no significant difference between the two groups in the babies' weight loss, and they could not find any evidence to support complementary foods or liquids around four months nor any results to show risk related to morbidity or weight change between the two groups of infants. Therefore, it was concluded that further research is needed to determine the advantages or disadvantages of mixed feeding from four months until six months compared to exclusive breastfeeding for up to six months (Becker et al., 2011).

Victoria, who introduced solids after five months, spoke about her baby's willingness to try solid foods. She told me she did not have any barriers to exclusive breastfeeding for six months and that the baby was the main barrier to six months exclusive breastfeeding.

*It was mainly because I felt like he [the baby] was hungry and reaching for food, literally reaching for food and growling while we were eating and all of that kind of stuff. It was the main reason why we ended up giving him food. I suppose my only barriers were him and the way he was acting really, and just feeling like he wanted more. Then also, as soon as it started how much he's eaten so quickly. I suppose he was the only barrier really, 'cos he just seemed to want the food so much and be so interested in it. (Victoria, May 2014)*

Similarly, Ashley talked about the readiness of her baby to try food. However, Ashley stated that she gave her baby just a small amount of solids and that breastfeeding was still the main method of infant feeding.

*Just the fact that she was showing signs she was ready to be fed, So started to try and she was showing signs like holding her head up and following food and everything, but it was only last week, and she's only been on it every other day. For me at the moment she's still getting as much breastfeeding as she was before she had solids. It's just she's having that extra bit of solids so my breastfeeding experience hasn't really changed. (Ashley, April 2014)*

The theme “exclusive breastfeeding recommendations should be individualised” that emerged during analysis of the participants’ narratives is consistent with the results of the studies carried out by Kramer and Kakuma (2012) who considered that every child is different and babies should be fed based on the individual schedule, their needs or growth situation (Kramer & Kakuma, 2004, 2012).

Some participants in this research introduced solids before six months because their babies showed signs of readiness to eat solids. They believed that the exclusive breastfeeding recommendation should be individualised because every infant is different. The decision to introduce solid foods to an exclusively breastfeeding baby is related to the social interaction and psychological factors in a family. It is interesting to note that parents enjoy feeding their babies solid foods because they consider signs of readiness for solid foods as a step in the infant’s development and that this interest in food is a sign of maturity. Therefore, most parents introduce solids earlier than the recommended time of six months because they do not have an adequate knowledge about the risks of early introduction of solids. Previous advice about the introduction of solids at around four months also results in parental confusion about the suitable time for the introduction of solids and the fact that these guidelines have changed brings their credibility into question.

#### **Theme 4. Giving solids as a cultural practice**

The New Zealand Ministry of Health guidelines, as well as health professionals, recommend that solid foods should not be introduced before six months. New Zealand research has identified that some Maori or Pacific Island mothers, as well as young Pakeha mothers, introduced solid foods before three months with some Pacific people starting solids

for their infants as early as six to eight weeks (Abel et al., 2001). In 2013, the population of Pacific people in New Zealand was around 7.4 percent of the total New Zealand population<sup>66</sup>. The Pacific population is young with about 55% under 25 years of age<sup>67</sup>. Pacific Islanders also have a preference for larger families meaning that Pacific women are over-represented in the childbirth statistics<sup>68</sup>.

Addison who exclusively breastfed her baby for more than five months spoke about her baby and how much he needs food. Addison mentioned although there is a tradition amongst her husband's families of starting "coconut milk" or "taro" for their babies very early, she did not try those foods and maintained exclusive breastfeeding.

*My son was showing signs of being interested in food and he's a big baby and he was feeding a lot, I knew with my first son that they recommend six months but there's also a tradition within Pacific Island families to start their children on solids younger because the babies are generally bigger and onto solid foods. I'd actually talked to my partner's family 'cos he's Samoan and they start giving their children solids mostly like taro or sometimes coconut milk as well so we didn't try either of them. Well they [her husband's family] just said it's common for Pacific Island babies who are born big and stay big and feed a lot to start on some type of substitute earlier than six months. So I know breastfeeding babies do tend to feed more and more during the night but he was probably during the day feeding every one to two hours and then during the night probably about every two hours and that meant that I was just breastfeeding constantly pretty much. And it hasn't made a huge change. It's only been a week and a half so I haven't been able to see – he's only just started having bowel movements and just to see how he's digesting. But when he does have solids he's awake for a much longer period which means that he gets tired and then he has a longer sleep afterwards. And he's always really tired and has a good sleep after solids so I take that as a sign that it's going to help him get into a better routine and sleep longer. I think it was something I decided to do. So that was one*

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<sup>66</sup> Retrieved from: Ministry for Pacific People. <http://www.mpp.govt.nz/pacific-people-in-nz> Accessed date: 11/12/2016.

<sup>67</sup> Retrieved from: Statistics New Zealand. <http://www.stats.govt.nz/census/2013-census/profile-and-summary-reports/quickstats-culture-identity/pacific-peoples.aspx> Accessed date: 11/12/2016.

<sup>68</sup> Retrieved from: Statistics New Zealand. <http://www.stats.govt.nz/census/2013-census/profile-and-summary-reports/quickstats-culture-identity/pacific-peoples.aspx> Accessed date: 11/12/2016.



*reason why I started him on solids because he was feeding so – he was getting so hungry and feeding so fast that he gets lots and lots of wind and it either wakes him up or sometimes he can spend quite a bit of time awake just bringing up wind. He’s bigger than his brother was and he’s probably lost weight. And he’s still – I mean like we’ve only just started introducing solids so it’s one very small meal a day. I haven’t increased it to more than one so he’s still very dependent on breastfeeding. (Addison, May 2014)*

Addison also noted that as her husband is a Pacific Islander her baby is bigger and therefore he is hungrier as well. Similarly, research has shown that New Zealand babies tend to be given solids earlier, and that Pacific Island babies are given solid foods very early including around six weeks<sup>69</sup>. The main reason identified by mothers who gave solid foods to their infants early was that our babies are bigger and hungrier than the babies in European countries or elsewhere where policies about the timeframe of giving solid foods to the infants at six months are made (Abel et al., 2001).

One of the most common mistaken beliefs related to infant and child health amongst many cultures and ethnic groups is that a “big baby” is a healthy one. This belief is cited as a reason for stopping exclusive breastfeeding earlier because of the perception of breast milk insufficiency and the need to introduce solids or formula for the infants particularly if the babies are tiny (General, Control, & Prevention, 2011; Heinig et al., 2006; Higgins, 2000; Schlickau & Wilson, 2005).

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<sup>69</sup> About 14% of Pacific children are given solid food before four months of age. This is higher than the national average. Retrieved from: Ministry of Health (2013). The health of Pacific adults and children. <http://www.health.govt.nz/publication/health-pacific-adults-and-children> Accessed date: 20/12/2016.

It is important to note that there is a discussion around the slow growth of children who are exclusively breastfed from four to six months during infancy in developed countries compared to infants who are formula fed or breastfed exclusively for a shorter period (Dewey et al., 1995; Haschke & Van't Hof, 2000). However, no advantage or health benefits were identified in the group of babies with rapid growth who were formula fed or breastfed exclusively for a shorter period, while there are many health benefits in prolonged duration of exclusive breastfeeding compared to formula feeding (Kramer & Kakuma, 2012).

Ashley, breastfed exclusively for more than four months and just added a small amount of solids, while maintaining breastfeeding as the main source of nutrition.

*Yeah we talked about it but he [her husband] was all for starting her on solids and stuff, I mean still primarily breastfeeding, but just giving her that extra little bit. Yeah I mean my partner's family they were all very – I know they started on solids very young– they weren't pushy but they all support me to start solid for her. So they were all kind of all giving me all positives about it. (Ashley, April 2014)*

Ashley talked about her family and her partner's family tradition to introduce solids very early for the baby. Some participants in this study talked about their own family or their partner's family culture of introducing solids very early. These participants claimed that there is a tradition in some New Zealand families of introducing solids early with some Pacific Islanders giving solids as early as six or eight weeks after birth. New Zealand research has identified as some Pacific people believe that because their babies are bigger they should start solids earlier, this observation was confirmed by one of the participants in this study who was a member of a Pacific Island family. Early introduction of solids is concerning as research has shown that giving solids before 17 weeks is a risk to the baby's health because

of the potential for the development of allergy reactions (Agostoni et al., 2009; Agostoni et al., 2008; Inoue & Binns, 2014).

Overall, some of the participants introduced a small amount of solids earlier than six months, while maintaining breast milk as the main source of nutrition for their babies until the full six months and beyond. Participants who followed the recommendations and successfully sustained their exclusive breastfeeding duration for about six months were very satisfied and proud that they could achieve their intended exclusive breastfeeding goals. Also, they acknowledged the social support that they received from significant others during the period between three and six months, at a time when they did not have any lactation issues or advice from their midwife. This research also found that returning to work and maintaining exclusive breastfeeding is very difficult for mothers. However, the good worker good mother dilemma can be resolved if employers understand the needs of exclusive breastfeeding mothers who work for them and if mothers are aware of their employment rights as exclusive breastfeeding mothers. Significant others also have a unique role in supporting the breastfeeding mothers who want to return to work while continuing exclusive breastfeeding.

## **Conclusion**

In the current research, half of the participants exclusively breastfed their babies until the full six months. It has been noted throughout the thesis that the research participants mainly shared demographic characteristics of socially advantaged, well-educated, highly motivated to breastfeed exclusively for six months as well as having extensive social support from their family members, health professionals and both virtual and actual social networks around

them. While much of the available literature on barriers to breastfeeding has been carried out on the women who less educated, socially disadvantaged, young or teen-age mothers and who lack social support. Many of these studies have concluded that these socio-demographic factors negatively affect initiation and duration of breastfeeding. Therefore, the findings of the current research show that despite all the indicators that these participants had for successfully completing six months exclusive breastfeeding some of them introduced solid foods earlier than six months, and this was attributed to the fact that six months exclusive breastfeeding is challenging even for this group of women. The influence of social networks around the mothers including significant others, employers, and the wider community as well as socio-cultural context of the mothers' life on the duration of exclusive breastfeeding also indicates the relational nature of six months exclusive breastfeeding behaviour.

## ***Chapter 6: The Impact of Family Culture on Six Months Exclusive Breastfeeding***

### **Introduction**

This chapter and the next chapter aim to evaluate how family support impacts on exclusive breastfeeding practice. Support from family members may influence intention, initiation and prolonged duration of six months exclusive breastfeeding. In the current research most participants received extensive breastfeeding support from their families, particularly their own mothers and their male partners.

There are many stressors during the postpartum period for a mother such as fatigue, emotional tension, the experience of traumatic birth and lactation issues including breast pain. However, social support can promote maternal self-efficacy which is a very important coping strategy for sustaining six months exclusive breastfeeding. Therefore, after thematic analysis of the data the theory of stress, coping strategies and social support proposed by Thoits (1995), was applied to these two chapters to interpret the findings related to the importance of social support from significant others.

The findings of this current chapter also highlight the importance of the inter-generational breastfeeding culture in a family, as well as the critical role that maternal grandmothers play in supporting exclusive breastfeeding. The effectiveness of emotional and informational support for breastfeeding mothers, compared to instrumental or practical support is also considered.

## **Background**

Exclusive breastfeeding for six months is recommended by the World Health Organization and UNICEF (WHO, 2015) as the health benefits of exclusive breastfeeding for both mother and baby are well established (Arenz, Ruckerl, Koletzko, & Kries, 2004; Jager et al., 2015; Gribble, 2009; Ministry of Health, 2012; Ip et al., 2007; Kwan, Buffler, Abrams, & Kiley, 2004; Lawrence & Lawrence, 2010; Lawrence, 2009; Ministry of Health, 2009, 2012a, 2012b; Oddy, 2002). However, the rate of exclusive breastfeeding is declining in developed countries such as New Zealand, Australia, the United States, United Kingdom and Canada ( Jager et al., 2015; Ministry of Health, 2009). There is a significant relationship between breastfeeding incidence and socioeconomic factors like age group, the level of education and marital status (Dewan, Wood, Maxwell, Cooper, & Brabin, 2002; Scott & Binns, 1999). However, the role of psychosocial factors such as self-efficacy, social support, postpartum depression, stress, anxiety, intention to breastfeed and attitude towards breastfeeding are also factors that are significantly linked to the duration of exclusive breastfeeding in these developed countries (Adedinsewo et al., 2014; Jager et al., 2015; Groer, Davis, & Hemphill, 2002; Leahy-Warren, McCarthy, & Corcoran, 2012).

Although the birth of a baby brings happiness to a family, there are many stressors during the postpartum period that a mother must deal with such as: fatigue, emotional tension, experience of traumatic birth, breastfeeding problems, physical care of the newborn, doing household chores and adaptation to the parenthood which make the new mother vulnerable during this life event (Adedinsewo et al., 2014; Groer et al., 2002). It is noteworthy that there is a negative link between breastfeeding duration and maternal mental health problems such

as stress and anxiety which decreases the rate of breastfeeding by undermining maternal self-efficacy as well as suppressing the production of breast milk (Adedinsewo et al., 2014). One of the most important triggers of stress and anxiety for the new mothers during the postpartum period is “*social exclusion*” or “*being alone*”, therefore providing social support for the new mothers can facilitate a smooth transition to motherhood (Eastwood, Kemp, & Jalaludin, 2015).

### **The importance of social support**

In a supportive social network, everybody has assistance available from other people who are caring and encouraging; this care and assistance is termed “social support” (Uchino, 2005; Wills & Clark, 1991). The notion of social support is studied in many disciplines such as public health, sociology, psychology, nursing and medicine, and most of them identify that there is a significant relationship between social support and well-being (Thoits, 2011; Umberson & Montez, 2010; Wills & Clark, 1991). The effectiveness of “*social support*” and “*social ties*” for having a good physical and mental health is well established (Berkman, 1995; Thoits, 2011; Uchino, 2005; Umberson & Montez, 2010). Previous research has shown that there is a positive relationship between social support and mental health whereby social support reduces psychological distress during stressful life events (Taylor, 2011; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Social support is also important for promoting psychological adaptation during a chronic high-stress situation like cancer, stroke and HIV (Lewin, Jöbges, & Werheid, 2013; Penninx et al., 1997; Penninx et al., 1998; Turner-Cobb et al., 2002). People with a low level of social support, when compared to individuals who receive a high level of social support, show more psychological symptoms like anxiety and

depression (Langford, Bowsher, Maloney, & Lillis, 1997; Viswesvaran, Sanchez, & Fisher, 1999). Social support can act in two ways, as “*problem-focused*” through providing informational support or advice which solves a problem, or as “*emotion-focused*” that helps adjust emotional responses to a stressful situation (Kashdan, Barrios, Forsyth, & Steger, 2006).

Social ties refer to connections and relationships between members of primary and secondary groups (Thoits, 2011). Primary groups or “significant others” are family members, relatives and intimate friends, while secondary groups are health professionals, organisations and the wider community (Thoits, 2011). In comparison with the secondary group, the primary group is smaller in size, the relationships are closer, the transactions are informal, ties are stronger through spending more time together, members’ knowledge about each other is personal and members cannot easily enter or exit the primary group according to their preferences (Thoits, 2011). The source of social support is important for measuring its influence as a coping strategy (Heaney & Israel, 2008). Social support refers to the assistance that is provided by members of these primary and secondary groups; this assistance can be emotional, informational and instrumental (Thoits, 2011). “Emotional support”, “esteem support” or “appraisal support” (Wills & Clark, 1991), includes love, caring, encouragement and empathy including actions which show the individual that he or she is important for the supportive person (Langford et al., 1997; Slevin et al., 1996). “Tangible support” or “instrumental support” is when people help each other in a direct way through providing financial support, services or goods (Heaney & Israel, 2008; Langford et al., 1997). Informational support includes advice, recommendations, suggestions and information aimed



at helping people to solve their problems (Langford et al., 1997; Wills & Clark, 1991). Companion support is also called “belonging” because it gives the individual a sense of place with a community. It offers companionship in shared social activities (Wills & Clark, 1991), as an example coffee groups for breastfeeding mothers organised by La Leche League provide companion support for new mothers who can breastfeed together and support each other.

There are two supportive groups for an individual in a stressful situation “significant others” and “similar others”, significant others are the people who do not have a same experience of the stressor (e.g. a husband who supports his wife for her breastfeeding), and the similar others or peer support are the people who have the experience of same stressor (the group of breastfeeding mothers in a coffee group). Both members of these groups may provide effective support, but the most effective support will be provided by a significant other who is a similar other as well (Thoits, 2011). An example of a “similar significant other” that is relevant to this research would be a female family member who has experience of successful breastfeeding and provides breastfeeding support.

It is important to note that the provision of instrumental support is expected more from significant others rather than members of secondary groups (Messerli, Silverstein, & Litwak, 1993). For example, it is more appropriate for family and friends to do housework or to look after a newborn than a health professional or doula<sup>70</sup>. There are good reasons for why coping

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<sup>70</sup> Doula is a trained laywoman who supports emotionally and practically pregnant women and their families during the birth and postpartum period. The word of “Doula” is a Greek word and it means to serve other women. Retrieved from: Kiwi Families, for passionate parents. Health and well-being. Health Professionals. Doula. <http://www.kiwifamilies.co.nz/articles/doula/> . Accessed date: 20/01/2017.

strategies associated with instrumental support such as practical assistance including as housework or care for dependent family members, or providing materials should be provided by the significant others to the distressed individual. Firstly, it can reduce physiological upset and secondly it shows how much significant others are caring and supportive of the individual which can boost the self-esteem and self-efficacy of the distressed person (Cohen, 2004). Therefore, the provision of instrumental support by the significant others is an effective stress buffer that can work in two ways, directly through problem solving and indirectly through signalling to the individual that they are an important person for the significant other (Cohen, 2004; Kashdan et al., 2006).

According to the “matching hypothesis”, social support is not always advantageous as it has to be matched with the individual’s wishes and desires (Cohen, 2004; Cutrona & Russell, 1990). It is highly likely that unmatched social support increases the level of psychological stress in the recipient of that support (Cutrona & Russell, 1990; Horowitz et al., 2001). Although research has shown that there are both advantages and disadvantages for social support, there is always a significant relationship between social support and the health benefits for both the supportive person and the recipient of support (Brown, Nesse, Vinokur, & Smith, 2003). According to a recent neuroimaging study, for example, providing support to others increases activations in “*the reward area of the brain*” in a supportive individual (Inagaki & Eisenberger, 2012).

Furthermore, one of the most significant findings within the social support research literature relates to “*gender differences*” associated with caring (Day & Livingstone, 2003; Gurung, 2006; Tamres, Janicki, & Helgeson, 2002). Evidence supports the finding that

women compared to men are more involved in social networks and provide more support to others (Tamres et al., 2002; Taylor et al., 2000; Thoits, 1995). Women, in general, are more qualified than most men in providing social support (Tamres et al., 2002; Thoits, 1995). Also in comparison with men not only do women provide social support, but women also need more social support from others to deal with their problems (Day & Livingstone, 2003; Tamres et al., 2002) as many women consider some situations more stressful than men (Day & Livingstone, 2003). In addition to gender difference in social support, there are also cultural differences in social support (Gurung, 2006). For example, in Asian cultures, the individual belongs to a mutually supportive network, while social support is considered a transaction in European cultures in that a person has to ask for support from others (Taylor et al., 2004). These cultural differences are also more apparent in emotional forms of support than in practical support (Taylor et al., 2004).

Significant others usually want to be helpful and supportive of their loved one. However, they may not have the skills to provide support. Reasons include that significant others may also be distressed because the stressor creates a disruptive situation in their own lives. Hence, the significant others may try to solve the problem as fast as possible without considering all aspects of the stressor (Dakof & Taylor, 1990). Secondly and most importantly, the significant others may have not adequate experience and knowledge to provide informational support or skilled advice to the individual (Taylor, 2007). Therefore, the information or advice that they provide may be inefficient or misguide the distressed person. In this research, for example, most research participants identified that when they experienced difficulties with breastfeeding family members advised them to give up exclusive breastfeeding rather than advising them to seek skilled support or reassuring them that these challenges will be

solved soon. Therefore, it is important that breastfeeding information and advice should be offered by similar others and skilled care providers, such as midwives and lactation consultants, who have enough experience and knowledge of breastfeeding stressors. Alternatively, significant others can spend time with the distressed person and listen to their concerns to show that they can understand the meaning of the stressor. In other words, just by “*being there*”, care and support from the family members can decrease psychological and physical health problems (Thoits, 2011).

Many factors can impact on the decision to breastfeed or bottle feed. However, the more important factors are the attitude and beliefs of the mother and people who are around the mother such as family members and friends (Swanson & Power, 2005). Encouragement and support from the family members are the significant factors influencing the initiation and prolonged duration of breastfeeding especially exclusive breastfeeding (Scott & Mostyn, 2003). The following sections of this chapter consider the impact of breastfeeding support from female family members in general, and the maternal grandmother in particular on exclusive breastfeeding behaviour.

## **Findings**

In this doctoral research, most participants stated that they had a very supportive family; however, few of them had negative comments and discouragement related to breastfeeding from their family members. The key findings of this chapter can be summarised in three themes including the importance of the breastfeeding culture in a family, experienced maternal grandmother as a positive role model, and that forms of emotional and informational

support are more important than instrumental support. These themes highlight the significant impact of family culture on breastfeeding practice.

### **Theme 1. The importance of breastfeeding culture in a family**

Culture could be described as a “*worldview*”, the way that people of a similar ethnicity or nationality see the world, their beliefs, values, norms, roles and shared attitudes. Each generation reconstructs their sociocultural context, passing down their thoughts and beliefs to their children (Good Mojab, 2000). Differences may also be seen within cultural groups as world views are shaped by life experiences, age, socio-economic status, the level of education, religion and geographical location. The relational nature of breastfeeding may be seen in research which has shown that the different approaches to infant feeding methods are mainly cultural rather than based upon individual preferences (Good Mojab, 2000). Family cultural norms and intergenerational differences have been noted in relation to breastfeeding, formula feeding, breastfeeding on demand, and scheduled breastfeeding, which at various times have been normalized in Western cultures. Anthropological perspectives have identified that social pressure to engage in early weaning is one of the most significant factors preventing long-term breastfeeding (Gribble, 2009). Also, if cultural values do not interfere, mothers would continue to breastfeed for between two and seven years (Dettwyler, 1995). Dyke and Williams (1999) identified that breastfeeding problems and early weaning more likely to happen in women who are inexperienced and do not have enough knowledge about breastfeeding before the birth of their child. The relationship between infant feeding practices and family cultural values suggests that if health professionals aim to change the infant

feeding behaviour they must consider attitudes towards breastfeeding within the wider cultural context of the individual.

The breastfeeding culture in a family is important for the choice of infant feeding practice. A girl growing up in a family where family members value and promote breastfeeding, and can observe female family members successfully breastfeeding their children would be more likely to believe that breastfeeding is the only logical method of infant feeding (Dykes, Moran, Burt, & Edwards, 2003; Hoddinott & Pill, 1999; Scott & Mostyn, 2003). However, research has shown that some women from the families where formula feeding was the normal method of infant feeding experienced constant pressure to formula feed rather than breastfeeding. The participants in the Lavender, McFadden and Baker (2006) research complained about their family members who offered them formula, especially when they had difficulties breastfeeding due to lactation problems or shyness (Lavender, McFadden, & Baker, 2006).

Most women in this current research acknowledged their family culture related to breastfeeding, stating that their family members valued their choice of breastfeeding practice, encouraged them and supported them emotionally. In the following narratives Charlotte and Lucy, who exclusively breastfed their babies for six months and Sarah and Sydney who breastfed exclusively for more than five months, speak about support from their family members related to breastfeeding:

*I guess they've breastfed – yeah led by example. I suppose some of them asked are you going to breastfeed, and then when I said yes they were oh yes that's good, that's the best thing. I don't think I could have had anything different than what they said - they were very supportive. There was an expectation – yeah there really*

*was an expectation from everyone that that's what I would do.* (Charlotte, February 2014)

Charlotte spoke about encouragement from family members who had an expectation that she would breastfeed her baby. This comment shows that when all women in a family breastfeed their babies, breastfeeding becomes an expectation and formula feeding is less likely. Lucy also talked about her family and the fact that breastfeeding is also normalised in her family. She said that they could talk about breastfeeding without any feeling of shyness, even her father and her brother encouraged her to carry on breastfeeding and gave her lots of emotional support.

*Yeah we sort of talked about it. My sister had a few little issues but yeah I guess because you get to a point where it becomes fine you actually forget or you forget the pain of labour and you forget those initial weeks where it's all over. I think you'll forget to actually – yeah so luckily I had the support. I've got two sisters in town, my brother, my mum and dad, so everyone did come around once they could see I was in pain. They were like oh yes sorry, it can be a bit like this, and had lots of help and support with carrying on. Yeah they were around and just kept saying supportive, positive things as well – just to keep going.* (Lucy, April 2014)

Lucy considered that this emotional support<sup>71</sup> was effective and encouraging. Both Lucy and Charlotte's narratives highlight the importance of support from significant similar others for encouraging and maintaining breastfeeding. The women in Lucy's family were able to validate her lived experience of breastfeeding through reassuring her that breastfeeding can be difficult and by providing encouragement and advice. Similarly, researchers in a qualitative study of breastfeeding mothers' wishes and desires about the delivery of support for their breastfeeding (Graffy & Taylor, 2005), found that women want to be listened to and receive encouraging advice about dealing with breastfeeding difficulties, especially in the

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<sup>71</sup> "Emotional support", "esteem support" or "appraisal support" (Wills & Clark, 1991), offers love, caring, encouragement and empathy including actions which show the individual that he or she is important for the supportive person (Langford et al., 1997; Slevin et al., 1996).

first few days after birth. They expected to have reassurance and encouragement as well as information about pain and difficulties, including that these issues are not uncommon amongst breastfeeding mothers and that in most cases they will be resolved after a few weeks (Graffy & Taylor, 2005).

Similarly, Sara spoke about the importance of her family attitude towards breastfeeding. She stated that when she breastfed with other female family members, she was very comfortable, and there was not any feeling of embarrassment or discomfort amongst them.

*Just that we're all very open and we breastfeed together and there's no shyness. It's okay to just do it and we don't have to worry about it. (Sarah, February 2014)*

In this family, group breastfeeding is normalised. Research has also shown that most women identify that breastfeeding is a social behaviour and that they should learn how to do it from those breastfeeding mothers around them (Good Mojab, 2000). Moreover according to the companion support or “belonging” theory, this type of support gives the individual a sense of belonging to the community, as it offers companionship in a shared social activity (Wills & Clark, 1991).

Sydney was quite satisfied with the breastfeeding support provided by her mother and other family members.

*I guess naturally I'd just feel 100% comfortable around my mum and family, and I guess because she was quite a big advocate of breastfeeding us when we were babies, I just knew without her having to say, that she was supportive, so yeah I always feel comfortable around. (Sydney, March 2014)*

Sydney spoke about her mother who was “a big advocate of her breastfeeding”. This finding is consistent with the study carried out by Grassley and Eschiti (2008), who found



that women wanted their own mothers to be a breastfeeding advocate for them. It means that they wanted the grandmothers to be involved in promoting and protecting the health and wellbeing of the mother and baby through acting and speaking about their own breastfeeding experiences.

The narratives of these research participants suggest that they had support from their female family members who had experience of successful breastfeeding themselves. These family members were “similar significant others” who were able to provide the most effective breastfeeding support for them (Thoits, 2011).

## **Theme 1.2 Unsupportive family members**

Although most research participants talked about significant support from their family members regarding their breastfeeding practice, some of them complained about family members who underestimated the value of their breastfeeding, offered formula, and discouraged them from continuing exclusive breastfeeding. For example, Emily who exclusively breastfed her son for the full six months talked about the negative comments that she had from her one female family member who did not try to breastfeed because they thought breastfeeding was impractical in their family:

*One of my cousin says oh you won't be able to breastfeed, don't be stupid, no woman in our family can breastfeed, and I am thinking our family is enormous, if people couldn't breastfeed, then how[come] our family is so big, because you know 100 years ago there was not formula and it was only breast milk so obviously we can breastfeed. Things like that, not very helpful. She [her cousin] has got three children and she has got another one due today, I think she tried breastfeeding them but I don't think she tried that hard and I think she just gave up early because just our grandmother didn't breastfeed and other family [members] couldn't breastfeed so just our family must have a defective breast or something. (Emily, April 2014)*

Emily's narrative illustrates the importance of the breastfeeding culture within the family, including the embodied stories that family members tell each other about breastfeeding. Similarly, a qualitative study of 30 Maori women and their families in New Zealand (Glover, Manaena-Biddle, & Waldon, 2007), identified five factors that influenced Maori women to divert from breastfeeding to formula feeding. The most important factors that influenced breastfeeding intention and duration was family/whanau attitudes towards breastfeeding; having close relatives such as a mother or sister as a role model and stories that linked maternal physiology to successful breastfeeding within the family. Participants believed that as they have similar physiology to their mother and sisters it means that if they could breastfeed successfully they can do it too. In this current study one of the research participants who exclusively breastfed her baby for more than four months also linked maternal physiology to successful breastfeeding:

*I suppose before I had my first one she [her mother] told me that she could breastfeed, 'cos quite often if you can't, it's in the family and that sort of stuff. But also talked about other people that haven't been so fortunate, so just thinking about just because she could doesn't necessarily mean I can, and it's not my fault if I can't and that sort of stuff.* (Abigail, October 2013)

Family culture plays an influential role in shaping the form of breastfeeding support provided by significant others as well as the way that the breastfeeding mother responds to this sort of support. In Asian families, for example, decisions about the method of infant feeding is made by significant others who are very close to the mother such as the husband or grandmother. New mothers may also be under pressure to begin early weaning from the breast or to change to formula feeding because of discouraging advice from significant others (Tarrant, Dodgson, & Choi, 2004). In Western cultures where bottle feeding is widespread

and more accepted than breastfeeding due to embarrassment or difficulties with lactation (Bailey, Pain, & Aarvold, 2004), women may give up breastfeeding earlier or make a decision to bottle feed when they are pregnant due to the influence of significant others (Bentley et al., 1999; Guttman & Zimmerman, 2000; Lavender et al., 2006). However, in a breastfeeding culture, as documented in rural areas in Thailand, robust family support for breastfeeding as well as encouraging mothers to have a close relationship with their newborn babies enabled these mothers to breastfeed successfully (Amatayakul et al., 1999).

Overall, breastfeeding culture in a family plays a major role in supporting new mothers to breastfeed exclusively. Most research participants in this current study appreciated their family members' attitudes towards breastfeeding and they spoke about receiving lots of encouragement and support from their family members. Most participants said that they could breastfeed their babies in front of their family members without feelings of shyness.

## **Theme 2. Experienced maternal grandmother as a positive role model**

Breastfeeding could be challenging for some women who need encouragement and support to initiate and maintain successful exclusive breastfeeding for the first six months. The views, experience, skills and knowledge of grandmothers can powerfully shape a breastfeeding mothers' opinions and decisions, regarding initiation and exclusive duration of breastfeeding (Agunbiade & Ogunleye; Grassley & Eschiti, 2008). In addition, maternal grandmothers who have experience of breastfeeding play a pivotal role in supporting their daughters through transferring practical skills and confidence. These grandmothers are also more likely to believe that breastfeeding is the only accepted method of infant feeding (Dykes et al., 2003; Grassley & Nelms, 2008; Hoddinott & Pill, 1999).

Research has shown that favourable attitudes towards breastfeeding are constructed when growing up in a home environment where the mother or other family members are positive breastfeeding role models (Gregg, 1989; Ineichen, Pierce, & Lawrenson, 1997). It has also been demonstrated that women who had been breastfed are more likely to breastfeed their own babies (Riva et al., 1999; Salt, Law, Bull, & Osmond, 1994). In the current research, most participants acknowledged their mothers' breastfeeding experience encouraged them to breastfeed their babies. For example, Kate, Zoey and Morgan who breastfed exclusively for six months and Sarah who breastfed her baby exclusively for more than five months talked about their mothers who breastfed them and their siblings. These participants stated that their mothers were the primary reason for them to decide, initiate and maintain exclusive breastfeeding:

*I think she [her mother] was quite supportive – yeah – yeah – and she told me about her experiences breastfeeding us as well. (Kate, January 2014)*

*Yeah my mother [was the main reason for me to breastfeed], because she breastfed me and my brother as well. Yeah so my mother. (Zoey, December 2013)*

*She [her mother] breastfed four of us, my brother, she fed him longer because he was her the last baby, she breastfed him for a year, I was only breastfed for 4-5 months because I had a little sister. (Morgan, December 2013)*

*Probably my mum [was the main reason for me to breastfeed]. Yeah, I think it was just sort of we never thought about not doing it. It was just going to happen; it wasn't an option. (Sarah, February 2014)*

Sarah said breastfeeding is the only infant feeding method amongst her female family members, and they never considered other alternatives. Similarly, a qualitative study conducted on women from lower socioeconomic groups in the UK, found that key reasons for having confidence in, and being committed to breastfeeding, were constantly witnessing

a successfully breastfeeding mother among family or friends as well as having positive experiences when seeing a breastfeeding mother (Hoddinott & Pill, 1999). Several studies demonstrated that despite younger mothers in the UK believing that “*breast is best*”, they have negative attitudes towards breastfeeding and preferred to bottle feeding as a result of lower exposure to breastfeeding practice as most of them had never witnessed a breastfeeding mother (Dewan et al., 2002; Greene, Stewart-Knox, & Wright, 2003; Gregg, 1989).

Charlotte, a research participant who exclusively breastfed her son for the full six months talked about her mother’s breastfeeding practice. Although her mother had passed away, Charlotte could clearly remember her mother breastfeeding:

*I think there was an expectation that I would breastfeed and my mother breastfed all of us and having a much younger brother – I was 13 or 14 when he [her brother] was born so I remember her breastfeeding him. My mother talked to us a lot about how we were as children and breastfeeding and everything. She talked a lot. And because she had a child – she had my youngest brother when I was 13 – 14 – so she talked about what she was doing and why and how. So I found even though that was a long, long time ago – 30 years ago – a lot of that just sort of came back. You sort of remember stuff, and she was a teacher so she was always – she was probably always educating a bit. Yeah. I think it helps to be around a baby at some stage in your life to be confident - so I didn’t expect to have any problems. It’s only when people started telling me about their problems I thought oh this might not be so straightforward, but it was straightforward yeah. (Charlotte, February 2014)*

Breastfeeding behaviour passes down from mother to daughter as unchanging patterns of infant feeding and as a solid belief. Therefore, girls unconsciously take on their childhood experiences related to child care and infant feeding via observation, modelling and play. For example, little girls play with their dolls and mimic feeding them with a bottle or putting their dolls on their chest and pretending to breastfeed (Good Mojab, 2000). The photograph [Figure 6.1.], shows a little girl pretending to breastfeed her baby doll.



**Figure 6.1.** A little girl pretending to breastfeed her baby doll<sup>72</sup>.

Gribble (2009) has suggested that long-term breastfeeders learn about breastfeeding during childhood through discussion, role play or observation and that this exposure influenced breastfeeding practice in adulthood. Gribble also found that children who were breastfed for a long time, showed a good knowledge of breastfeeding and role-played breastfeeding in their games (Gribble, 2009). As role-play is usually mentioned as a type of learning method for a child who mimics the behaviours of people around them, research has shown that one of the most important factors for preparation for the transition to motherhood is breastfeeding role-play by girls (Edwards, 2000; Gribble, 2009). For a girl, embodied knowledge of breastfeeding can be gained via regularly observing breastfeeding mothers

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<sup>72</sup> Retrieved from: Huffpost Parents, United Kingdom.  
[http://www.huffingtonpost.co.uk/2012/01/10/facebook-brands-photos-of-little-girls-breastfeeding-dolls-obscene-content\\_n\\_7381536.html](http://www.huffingtonpost.co.uk/2012/01/10/facebook-brands-photos-of-little-girls-breastfeeding-dolls-obscene-content_n_7381536.html) . Accessed date: 20/01/2017

around her (Dykes & Williams, 1999; Gribble, 2009). It is evident that a child develops a knowledge of “*what is normal?*” related to infant feeding practice from seeing the dominant method of infant feeding around them (Gribble, 2009).

Most research participants in this current study identified that a key reason for initiating and continuing exclusive breastfeeding was that their mothers breastfed them and their other siblings. For example, 30-year-old Addison who breastfed her son exclusively for five months, spoke about her mother’s breastfeeding practice despite the popularity of formula in New Zealand at that time:

*Well she breastfed, and I think probably from my generation that was actually quite unusual to have a mother that breastfed. And I’ve got younger brothers and sisters so I saw her breastfeeding them so it was just normalised and I didn’t realise that people use bottles. And when I think of my friends’ parents a lot of them – well a lot of my friends have said that their parents bottle-fed and they really doubted them breastfeeding. (Addison, February 2014)*

Research has shown that in the 19<sup>th</sup>-century breastfeeding was the most commonly selected method of infant feeding in New Zealand and the USA. The early 20<sup>th</sup> century was marked by rapid economic, industrial, social and cultural change which greatly influenced the transition to mixed feeding with breast milk and formula. During the mid-20<sup>th</sup> century, artificial feeding was the preferred option of infant feeding as it was supported by health care professionals as well as public opinion. The factors which influenced this shift from breastfeeding to formula feeding in both the USA and New Zealand were the medicalization of infant feeding and the move towards hospital birth (Apple, 1994). Changes that were responsible for decreasing breastfeeding rates from the 1930s to 1960s included improvements in sanitation, dairying practices as well as the availability of the home icebox which made the safe storage of milk and infant formula easier. In addition, formula could be



prepared with evaporated milk which reduced bacterial contamination. In the 1960s the USA had the lowest rates of breastfeeding due to a growing formula manufacturers' market and breastfeeding reached its lowest rate in 1970s in most European countries (Fomon, 2001). Similarly, in the 20th century, infant feeding knowledge developed by medical professionals shaped infant feeding practices in New Zealand (Ryan & Grace, 2001). It is noteworthy that during the entire 20th century there was a strong relationship between medicine and industry, and companies developed the market by incentivising health professionals to distribute formula amongst new mothers who were dependent on medical professionals for monitoring their newborn's health and development (Greer & Apple, 1991). The legacy of this aggressive infant formula marketing is that the grandmothers and aunts of the next generation of childbearing women may have limited breastfeeding knowledge and experience (Good Mojab, 2000). However, in the current research, all the research participants were pro-breastfeeding and had an antenatal intention to breastfeed exclusively for six months. Only a small number of grandmothers had limited breastfeeding experience and could not readily share their knowledge and experience with their daughters in order to support their decision to breastfeed exclusively. Both Julia and Hailey for example who breastfed their babies exclusively for six and three months respectively spoke about their mothers who did not have breastfeeding knowledge and experience to share with them:

*Well, it probably would've been good if she had have breastfed us, especially with my first baby then she might've been able to offer me some advice, yeah. (Julia, February 2014)*

*They're not so helpful to be perfectly honest. My mum didn't breastfeed; she couldn't breastfeed or she didn't. She tried to breastfeed me and she didn't like it, so I went on a bottle. Then she didn't even bother with my sister; she went straight on a bottle. So they [her mother and her sister] don't have any experience to share. They would've been quite happy for me to have used a bottle. Yeah, they're quite*



*different. Mum told me that I should do this; it's not hard to put him on a bottle. Yeah. And not be worried about putting him on a bottle. So, I'd say the opposite of encouraging with breastfeeding to be honest. (Hailey, February 2014)*

It is notable that if breastfeeding is a cultural norm, then in the transition to motherhood women would have reliable sources of support and would receive breastfeeding advice from family members and the wider community (Good Mojab, 2000). However, a grandmother without any previous breastfeeding experience may discourage breastfeeding or recommend formula feeding to her daughter (Franca et al., 2008; Susin, Giugliani, & Kummer, 2005). Julia's and Hailey's narratives also indicate that they felt disappointed that they could not bond with their mothers over the shared experience of breastfeeding. A Brazilian study identified that everyday contact with the grandmother was a primary reason for the early introduction of formula or giving up breastfeeding prematurely (Gil-Monte, 2005; Grassley & Eschiti, 2008). In China (Zhang et al., 2015), researchers carried out a qualitative study of 50 mothers' narratives to understand why the exclusive breastfeeding rate is low in China, and why parents prefer to start formula for their babies rather than exclusive breastfeeding. The study concluded that the perception of "insufficient breast milk" by most research participants was the most important reason for stopping exclusive breastfeeding and that maternal or paternal grandmothers were the main people who reinforced this feeling. The researchers also suggested that antenatal education should provide information about the benefits of exclusive breastfeeding for pregnant women and their families.

International research has shown that grandmothers who do not have sufficient breastfeeding knowledge and experience might mislead their daughters regarding exclusive breastfeeding. In a US study, for example, grandmothers who were not familiar with the latest knowledge relating to the importance of exclusive breastfeeding for six months after birth

(Gartner et al., 2005) were most likely to recommend the giving of water or formula to the newborn which can undermine the breast milk supply of mothers (Grassley & Eschiti, 2008).

Jocelyn and Eva considered that their mothers who did not know enough about exclusive breastfeeding and that this could be a source of tension in their relationship:

*Oh, my baby was having like wind problems , and my mother said to me why you don't give her some boiling water and I said no, and she said why not and I said because that's not the done thing these days, you know, she's just given breast milk that's all she needs, she [ her mother] said back in my day we used to giving boiling water, I said, yes, I know, but time has changed, and she said just give her boiled water! Where is your bottle? I said I do not have any bottles, and then she just sort of started hassling me about that I wasn't looking after my baby probably because I wasn't giving her boiled water and I kind of, I knew she was coming from I kind of a little felt offended that number one that my breast milk wasn't sufficient to take care of my baby and number two that she didn't understand how importantly I see breastfeeding so I think it would be nice if she a little bit more understanding about that. (Jocelyn, March 2014)*

*Yes, probably negative rather than positive, I think only because of I was still breastfeeding my [older] son, my mum sort of [asked] about was I going to breastfeeding both of them, he would take all my goodness, all good milk, that was only concerns that I had from my mum. But also she is a bit naughty, a lot of my peers and birth groups say you need to introduce solids and my mum kept saying some water, some juice and some water for her and a little is good and a little not so much good I think (Eva, February 2014)*

Jocelyn and Eva indicate that their mothers lacked knowledge about exclusive breastfeeding, and this was perceived as undermining and unsupportive. Also, as mentioned earlier, grandmothers want to be supportive of their daughters. However, they may not have the skills to provide support. Therefore, they may try to solve the problem as fast as possible (Dakof & Taylor, 1990). Grandmothers may not have adequate experience and knowledge to provide informational support or skilled advice for their daughters about exclusive breastfeeding (Taylor, 2007). The advice that they provide may misguide breastfeeding

mothers who have an intention to sustain their exclusive breastfeeding practice for six months.

Grandmothers who do not have any breastfeeding experience may use language that undermines their daughters' breastfeeding confidence (Banks, 2003; Bryant, Coreil, D'Angelo, Bailey, & Lazarov, 1992; Grassley & Nelms, 2008). In 2008, an American qualitative study was carried out to understand maternal breastfeeding confidence through listening to new mothers' narratives about their breastfeeding experiences. The women described their breastfeeding confidence as a "*dynamic interaction*" between their expectations, their newborn's breastfeeding behavior, and sources of breastfeeding support which improved or diminished breastfeeding confidence. The researchers pointed out that breastfeeding confidence was central to these new mothers' experiences of breastfeeding, not only when they initiated but also during the entire period of breastfeeding. They identified that maternal breastfeeding confidence was enhanced when the new mothers could create a bond with their newborns through breastfeeding, when they experienced actual breastfeeding and could overcome its difficulties and also when they had a consistent support person who valued their breastfeeding practice and showed them how to breastfeed (Grassley & Nelms, 2008). Likewise, several studies reported that there is a positive relationship between maternal breastfeeding confidence and prolonged duration of breastfeeding for more than one year (Blyth et al., 2002; Dunn, Davies, McCleary, Edwards, & Gaboury, 2006; Dykes & Williams, 1999).

To sum up this section, most research participants in this doctoral research appreciated their mother's successful breastfeeding practice; some could even remember when their mothers

were breastfeeding their siblings. They believed that this childhood experience was the key influence on their decision to exclusively breastfed their babies. Constantly witnessing breastfeeding in the home environment when they were adolescent girls shaped their attitudes related to infant feeding methods. They claimed that their own mothers were a positive role model, with some participants noting that their mothers had up to date knowledge of breastfeeding, and their advice was similar to their health care providers.

### **Theme 3. Emotional and skill supports are more important than practical support**

In the current research, most participants appreciated the emotional and skill support from their mothers. For example, Nicole and Kate who breastfed their babies exclusively for the full six months spoke positively about their mothers who gave them helpful information about La Leche League and breastfeeding on demand. Nicole claimed that her mother was the key support person when breastfeeding her first baby:

*She was very supportive last time, and the only reason I managed to be able to breastfeed last time was because of her. Yeah, this time she was just more in the back ground, I think she was the main reason that I was able to breastfeed my son, on demand... she just wanted to help support me with breastfeeding. She used to be involved with La Leche League. I'm the youngest of four children, and she was involved with La Leche League from when she had her eldest child. And from her experience 'cos she's also helped a large number of women breastfeed over the years. (Nicole, May 2014)*

*Yeah – yeah – and she [her mother] told me about the things like when I was in hospital when I was a baby I was fed sugar water by the hospital and so she had trouble with breastfeeding me. And she said that she called up La Leche and they gave her really good advice so I was encouraged to go to them as well. (Kate, January 2014)*

Both Nicole and Kate acknowledged the skilled support from their mothers about breastfeeding on demand, exclusive breastfeeding and in also linking them to support organisations like La Leche League for breastfeeding.

Several studies have identified that grandmothers have an influential role in breastfeeding intention, initiation and prolonged duration due to their experience, knowledge and attitude towards breastfeeding (Arlotti, Cottrell, Lee, & Curtin, 1998; Barton, 2001; Bentley et al., 1999; McIntyre, Hiller, & Turnbull, 2001). Breastfeeding mothers also tend to ask for information and support related to infant feeding from their own mothers rather than their health care providers (Barton, 2001; Bland, Rollins, Coutoudis, & Coovadia, 2002; Grassley & Nelms, 2008; Heinig et al., 2009). Emotte and Mace (2015), found that when their intervention study provided education and information for grandmothers to support their own breastfeeding daughters, the rate of breastfeeding increased significantly compared to the control group. They concluded that informational and emotional support from grandmothers is more effective than practical support. Likewise, studies show that daily contact with grandmothers or co-residence with grandmothers has an adverse impact on breastfeeding rates due to practical support from grandmothers (Emmott & Mace, 2015; Pilkauskas, 2014; Susin et al., 2005). Therefore, research has shown that providing emotional and informational support from grandmothers has a positive impact compared to practical support (Emmott & Mace, 2015).

Another research participant, Zoey also appreciated her mother's advice about breastfeeding stating that her mother's knowledge about breastfeeding was similar to her midwife:

*Oh I suppose my mother encouraged me to feed on demand – yeah breastfeeding on demand and the midwife said the same thing. Yeah I guess my mother's just encouraged me to breastfeed as long as, you know, (Zoey, December 2013)*

Overall, Nichole, Kate and Zoey were satisfied with the quality of support from their mothers who were strong advocates for breastfeeding and acted as “similar significant others” which is the most effective type of support.

Mila was the only research participant who completely gave up breastfeeding after the first week and started to formula feed her baby. When I asked her about breastfeeding support and advice from her female family members she said:

*I've only got one sister and she doesn't have kids. My mum, I don't really listen to what my mum says a lot, just tune out. She breastfed me and my sister, and I said that I was getting really sore and it was really painful, and she was sympathetic and quite sweet, but she didn't really offer me advice on which way or the other to be honest. I know that she's quite pro-breastfeeding. (Mila, October 2013)*

Mila appreciated the significant emotional support from her mother. However, she was expecting informational support about managing painful breastfeeding from her mother who had breastfed successfully.

According to recent research on the types of breastfeeding support, although emotional and informational support promotes breastfeeding and enhances maternal confidence to breastfeed compared to practical support, they are not influential on mothers who do not have a strong desire to breastfeed (Emmott & Mace, 2015). Several studies have reported the importance of family support for successful and prolonged breastfeeding; they emphasised differences in support and education for breastfeeding (Banks, 2003; Bourgoin et al., 1997; Johnson, Brennan, & Flynn-Tymkow, 1999). These studies claimed that breastfeeding education is essential for successful breastfeeding intention and initiation, and also hands-on support from family, friends and health professionals is necessary for a prolonged duration

of breastfeeding. Johnson et al. (1999), reported that during the first few weeks postpartum the presence of a support person at home who has the ability to provide hands-on and emotional supports for the new mother is the most significant reason that influences on the duration of breastfeeding.

The Millennium Cohort Study (Emmott & Mace, 2015), is an ongoing longitudinal piece of research that covers the whole of the UK involving 18,827 children. This study identified that there was a significant relationship between lower rates of breastfeeding amongst mothers who had higher frequencies of contact from both maternal and paternal grandmothers. The researchers pointed out that, traditionally, husbands and grandmothers provided practical support such as infant care and doing housework to let the new mother just focus on breastfeeding. In developed nations, family support still has a positive influence on breastfeeding. However, from the anthropological perspective, the availability of infant formula in modern populations highlights that emotional support is much more important than practical support which might have a negative relationship with breastfeeding as it enables the substitution of maternal care for a newborn. Another finding from the UK research was that there is a negative relationship between breastfeeding and constant contact with grandmothers and/or an involved male partner who provides practical support for the new mother. The presence of a male partner or grandmothers who only provided emotional support and encouragement increased the breastfeeding rate. Therefore, the researchers concluded that practical support is different from emotional support and emotional support promotes breastfeeding in first world populations significantly. However, the researchers mentioned that as a result of a handful of intervention studies available on the relationship

between breastfeeding rates and emotional and practical support from grandmothers they cannot make a definite conclusion (Emmott & Mace, 2015).

In a study of the mother-daughter relationship during pregnancy and the transition to motherhood, Stenhouse and Letherby (2011), pointed out that practical and emotional support from family members was crucial for the young parents especially during the childbirth period and can result in positive outcomes.

In this research, most participants appreciated the emotional support over practical support from their mothers. Olivia, who breastfed her baby exclusively for six months acknowledged the emotional support from her mother:

*Oh she's just always going on about how lovely it is, and she doesn't hold him for very long so he can be with me in his little place on my chest where he can smell milk, and things like that, and just saying that we're doing a good job, and how are my nipples today and all that kind of stuff. (Olivia, March 2014)*

When I asked some of the research participants about what their mothers did to support their breastfeeding practice some of them answered “*nothing*”, while their mothers did a lot of practical support. For example, Mackenzie and Sarah who exclusive breastfed their babies six months and five months respectively, stated that:

*Nothing [laughs]. Nothing really. She comes and looks after the kids but she knows that I was pretty confident with it and pretty happy breastfeeding. She's pro breastfeeding. So she's made the odd comment to keep going. (Mackenzie, June 2014)*

*Nothing really in particular. She just accepted it - it was just what it was. She comes up and does my housework. She's coming up soon so that she can help with the baby so that I can get housework done because when I'm not feeding the baby won't settle and things like that, so she's really good just with helping in general. (Sarah, February 2014)*



Both Mackenzie and Sarah talked about the instrumental support that their own mothers provided for them which as mentioned earlier is an effective stress buffer that can work in two ways, directly through problem solving and indirectly through signalling to the individual that they are an important person for the significant other (Cohen, 2004; Kashdan et al., 2006). However, Mackenzie and Sarah did not recognise housework and caring for older siblings as practical support for breastfeeding. This highlights the importance of emotional support as well as information and advice for breastfeeding mothers.

Sometimes grandmothers are worried about their own daughters' health and wellbeing. Therefore they may see breastfeeding as a barrier to their daughters getting enough nutrition or rest (Grassley & Eschiti, 2008). However, grandmothers may change their attitude towards breastfeeding practice, if information is given that considers their cultural perspective appropriately (Bezner Kerr, Dakishoni, Shumba, Msachi, & Chirwa, 2008). Addison, Naomi and Jocelyn explained that their mothers worried about their health:

*I don't know if there was a lot of advice because it was my second and I breastfed with the first everybody just assumed that I would breastfeed again. Again probably it was mostly just about my health, making sure that I was healthy, so if I was going to breastfeed that I would have good milk and a good supply so that wasn't an issue. That all kind of starts once baby's born I suppose. (Addison, February 2014)*

*She [her mother] told me about how I should look after myself like eat well eat a lot of fish soup [in China is kind of food that after delivery we eat for increasing of milk]. (Naomi, November 2013)*

*She [her mother] always hassling me about my weight and she says less breastfeeding and more lose weight, and I say, yes mum! (Jocelyn, March 2014)*

The most important aspect of breastfeeding support from the grandmother is valuing breastfeeding; mothers do not expect grandmothers to support breastfeeding in the same way

as a health professional. However, they want advocacy, encouragement and emotional support from their mother particularly when initial breastfeeding issues arise (Grassley & Eschiti, 2008).

When I asked breastfeeding mothers about what they wished their mothers said or did to support their breastfeeding, most participants said “nothing” and they did not wish their mothers to support them differently. As an example, Lillian who exclusively breastfed her baby for the full six months said: “*Nothing, I don’t think she could have done anything differently*”. (Lillian, April 2014)

Sydney who exclusively breastfed her baby more than five months also talked about her supportive mother:

*I don’t think she could have done anything else yeah. I found her very helpful and supportive really and I knew I could ask her anything, and she’d be honest and supportive as well if I needed to.* (Sydney, March 2014)

Additionally, significant others’ attitudes are important in decision making related to infant feeding practices. These significant others can be a husband or maternal and paternal grandmothers. However, further qualitative research should be done to understand how significant others should support the breastfeeding mother effectively (Aubel, Toure, & Diagne, 2004; Grassley & Eschiti, 2007).

Content analysis of the qualitative data from a study conducted in the USA identified that breastfeeding mothers needed and wanted their own mothers to support their breastfeeding practice. The five themes emerged, “*valuing breastfeeding*”, “*loving encouragement*”, “*acknowledging barriers*”, “*confronting myths*” and “*current breastfeeding knowledge*” (Grassley & Eschiti, 2008). Similarly, in the current research some participants also expected

their family members, particularly their own mothers to value breastfeeding and encourage them to breastfeed, some of the interview extracts from participants can be briefly shown as follows:

*I wish she would've actually been more positive about it. I think because she couldn't or didn't she was just like it doesn't really matter, so she didn't want to encourage me. I don't know. She just doesn't see the point in it. I don't think she sees the benefits of it, because nothing's wrong with me because I was bottle fed. She says that quite a lot – nothing's wrong with you and you were bottle fed. So I don't know. (Hailey, February 2014)*

*Well, it probably would've been good if she had have breastfed us, especially with my first baby then she might've been able to offer me some advice, yeah. (Julia, February 2014)*

Both Julia and Hailey explained that they needed encouragement and support from their own mothers, but their mothers were not a suitable source of support for them because they did not have a successful experience of breastfeeding themselves. Hailey's mother actively discouraged her and suggested formula for her baby. Scottish research on breastfeeding mothers has also found that the role of maternal grandmothers was extremely important. Women especially who were less committed to breastfeeding gave up breastfeeding very early in the absence of approval or emotional support from their own mothers (Scott & Mostyn, 2003).

Emily and Kate two research participants who breastfed their babies exclusively for the full six months also spoke about their family members who told them about difficulties and pain of breastfeeding when they were pregnant:

*Maybe not telling me how painful and difficult it is when I was pregnant, because I haven't found it painful or difficult but it was a bit encouraging that just was her experience of it, so you know she just is speaking from her own experience and that's ok but we are lucky that I haven't found it painful. (Emily, April 2014)*

*...Oh maybe some of them telling me their negatives stories about how difficult it was, maybe I didn't really need to hear about that. (Kate, January 2014)*

Both Emily and Kate were not satisfied with negative information provided by their family members which they considered to be discouraging or unnecessary advice. They had an expectation that instead of making negative comments family members would encourage them and talk about positive things to support their decisions related to breastfeeding. On the contrary, a qualitative study of women's wishes related to breastfeeding support, showed that women wanted more detailed and accurate information about breastfeeding. Women claimed that they were unprepared when they did not have realistic and specific knowledge about pain and difficulties of breastfeeding when they were pregnant (Graffy & Taylor, 2005). However, research has also shown that reassurance and encouragement is very helpful for maintaining breastfeeding (Dykes & Griffiths, 1998; Tarkka, Paunonen, & Laippala, 1999). For example, reassuring mothers who are uncertain about the realities of breastfeeding is better than talking about the pain and difficulties of breastfeeding prior to the birth of the baby. The importance of this kind of support in the initiation and duration of breastfeeding was also demonstrated in research which mentioned the advantages of esteem support or appraisal support for breastfeeding (Dennis, 2003; Dykes & Griffiths, 1998; Dykes et al., 2003; Tarkka et al., 1999).

In summary, in this current study most participants had emotional and informational support from "similar significant others" including their own mothers who had history of successful breastfeeding. Participants considered that extensive emotional support influenced their breastfeeding practice compared to tangible and practical support which was

unacknowledged as a source of breastfeeding support. A small number of participants had negative and discouraging comments from their significant others related to their exclusive breastfeeding practice, but this was generally seen as a source of annoyance and did not interfere with their intention to continue breastfeeding. These findings have shown that six months exclusive breastfeeding practice is a relational behaviour which is influenced by opinion, attitude and the culture of the social and familial networks around the mother.

## **Conclusion**

The findings of the current research suggest that some women in New Zealand, as indicated by those who contributed to this study, experienced greater breastfeeding support from their family members, especially from their own mothers. However, some of them experienced negative attitudes towards breastfeeding or experienced discouraging comments. In this study, research participants were highly motivated breastfeeding mothers. However, they claimed that they needed support and encouragement from the significant others to maintain exclusive breastfeeding for six months. There are many stressors during the postpartum period for a mother such as fatigue, emotional tension, the experience of traumatic birth and lactation issues including breast pain. However, social support may promote maternal self-efficacy, which is an important coping strategy for sustaining six months exclusive breastfeeding. Therefore, after thematic analysis of the data the theory of stress, coping strategies and social support proposed by Thoits (1995), was applied to interpret the findings of this chapter related to the importance of social support from female family members.

Moreover, the findings of the current chapter showed the research participants acknowledged the importance of a breastfeeding culture in their family alongside emotional and skills support from their family members especially their own mothers. Most research participants appreciated their own mother's breastfeeding experience with some talking of childhood memories about their mothers' breastfeeding practice. Participants also mentioned that their mothers were their positive role models in infant feeding practice. The next chapter considers the significant role of male partners as well as other male family members in support of breastfeeding mothers.

## ***Chapter 7: Breastfeeding Support from Male Family Members***<sup>73</sup>

### **Introduction**

Little research has been done to investigate the influence of male family members' support for breastfeeding. Therefore, this chapter aims to explore the impact of male partner and other male family members on the initiation and duration of exclusive breastfeeding. The current chapter (chapter seven) and the previous chapter (chapter six) focus upon family support for exclusive breastfeeding practice. In both chapter six and seven the theory of stress, coping strategies and social support proposed by Thoits (1995), is considered for supporting the findings resulting from thematic analysis of the interview transcripts. In the current chapter, most participants claimed that they had very supportive male partners who provided emotional and practical support for them to breastfeed their babies exclusively for a prolonged duration. Also, some participants in this current research received crucial breastfeeding support from male family members who were not the father of the baby. Comments from these participants suggest that some New Zealand men are actively involved in supporting breastfeeding in their nuclear and extended families. Several participants also

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<sup>73</sup> Portions of this chapter appeared in Breastfeeding Review Journal and reprinted by permission [Appendix 18]: Alianmoghammad, N., Phibbs, S., & Benn, C. (2017). New Zealand women talk about breastfeeding support from male family members. *Breastfeeding Review*, 25(1), 35-44. Retrieved from <http://search.informit.com.au/documentSummary;dn=704846480980786;res=IELHEA>

suggested that the support of male family members was as effective as support from female family members.

In the previous chapter, some women talked about struggling with a range of stressors during the early weeks of their postpartum period including lactation issues. However, their significant others particularly their own mothers provided emotional and practical support for them to cope with those problems through boosting these mothers' self-efficacy. The current chapter continues considering the theory of stress, coping strategies and social support proposed by Thoits (1995), to illuminate the findings of this chapter related to the importance of social support from male family members.

The variety of social supports were discussed comprehensively in the previous chapter of this thesis where the theory of stress, coping strategies and social support proposed by Thoits (1995), was applied to illuminate findings related to the importance of social support from family members. As mentioned in previous chapter, there are important social support sources for a new mother during the stressful postpartum timeframe including "significant others", "similar others" and "similar significant others". Similar significant others are the relatives (e.g. grandmothers or other female family members) who have the experience of the same stressor and they can provide the most effective social supports (Thoits, 2011). The male family members who support the new mothers to breastfeed their babies successfully, are an example of support provided by significant others who do not have the same experience of a stressor. For example, male partners who support their female partners for infant care and breastfeeding.



Although male family members did not experience the same stressor as the participants did, they played very important role in supporting these breastfeeding mothers. For example, by spending time with these women and showing them that they can understand their pain or the meaning of the other stressors. According to Thoits (2011), significant others have the ability to provide care and support for their distressed loved ones just by “being there”, which it can decrease mental and physical health problems (Thoits, 2011).

## **Background**

Research has shown an increased interest in the critical role that family members play in supporting the breastfeeding mother (Furman et al., 2015). For heterosexual women support from a male partner, including a favourable attitude towards breastfeeding was considered more important than support from a health professional (Bar-Yam & Darby, 1997). A literature review of studies on breastfeeding in developed countries including Canada, Australia, the United State and Europe (Callen & Pinelli, 2004), found that there is a significant relationship between women’s socioeconomic status and breastfeeding initiation and prolonged duration. Being married and having an emotional and financial support from a male partner were the most important reasons for prolonged duration of exclusive breastfeeding (Dennis, 2002; Lande et al., 2003; McLeod, Pullon, & Cookson, 2002; Taveras et al., 2003).

In 2009, the National Breastfeeding Advisory Committee conducted a literature review to identify the influential factors on protecting, promoting, and supporting breastfeeding in New Zealand in order to provide a national plan of action for breastfeeding (Ministry of Health, 2009). There were several identified research gaps in this literature review that

include qualitative research involving male partners and fathers as well as research on mothers, fathers, family/whanau, friends and wider community narratives about breastfeeding (Ministry of Health, 2009).

There is a positive relationship between men's breastfeeding knowledge and their attitudes toward breastfeeding (Freed, Fraley, & Schanler, 1992). Studies on breastfeeding have also identified the influential role of fathers in regards to decision-making about breastfeeding; whenever breastfeeding education was directed at fathers the rate of breastfeeding increased significantly (Arora et al., 2000b; Bar-Yam & Darby, 1997). However, some fathers may not support breastfeeding due to concerns that an inability to share infant feeding may interfere with their relationship with the new baby (Scott & Binns, 1999).

Psychologists have noted that throughout the childbearing process, each parent will experience a transformation of self during this emotional and psychological journey (Koehn, 2002). For men, the transition to fatherhood is much more challenging than their female partners' transition to the motherhood because a man's journey is not outwardly indicated by bodily changes alongside medical observation or social recognition of pregnancy (Katz-Wise, Priess, & Hyde, 2010). Researchers have also demonstrated that parenting skills are essential for a smooth transition to parenthood (Draper, 2003) and that a successful transition to parenthood is fundamental to the development of positive relationships between parents and children as well as long term family wellbeing (Jones & Prinz, 2005).

Cultural views and attitudes may also discourage breastfeeding support from men. Hegemonic masculinity (Connell, 1995), for example, which is based on the idea of the man

as a breadwinner and disciplinarian (Fishbein, 1990), positions caring roles and responsibilities within the family as un-masculine. Sets of understandings about hegemonic masculinity have shaped traditional beliefs that support for women practically or emotionally during the childbearing journey are unmanly, while the nurturing and rearing of children, especially infants, belonged exclusively to mothers (Connell, 1995). Male roles within the family are changing as old ideas about hegemonic masculinity are being challenged (Fishbein, 1990).

In some societies, negative male perceptions of breastfeeding are another barrier to exclusive breastfeeding. For example, research carried out in the UK and the USA has identified that men regard breastfeeding in public as unacceptable, embarrassing (Pollock, Bustamante-Forest, & Giarratano, 2002), humorous, related to sexual activity and inappropriate as it may trigger predatory male responses (Henderson, McMillan, Green, & Renfrew, 2011).

The influence of family, including support from the male partner, on the intention, initiation and duration of exclusive breastfeeding is well established (Emmott & Mace, 2015). However, little research has been done to evaluate the influence of breastfeeding support from male family members who are not the father of the infant. This chapter explores the views of women interviewed regarding male partner and male family members support for breastfeeding.

## **Findings**

After the thematic analysis of the interview transcripts, five themes were identified. Male partners did not have enough knowledge about breastfeeding, and male partners wanted to

share infant feeding. Participants received emotional and practical support from their male partners. Male family members supported breastfeeding in public and some participants received the crucial breastfeeding support from their male family members. Encouragement and support from male family members who were not the women's partners was an unexpected finding because the interview schedule did not intend to explore breastfeeding support from male family members and women spoke about this kind of support voluntarily. Each of the key themes relating to male family member support is presented using verbatim quotes extracted from the data followed by discussion. The theory of stress, coping strategies and social support proposed by Thoits (1995), is integrated to the discussion to illuminate the findings of this chapter. These results highlight the importance of male partners and other male family members' support for breastfeeding.

### **Theme 1. Fathers do not have enough knowledge about breastfeeding**

The majority of the research participants recounted that their male partners believed that breastfeeding was superior to formula feeding. Some of the women talked about how their partners encouraged them to breastfeed. Naomi started to formula feed her son from the first week and then gave it up after five days to restart breastfeeding again. She talked about the breastfeeding advice that was provided by her husband:

*Sometimes I'm just not very determined, and sometimes I want to give him a little formula, because as a mum, I'm always worried he is not getting enough milk and then he [her husband] says oh no, no, don't put him on formula because it is much easier to drink from the bottle than the breast, so he would get used to formula quickly. He tells me not to do formula feeding but it is 'up to you'. (Naomi, November 2013)*

Naomi reports that her husband reassured her when she worried about not having enough milk for their baby. The information that Naomi's husband provided, about how bottle

feeding may interrupt breastfeeding, suggests that he had actively read up on the subject. Interestingly, when I asked her “what do you wish your husband would have said or done to support you to breastfeed?” She answered she wants her partner to be assertive, and force her to choose exclusive breastfeeding, the infant feeding method that he preferred:

*I wish he was bossy, I don't know, I think, I am too bossy. Like I decide everything, if he was like dominant, like oh no you have to do it, maybe I have to listen to him [and didn't put my baby on the formula]. (Naomi, November 2013)*

Research has demonstrated that the male partner is a major source of support for a breastfeeding mother (Bar-Yam & Darby, 1997; Scott, Binns, & Aroni, 1997), and that the positive attitude of male partners towards breastfeeding has an influence on initiation and duration of breastfeeding (Scott et al., 1997). Hailey also spoke about how much her husband knew about the advantages of breastfeeding compared to formula feeding. She told me that her husband is quite keen on breastfeeding:

*He doesn't know a lot 'cos this is his first child, and my son is from a previous relationship. But he knew that it was really good for babies and that he really wanted me to be able to breastfeed. He was quite keen on it. He was very encouraging. Just talking about how it is the best food for baby. Yeah, and that it's so easy compared to bottles. (Hailey, February 2014)*

Charlotte, who breastfed her son exclusively for six months, stated that her husband was a stronger advocate for breastfeeding than herself. He had childhood memories of breastfeeding as a toddler and was against bottle feeding even with expressed breast milk:

*He was adamant that he only be breastfed and he didn't like the idea of using the bottle even for expressed breast milk ... I mean I agreed with him but he's probably even more 'definitely have to breastfeed' about it than I was. Yeah he remembers breastfeeding and he talked to his mum about it [definitely, he was breastfed for more than two years]... (Charlotte, February 2014)*

Naomi, Hailey and Charlotte's husbands were well informed about breastfeeding, and this enabled them to provide practical advice as well as emotional support and encouragement to their partners. However, most research participants reported that although their male partners believed that "breast is best", they did not have any advice for their partners before the birth of the baby related to the infant feeding methods. When women who contributed to this research were asked what kind of advice they had about breastfeeding during pregnancy from their male partners, most of them answered: "Nothing".

Madelyn and Maya who breastfed their babies exclusively for five and six months respectively, said that:

*He expects me to know everything. (Maya, October 2013)*

*He also assumed that I would be able to manage it. (Madelyn, October 2013)*

Previous research has demonstrated that some men might think that women do not need breastfeeding support because they consider that it is natural (Henderson et al., 2011; Sherriff, Hall, & Pickin, 2009). An Australian qualitative study reported that the research participants, who were parents of preterm infants, saw breastfeeding as a "natural" practice that all mothers had the ability to do as it is something that naturally happens (Sweet, 2008). Even women expect breastfeeding to happen naturally following the birth and may be disappointed and upset when things go wrong (Sherriff et al., 2009). In the current study, some of the research participants expressed similar ideas related to the expectation that breastfeeding would be natural:

*He knows how it [breastfeeding] is. It was the same again with [this baby] – it's just what I do and he understands that and knows that that's how it is – that I'm just a breastfeeding mother and so he knows that. He thinks when he sees people bottle feeding little babies he thinks it looks a bit weird because he's so used to me feeding. (Olivia, March 2014)*

*No [Laughs]. I guess it was just an unsaid thing like I knew I was going to breastfeed and he knew I was going to breastfeed. (Sydney, March 2014)*

*I guess he knows that I know quite a bit about it. (Lillian, April 2013)*

*It was just expected that that's what I would do because I did it last time. (Nicole, May 2014)*

Research has shown that many men consider that it is not their place to decide the method of infant feeding (Mitchell-Box & Braun, 2013). For example, in the current research Mackenzie and Abigail spoke about their male partners who were not involved in decision-making about the method of infant feeding:

*He stays out of it. (Mackenzie, June 2014)*

*No [laughs] he just leaves me to it. (Abigail, October 2013)*

These statements show that both Mackenzie and Abigail's male partners consider breastfeeding as an instinctive, natural and a feminine ability. Therefore, they stayed out of the decision making process around the infant feeding practice of their female partners. Research has shown that understanding about breastfeeding as a natural biological process has the potential to put undue pressure on women who experience difficulties feeding their babies (Shakespeare, Blake, & Garcia, 2003).

According to Williamson et al. (2012), there is a significant number of women who have difficulty with breastfeeding, especially in the first few days after birth. Women, who felt that they had to work at breastfeeding, reported that they experienced discrepancies between the difficult reality and cultural images of breastfeeding as "natural" and easy to do, while men tended to view women's ability to breastfeed as instinctive, and therefore something that

does not need to be taught. Male understandings of breastfeeding did not come naturally, and they sought to educate themselves (Williamson et al., 2012).

Emily who exclusively breastfed her baby for the full six months spoke about her husband's lack of knowledge about, and willingness to support, breastfeeding:

*No, he is probably the pretty coolest man, he was just: "yeah, yeah breastfeeding, right, just do it, right, great, awesome, I do not have any idea about breastfeeding but just do it, right, it's a good thing". He is very supportive but he doesn't know anything about it, just 'it's the best thing for baby and you need to do six months' and all the stuff. He is very, very supportive which is great. (Emily, April 2014)*

Emily identifies that her partner was unfamiliar with breastfeeding but used basic knowledge about efficacy and an agreed upon time frame to endorse this method of infant feeding. The findings of this research seem to be consistent with previous research which found that male partners do not have enough knowledge and skills about child care especially breastfeeding (Nelms, 2004). A recent systematic review (Mitchell-Box & Braun, 2013), concluded that although "male-targeted education" is an important factor for increasing the rate of breastfeeding initiation and exclusive duration, research on the delivery of this kind of education is limited and further investigation should be done to determine how male-targeted educational interventions should be delivered (Mitchell-Box & Braun, 2013).

When Eva and her partner had their second baby, she was still breastfeeding her oldest son who was nearly four years old at the time. Eva was accompanied by her male partner when she went to a breastfeeding class recommended by her LMC midwife for her second child.

*He was really good he even came to the breastfeeding class with me and he had the pretend boobs that they put on the men and he had the baby doll and everything, he was so good, he had no worries, he knew what I was doing which was really nice. I*



*know a lot of the girls on my online group that had no support from their partners and things like that and so yeah I've been very lucky because he doesn't have any feelings either way. I think if I had chosen formula feeding he probably would've been supportive of that as well. He's just that type of guy, so yeah, it's nice that he's been so happy for me to just keep going... I've noticed this time around he's more informed and he quite often said things to me about how good it is that she is getting things that formula doesn't have in it. I think he's getting more informed as well that is really good. (Eva, February 2014)*

Comparisons between the support given by her partner following her first and second child enabled Eva to identify that breastfeeding education facilitated her husband becoming more informed and educated than previously. Men may face difficulties during the transition to fatherhood (Draper, 2003; StGeorge & Fletcher, 2011). Men who feel excluded or unqualified during the childbirth process (Deave, Johnson, & Ingram, 2008; StGeorge & Fletcher, 2011), or have negative memories of their own fathers (Henwood & Procter, 2003; StGeorge & Fletcher, 2011), may struggle with their identity, practices and roles as fathers (Genesoni & Tallandini, 2009; StGeorge & Fletcher, 2011). Including expectant fathers in antenatal and parenting classes may help them to gain skills that will enable them to transition successfully to fatherhood. However, men identified factors that were outside their control such as the lack of social spaces and formal support services for new fathers which contributed to feelings that they were being “*left out*” during the childbearing process (StGeorge & Fletcher, 2011).

Previous research has shown that although fathers believe that breastfeeding is best, they lacked information and were enthusiastic to learn more about breastfeeding (Freed et al., 1992; Henderson et al., 2011). Intervention studies show that breastfeeding education for fathers enabled them to support their breastfeeding partners. Consequently, the breastfeeding

rates among these families increased significantly (Pisacane, Continisio, Aldinucci, D'Amora, & Continisio, 2005; Wolfberg et al., 2004).

In recent years both parents have been encouraged to receive education and preparation for a smooth transition to parenthood via antenatal classes managed by the health care professionals. However, it has been noted in overseas research that the antenatal education fails to meet the needs of fathers (Donovan, 1995); that many educational materials are not appropriate for fathers (Goodman, 2005), and that most fathers are not satisfied with the current antenatal education (Lee & Schmied, 2001; StGeorge & Fletcher, 2011). According to Fletcher et al. (2004), antenatal education prepared expectant fathers only for the childbirth event, while they needed education related to all the changes they would experience afterwards in their lifestyle and the relationships with their partner and the newborn. Therefore, from the existing literature, it can be concluded that the education for expectant parents during the pregnancy failed to address men's needs, feelings and concerns (Barclay, Donovan, & Genovese, 1996; Nolan, 1994).

## **Theme 2. Fathers want to share infant feeding**

The second theme extracted from the interviews related to an expressed desire for men to share infant feeding. In the current research, Mila was the only research participant who gave up breastfeeding completely at one week and started formula feeding her baby. In the following interview extract Mila links bottle feeding to convenience, sharing care, being involved and helping out:

*He [her husband], enjoys being involved so I think he really... enjoys being able to sort of feeding her and be involved and help out, which is nice. Yeah, that's one of the advantages I think of bottle is you can share the feeds and it feels like he's actually spending some time with her. (Mila, October 2013)*

In Mila's narrative bottle feeding is privileged over bathing, nappy changing and playing as a mechanism for establishing a relationship with the baby and as a way for her partner to express fatherhood. Research has shown that many fathers want to be identified as having a unique role and to share in parenthood (Halle et al., 2008; Heath, Tuttle, et al., 2002). Men believe that they are not attending the birth just as a support person for their partners, but that they have their own rights as a father (Halle et al., 2008). Men who lack information about the benefits of breastfeeding, or have concerns about feeling left out of feeding, may negatively influence breastfeeding initiation and duration (Bar-Yam & Darby, 1997). A New Zealand study based upon interviews with 74 European mothers identified that formula feeding was regarded as convenient because it allowed male partners to feed their infants (Heath, Tuttle, et al., 2002). Accordingly, Bennett (1998) declares that men feel neglected and undervalued members of the family. Because men are an essential source of support for mothers and infants in the family, educators should consider fathers' needs for effective preparation for their new role. If the health care professionals do not consider men's needs and do not recognise the crucial role of fathers, then everyone, mothers, fathers, health care professionals and the wider community, will miss out during the childbearing process and parenting (Nolan, 1994; Stgeorge & Fletcher, 2011).

In this research, Sarah and Kate, who exclusively breastfed their children for five and six months respectively, talked about their male partner's desire to share the feeding:

*He [her husband] didn't want me to breastfeed actually. He wanted me to for a little bit but he wants to share the feeding so he wanted her to be on a bottle so that he could do some too. (Sarah, February 2014)*

*He said oh you should express some so I can bottle feed her and I was like no – no way. (Kate, January 2014)*

Men play an important role in the family related to decisions around the method of infant feeding (Arora et al., 2000b; Wolfberg et al., 2004). Some fathers may not advocate for exclusive breastfeeding due to concerns related to their relationship with the new baby as they cannot share infant feeding and their partners inability to take full responsibilities for doing all of the household chores (Dennis, 2002; Dodgson et al., 2002; Moore, Anderson, & Bergman, 2007b; Scott & Binns, 1999). In research on breastfeeding whenever the breastfeeding education was directed at fathers the rate of breastfeeding increased significantly, which showed the influential role of fathers regarding decision making about breastfeeding (Arora et al., 2000b; Bar-Yam & Darby, 1997). For example, in the following interview extract research participant Eva, recognised that her husband wanted to share the feeding, and went on to acknowledge her husband's support for her decision to breastfeed exclusively and not to bottle feed:

*He was also very supportive of our decision not to express. He didn't have that ability to bottle feed our son, which I know some guys want to be able to do; they want to feed their babies and he was very supportive of that just really very good, just leaving me to just do exclusive breastfeeding. (Eva, February 2014)*

Jocelyn and Charlotte who exclusively breastfed their babies for five and six months respectively, also spoke about their male partners' wishes around feeding; they claimed that their male partners would breastfeed if they could:

*Considering the fact that he can't physically do it himself, he is supplementing [providing household support] and he is just supportive. He would breastfeed if he could and I am sure, and I know he was quite sad when I said to him that I want to exclusively breastfeed because I think he wanted to be able to feed her as well, but I'm not willing for that to happen. (Jocelyn, June 2014)*

*Actually, even just yesterday he said I wish I could breastfeed. It was like I don't see why men couldn't [laughter]. Yeah, he recognises that it's a really special thing to do and wishes he could take part too. Knowing that he believes that and can see that is really supportive... (Charlotte, February 2014)*

In recent years both parents have received education and preparation for a smooth transition to parenthood via antenatal classes managed by health care professionals. However, it has been noted that many of the educational materials are not suitable and appropriate for fathers (Goodman, 2005; Lee & Schmied, 2001) and that most fathers are not satisfied with the current antenatal education (StGeorge & Fletcher, 2011; Svensson, Barclay, & Cooke, 2006).

Janice Goodman (2005), reviewed the seven qualitative studies which explored the narratives of new fathers, and concluded that health care professionals should enhance the new fathers' confidence in infant care. She stated , *"Fathers-only classes may be offered in which men can develop competence and confidence away from their partner whom they may perceive as more capable"* (Goodman, 2005, p. 190).

Therefore, from the existing literature, it can be concluded that the education for expectant parents during the pregnancy failed to meet the men's needs, feelings and concerns (Barclay et al., 1996; Nichols, 1993; Nolan, 1994; StGeorge & Fletcher, 2011).

Another way for getting knowledge and support related to fatherhood is the Internet; the Internet provides peer support for men via e-mail, videos and discussion forum websites (Hudson, Campbell-Grossman, Keating-Lefler, & Cline, 2008; Lagan, Sinclair, & Kernohan, 2007; StGeorge & Fletcher, 2011). The Internet has many advantages for providing emotional

support (StGeorge & Fletcher, 2011), self-confidence (Hwang et al., 2010; StGeorge & Fletcher, 2011), encouragement (StGeorge & Fletcher, 2011), and the exchange of information (Dickerson, Flaig, & Kennedy, 2000; StGeorge & Fletcher, 2011) for men. Although, the majority of users on the Internet who interact via parents' support groups are women (Larsson, 2009; Sarkadi & Bremberg, 2005; StGeorge & Fletcher, 2011), recently, fathers have also started to use the Internet for exchanging information and getting peer support (StGeorge & Fletcher, 2011). However, research on the patterns of interaction amongst fathers on the internet for having a smooth transition to fatherhood is limited (StGeorge & Fletcher, 2011).<sup>74</sup>

### **Theme 3. Emotional and practical support**

Previous research suggests that the active participation of men in support of their partners' breastfeeding is a significant factor associated with having a successful breastfeeding experience (Cohen, Lange, & Slusser, 2002; Earle, 2002; Swanson & Power, 2005). Most research participants in this current study said that their male partners were emotionally and practically supportive of breastfeeding, and they reported that this source of support was effective in encouraging them to breastfeed their babies. Lucy, who breastfed her baby exclusively for six months, stated that her male partner was very upset when she had pain with breastfeeding, but he encouraged her to continue breastfeeding:

*He found it really hard to see me cry and know that I was hurting and not happy about things. But he just kept talking me through it as well and just told me I was doing a good job. (Lucy, April 2014)*

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<sup>74</sup> Chapter 9, discusses the breastfeeding support through social media.

In this study, the participants were highly motivated and aspired to breastfeed exclusively for six months postpartum even before they birthed. Therefore they employed a range of responses when facing pain or difficulties during their breastfeeding journey, one of them gave up breastfeeding completely and started to formula feed for her baby while others began to mix-feed using formula and breast milk prior to six months. Mothers who considered the six-month exclusive breastfeeding goal as an ideal tried to overcome difficulties and pain; most of them had a supportive male partner who encouraged them to achieve their goal. Ashley who exclusively breastfed her baby more than four months talked about her husband who encouraged her to continue breastfeeding exclusively and not to give up.

*He was always very supportive. He did things like when my milk came in and bub [the baby] was having trouble latching and stuff, he'd go and get me a hot flannel or something that I needed to help me. Bless him, he'd always ask if there was something he could do. A lot of the time there obviously wasn't, but he was a lot of emotional support really. ..., just encouraging me not to give up if I was having a hard day. (Ashley, February 2014)*

The findings of this research are similar to a New Zealand study (Abel et al., 2001), which identified that male partners were the primary source of support emotionally and practically for European mothers over the age of 25 years old<sup>75</sup>. Men also supported their partners during the postpartum period by providing food, managing household responsibilities as well as older siblings so that the new mothers could focus on resting and breastfeeding (Abel et al., 2001). Lillian who exclusively breastfed her baby for six months talked about the practical support provided by her male partner:

*He [her husband] would look after the other two kids and get them playing or outside. ..., he does a lot of housework and will cook dinner. He still does that. If*

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<sup>75</sup> Most research participants in this current study also are European and older than 25 years.

*he gets home and I'm breastfeeding, he'll just do dinner and he'll do the dishwasher or the laundry or whatever needs to be done. (Lillian, April 2014)*

Recently researchers conducted a qualitative study involving in-depth interviews with 19 women from an urban area in the north-eastern USA, after analysing the interview transcripts, ten themes emerged which showed that practical and emotional support from husbands or partners were very beneficial for mothers especially during a time of unexpected breastfeeding difficulties. The women also stated that the benefits of their male partners' support were much greater than the benefits from advice provided by friends, lactation consultants or health professionals. The authors concluded that women acknowledged the support from their partners in the form of encouragement and understanding in order to maintain breastfeeding continuation (Nickerson et al., 2012).

Most participants who exclusively breastfed their babies for the full six months talked about the support provided by their male partners. For example, Kaylee said that her husband did not say anything about bottle feeding which was encouraged her to focus only on breastfeeding.

*He supported me, I don't know, he didn't say about bottle-feed, he says if you wanna breastfeed then you breastfeed, yea he does just everything, in the middle of night he gets the baby up and gives the baby to me, then I feed the baby he burps the baby. (Kaylee, December 2013)*

Kaylee also acknowledged her husband's practical support especially in the middle of night. Similarly, Eva appreciated her male partner's practical and emotional support in the night.

*Just very supportive, just to say you know don't worry about what everybody else says you just do your own thing, you keep going and he bring me waters and all the baby in the night if I need to and things like that. (Eva, February 2014)*



Eva also spoke about her husband who was very supportive of breastfeeding. Eva's husband encouraged her to breastfeed and advised her not to pay attention to discouraging comments from other people. Emily, also talked about her encouraging husband.

*He is just very encouraging and supportive.... and he has just told me from the start, now your job is breastfeeding, so you just sit in the couch and feed and sleep and eat and I'll do all the other housework and do the cooking and do everything else. Just don't worry about that stuff and you just feed the baby, so he is very supportive.* (Emily, April 2014)

Emily's husband considered breastfeeding as an important job and tried to support her with doing all the housework. Nicole also spoke about her supportive husband indicating that although her husband could not provide practical support because of his job, he supported her emotionally. Nicole's husband tried to support her through spending time with her and their newborn baby in hospital which was very important for Nicole.

*He was in the hospital as much as he could be after [the baby] was born. Our other two children were staying with my parents. So the key thing was just being there and just giving ... it was just the support, having someone there. He was back at work at that stage last time, so it was nice to have him there and he was very key on making sure that I ate, making sure I always had a drink – that practical side of it. The rest of it he couldn't do anything, he couldn't help with the physical side.* (Nicole, May 2014)

Overall, in the previous chapter about breastfeeding support from female family members, the research participants did not consider practical support including doing housework and looking after other children by their own mothers to be as significant as emotional and skill support for their breastfeeding practice. Ironically, in this chapter most participants acknowledged their male partners' practical support as an important source of encouragement for their breastfeeding practice. Women expected different kinds of support from their significant others based on their gender. Women understand that their male

partners or other male family members do not have similar experiences of infant feeding or nurturing a baby like their mothers or sisters who are similar significant others to them. In addition, cooking, washing, changing nappies, waking up in the middle of night and looking after other children were not considered usual jobs for a man. Therefore, providing these forms of practical support enabled male partners to demonstrate caring which was acknowledged as valuable by the breastfeeding mothers in this research.

#### **Theme 4. Support for breastfeeding in public**

Some of the research participants indicated that support for breastfeeding in public from their male partners and their male family members was important to them. For example, Morgan talked about her reluctance to breastfeed outside of the home and how much her brother's attitude towards breastfeeding in public encouraged her to feel confident when breastfeeding in public for the first time.

*My brother is very supportive, when ... I fed him [the baby] in the mothers' room at town[names city], my brother was like : oh why did not do it outside we love breastfeeding it's great and bla bla... And I was like: oh you know it's my first time and I just was not too confident to do it outside, he was very lovely about it. (Morgan, January 2014)*

Research has shown breastfeeding in public may be problematic as the construction of breasts as sexual objects (Gill, Reifsnider, Mann, Villarreal, & Tinkle, 2004; Khoury et al., 2005), creates an expectation that women should suppress breastfeeding in public which can be difficult due to a lack of adequate facilities in public places (Blair-Stevens & Cork, 2008; McIntyre, Turnbull, & Hiller, 1999). In contrast to this research Ava said that her husband was very supportive of her breastfeeding in public.

*If we're in public and I say oh, I need to feed her now, she's getting hungry he [her husband] is really good. He'll just find somewhere or he'll look after our toddler so that I can feed her. (Ava, February 2014)*

Both Morgan and Ava acknowledged their male family members' support related to breastfeeding in public. Research has shown that stigma about breastfeeding in public or even in front of family members, is a major social barrier for new mothers who may find it difficult to overcome this obstacle (Bonia et al., 2013; Bueno-Gutierrez & Chantry, 2015; Shortt, McGorrian, & Kelleher, 2013; Ware, Webb, & Levy, 2014). For example, in the current research, Madelyn spoke about her husband's attitude towards her showing her breasts while she was breastfeeding in front of their family members which Madelyn interpreted as being very supportive of her breastfeeding practice.

*He [her husband] didn't worry if I walking around with my shirt off and my boobs out. (Madelyn, October 2013)*

Addison, for example, who exclusively breastfed for around five months spoke about her positive and negative experiences when she was breastfeeding in public:

*Actually, I get more comments from men, I find men seem to be really positive – like more so being pregnant and then having a baby and breastfeeding. I don't know if that's a new thing... [So you had positive comments or a positive experience from men?] Yeah definitely – positive comments from men, unexpectedly – and even if they're with a partner – married - like if there're a man and woman together, it will be the man that will say something as opposed to the woman. (Addison, February 2014)*

Addison was surprised because she unexpectedly had more positive comments and feedback from men when she was breastfeeding in public. Therefore, the findings of this current research related to breastfeed in public is not in accordance with other research findings that show embarrassment with breastfeeding in public is a common barrier for new

mothers (Bonia et al., 2013; Bueno-Gutierrez & Chantry, 2015; Shortt, McGorrian, & Kelleher, 2013; Ware, Webb, & Levy, 2014).

In this current study, most research participants were very satisfied with their male partners' support and encouragement, with the majority of them suggesting that their male partners could do nothing more. Tohotoa et al. (2009), conducted a mixed methods study using interviews and an online survey of 76 parents (mothers and fathers). The central theme identified from analysis of the mothers' data was "Dads do make a difference" and from the fathers' data analysis was "Wanting to be involved". They concluded that the quality and quantity of breastfeeding among mothers who had their partner's support were significantly higher, and suggested the support of male partners emotionally, practically and physically can make a difference.

### **Theme 5. Support from other male family members**

Some of the research participants said that they had received crucial support from other male family members who encouraged them to maintain exclusive breastfeeding over time. Some of our research participants assumed that their male partners should provide support regardless of whether they were breastfeeding or formula feeding (Sherriff et al., 2009). Encouragement from male family members who were not their partners was an unexpected source of support for breastfeeding. Jocelyn who exclusively breastfed her baby for about five months, said:

*My father-in-law was very supportive and happy for me; he was just really supportive of breastfeeding. He was surprised; he was very supportive of the fact that I want to be breastfeeding exclusively. ... my mother-in-law and my sister-in-law keep asking me if she's on formula – drinking from a bottle yet, and I get very*

*annoyed when I get asked that question because I don't want to use formula and I don't want to go to a bottle. (Jocelyn, March 2014)*

Jocelyn had breastfeeding support from her father-in-law. The support and encouragement for breastfeeding especially exclusive breastfeeding from her baby's grandfather was very important to Jocelyn. In addition, Jocelyn also compared the significant emotional support that she had received from her male in-law, to discouragement as well as questions about formula feeding from her female in-laws despite Jocelyn's stated desire to breastfeed exclusively. Similarly, Addison who also breastfed her son exclusively for about five months reported that she had received more encouraging comments from men, including grandfathers, related to the importance of breastfeeding for the health of future generation:

*I get more comments from men – granddads talking about their grandchildren - and how important it is that they get fed when they're hungry. (Addison, February 2014)*

Morgan, Ava, Kaylee, Sarah, Lucy and Emily who exclusively breastfed their babies for six months perceived that the support and encouragement from their male family members were extraordinary. For example, Morgan talked about the breastfeeding support from her brother highlighting he is very supportive and describing her brother's attitude towards breastfeeding as "he's all into breastfeeding":

*My brother is very supportive , he's all into breastfeeding ... and yea I think my whole family and friends have been all very supportive, You know very happy to still keeping conversation going with me when I am doing breastfeeding he doesn't leave the room and walk away, and my dad and my step father all the men in my family are supportive of breastfeeding. (Morgan, January 2014)*

Morgan also spoke about her male family members who acted normally when she breastfed in front of them and she experienced this as very encouraging. The behaviour and attitude of her male family members enhanced Morgan's breastfeeding confidence and self-

efficacy. Likewise, Ava, who breastfed her baby for six months exclusively, talked about the supportive and encouraging behaviour of her father in relation to her breastfeeding practice.

*I'm quite lucky, my mum and my dad are both really supportive of breastfeeding, ... my dad would make me a cup of tea, he would always ... like, if we're having dinner and I had one hand free he'd cut up my meat or ... yeah, my dad has always been really, really helpful. He's always been so supportive and always takes an interest. Like, he'll say oh, maybe you need to burp her differently – not that he's ever done it before, but he's interested. He'll give me his favourite chair to sit in. I think because he wants grandchildren, so they're going to do whatever they can to support. 'Cos they know that I want to breastfeed. I know a lot of it is cultural, like dad is very socially aware of what's needed. So if I'm looking a bit tired or something he'll say here, give her to me and I'll have a cuddle. In the start she actually had more cuddles with my dad than she had with my husband 'cos he was always taking her. (Ava, February 2014)*

Ava also talked about the influence of socio-cultural factors on her father's attitude which enabled him to support her daughter to breastfeed her baby successfully. Another participant was Kaylee who considered that her father was more supportive of breastfeeding than her mother. When I asked her if she had any breastfeeding advice from her family members, Kaylee answered that her father encouraged her to breastfeed:

*My dad says that I am doing a good job, my dad is more supportive than my mum, he says it's good, I'm pretty close to my dad than my mum, I hadn't have any advice from my dad just he encouraged me. (Kaylee, December 2013)*

Sara also talked about her supportive father, she said that her father encouraged her and all of her sisters to breastfeed their babies successfully.

*We're a big breastfeeding family - all my sisters have done it. And my father loves it - funnily enough he thinks it's beautiful. He doesn't say much but whenever any of us girls are feeding our babies he always comes and sits with us or strokes the baby's head, and mum always says it's nothing weird, he just thinks it's beautiful what you're doing. (Sarah, February 2014)*

Sara described her father's behaviour related to breastfeeding as very encouraging for her and her sisters. Similarly, Lucy who breastfed her baby exclusively for six months despite prolonged lactation problems and severe breast pain, talked about the significant emotional support from her family members regardless of their gender.

*Yeah so luckily I had the support. I've got two sisters in town, my brother, my mum and dad, so everyone did come around once they could see I was in pain. They were like oh yes sorry, it can be a bit like this, and had lots of help and support with carrying on. Yeah they were around and just kept saying supportive, positive things as well – just to keep going. (Lucy, April 2014)*

Another participant who breastfed for six months exclusively was Emily, she talked about how her father's commitment to natural health meant that he supported breastfeeding. She also spoke about her brother who was knowledgeable about and supportive of breastfeeding as his wife was also breastfeeding at the same time as Emily:

*Yea, My dad is really encouraging again because he knows, he is quite into natural health, and knows how important breast milk is, and also my brother because he had a baby three days before our one so we have got two babies exactly the same age, so he (brother) is obviously reading a lot about breastfeeding because his wife is breastfeeding so he has been very encouraging as well which is really good. (Emily, April 2014)*

Emily also stated that her brother was reading a lot about breastfeeding and was eager to learn about breastfeeding as well. The narratives of Ava, Emily, Lucy and Sarah illustrate how breastfeeding may be encouraged through a culture of breastfeeding within families. This culture of breastfeeding is not solely based upon the intergenerational sharing of breastfeeding skills and advice between mother and daughter, it also illustrates the important role that male family members play in contributing to familial breastfeeding traditions.

Little literature was found to support the findings related to breastfeeding support from male family members who were not partners of the breastfeeding women. Previous research in New Zealand (Abel et al., 2001), showed that Pacific-raised and traditional Maori mothers who had good family support did not need any other support for breastfeeding especially from health professionals. Those women who did not receive support from their extended family members may stop breastfeeding earlier. Similarly, a Fijian study suggested that assistance from extended family members as well as their cultural community were crucial sources of support that enabled mothers to breastfeed their babies successfully (Morse, 1984).

Overall, evidence from this small qualitative study suggests that some men in New Zealand may have more favourable attitudes toward breastfeeding in their family and in public, despite not having sufficient knowledge and information about breastfeeding. These men seem to be eager to learn in order to support their breastfeeding partners or family members. Also, some participants even suggested that breastfeeding support from their male family members was as effective as support from their female family members. However, not all men are supportive of breastfeeding and male support may be very culture-specific.

## **Conclusion**

The findings of this chapter suggest that some women in New Zealand, as indicated by those who contributed to this research, experienced greater breastfeeding support from their male partners and their male family members. The current chapter applied the theory of stress, coping strategies and social support proposed by Thoits (1995), and identified how providing support from male family members enhanced these participants' self-efficacy and self-confidence to maintain their exclusive breastfeeding behaviour. Therefore, the findings



related to breastfeeding support from male partners and other male family members point to the relational nature of six months exclusive breastfeeding behaviour. Six months exclusive breastfeeding behaviour is influenced by the social networks around the mother including male family members. The breastfeeding support from men in New Zealand indicates that the behaviour of men related to advocacy for breastfeeding in their family environment or public places is also socially constructed, shaped and influenced by the social networks around these men as well as the cultural, geographic, economic, religious and social contexts of these men lives.

The next chapter will discuss the quality of breastfeeding support from health professionals based on the narratives of women who participated in this research.

## ***Chapter 8: Breastfeeding Support from Health Professionals<sup>76</sup>***

### **Introduction**

Having an antenatal intention to initiate and maintain exclusive breastfeeding is an influential factor on the prolonged duration of this behaviour (Behera & Anil Kumar, 2015). However, there are factors that influence antenatal intention, initiation and duration of exclusive breastfeeding such as the mother's behavioural beliefs, perceived behavioural control, self-identity and subjective norms. Subjective norms are reflected in the opinions of social referents which may influence the mothers' decision to breastfeed or to formula feed. There are five important social referents for a new mother including their partner, the maternal grandmother, family members, health care providers and peer support groups. The thoughts, beliefs and actions of these social referents are critical for the breastfeeding mothers (Adlina, Narimah, Hakimi, & Mazlin, 2006; Agunbiade & Ogunleye, 2012; Almroth, Mohale, & Latham, 2000; Arora, McJunkin, Wehrer, & Kuhn, 2000; Arts et al., 2010; Februhartanty, Bardosono, & Septiari, 2006; Fjeld et al., 2008; Ismail, Muda, & Bakar, 2013).

Research has identified most mothers face lactation issues during the early postpartum period (Schmied & Barclay, 1999). Health professionals play a unique role in supporting

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<sup>76</sup> Portions of this chapter appeared in *Women and Birth Journal* and reprinted by permission [Appendix 19]: Alianmoghaddam, N., Phibbs, S., & Benn, C. (2017). Resistance to breastfeeding: A Foucauldian analysis of breastfeeding support from health professionals. *Women and Birth*. In press. <https://doi.org/10.1016/j.wombi.2017.05.005>

mothers during the difficult period of establishing and sustaining breastfeeding (Graffy & Taylor, 2005). Qualitative research aimed at exploring mothers' views about the efficacy of support from their health care providers is essential for improving the quality of this kind of support. This chapter explores the role that health professionals play in promoting exclusive breastfeeding in New Zealand.

The services of self-employed registered midwives<sup>77</sup> are funded by the New Zealand government. Although most of the participants were satisfied with the quality of care and support that they had received from their LMC midwives while establishing breastfeeding, they spoke about feeling pressured to breastfeed within the New Zealand health system. Michel Foucault's (1977; 1972) theories addressed the relationship between knowledge and power and the ways that modern states use disciplinary power, which is wielded through institutions such as the army, prison and hospital, as a form of social control. In the current research following thematic analysis of the qualitative data, Foucault's (1972) theories of governmentality and bio-power are applied to illuminate the findings of this chapter related to resistance to breastfeeding. Participants suggest that resistance to breastfeeding occurs as a result of perceived judgements around formula feeding, feeling guilty and pressured to breastfeed as well as surveillance or monitoring of parents by health professionals.

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<sup>77</sup> New Zealand has a unique midwifery system, in which women who are at low risk of complications are visited by a community midwife or Lead Maternity Carer (LMC) during the childbearing period. LMC midwives are paid by the New Zealand Ministry of Health and provide free maternity care for women who are booked with them from the first trimester of pregnancy until six weeks postpartum. Retrieved from: Community Birth Services, Temaimoahaputanga, Whakawhanau Me Muriatu/ Maternity Care. What to Expect: <http://www.communitybirthservices.org.nz/maternity-care-what-to-expect.html>, Accessed date 19/01/2017.

## Medicalization and de-medicalization of breastfeeding

The medicalization of childbirth and breastfeeding in New Zealand and internationally has been extensively documented (Apple, 1994; Beasley, 1998; Christiaens, Nieuwenhuijze, & De Vries, 2013; Henley-Einion, 2003; Ryan & Grace, 2001; Thompson, Kildea, Barclay, & Kruske, 2011). Medicalization can be defined as: “*A process by which nonmedical problems become defined and treated as medical problems*” (Conrad, 2007, p. 4). The following section provides a brief overview of some of the main themes within the medicalization literature related to pregnancy, birth and childcare.

Prior to and throughout the 19<sup>th</sup> century, breastfeeding was the only method of infant feeding (Ryan & Grace, 2001). At the end of the 19<sup>th</sup> century, breastfeeding became medicalized as health professionals began to produce new knowledge about child care and illnesses, such as mastitis, which were caused by breastfeeding. At the same time, commercial infant formula began to be marketed in both the USA and Europe (Apple, 1994; Ryan & Grace, 2001). In the 1880s, “paediatrics” was created as a new branch of medicine, which promoted the idea that the caring and rearing of healthy children required recommendations and advice from medical doctors (Ryan & Grace, 2001). During that era a profitable relationship between science and industry saw the development of infant formula (Greer & Apple, 1991). At that time industry practices incentivised health professionals to advise mothers to choose formula feeding rather than breastfeeding as the best and most scientific method of infant feeding (Greer & Apple, 1991). In the early 20<sup>th</sup> century, as a result of the widespread belief in “scientific motherhood” as the best type of mothering, parents relied on the advice of health professionals which constructed breast milk as an inadequate form of nutrition for raising a healthy baby (Apple, 1994). Consequently, the rate

of breastfeeding tailed off in that period because breastfeeding mothers could not find appropriate information and support for breastfeeding and even encountered resistance to breastfeeding from health professionals (Stolzer & Zeece, 2006).

Formula feeding was attractive to health professionals as it allowed practitioners to control and monitor mothers and their children, while the medicalization of infant feeding encouraged parents to become dependent on the health professionals for advice about their child rearing practices (Apple, 1994; Greer & Apple, 1991). It is important to note that not only did formula feeding enable monitoring of mothers and their babies, but shifting birth from home to the hospitals also created an environment where health professionals had greater opportunities to surveil parents (Ryan & Grace, 2001). Apart from encouraging mothers to choose the lifestyle that was dictated to the hospitals and health professionals by the government in the form of health policy and protocols, hospitals also provided an educational and hands-on training environment for their staff (Ryan & Grace, 2001). Medicalization of birth and infant feeding in New Zealand began between the two world wars and coincided with the establishment of the New Zealand Obstetric Society and the establishment of free maternity care which was funded by the New Zealand Labour government in 1939 (Smith, 1986).

In 1927, the Obstetric Society in New Zealand was established in order to improve the training of doctors and to bring childbirth under the control of the medical profession (Smith, 1986). At the same time, women complained about the severe pain of labour and asked for an efficient form of pain relief from health professionals (Smith, 1986). The introduction of free maternity care, combined with doctors gaining the exclusive right to administer pain

relief to labouring women, resulted in a rapid shift from home to hospital enabling doctors to gain control over birth.

In the late 20<sup>th</sup> century, the term medicalization appeared amongst the works of philosophers and social theorists such as Michel Foucault (1973) and Thomas Szasz (Nye, 2003). These scholars pointed out that there is a tendency in the Western health system for health professionals to want to solve social and behavioural problems via biomedicine (Thompson, 2008). Foucault (1973) also spoke about the “medical gaze” and pointed out that in the teaching hospitals and clinics individuals are treated with little dignity as medical doctors treat patients like biological organisms separated from their souls and identities. Foucault described how health professionals consider the human body as a “field of knowledge”, while at the same time the patients enter into the “field of power” and become a target for manipulation (Foucault, 1973). Foucault used the term “docile body” to explain how the human body becomes a subject, disciplined, dehumanized and transformed by “disciplinary power” through modern institutions within liberal societies including teaching hospitals, clinics, asylums or prisons (Foucault, 1977).

In the mid- 20th century, the two important campaigns of “feminists” and “traditionalists” fought against the medicalization of both birth and breastfeeding (Rothman, 1982; Sandelowski, 1984; Wertz & Wertz, 1989). According to Conrad (2007) and Torres (2014) birth and breastfeeding cannot be de-medicalized completely because there is always a need for the presence of a health professional due to the potential for problems to occur during childbirth which require skills and midwifery knowledge. Therefore, in relation to medicalization, it would be more appropriate if the terms increase or decrease of the medicalization of both birth and breastfeeding be applied rather than the absence of

medicalization (Conrad, 2007; Torres, 2014). Health professionals, particularly midwives and lactation consultants for example, are able to successfully promote breastfeeding with a low level of medical intervention. Although the two movements of “feminists” and “traditionalists” could not de-medicalize both birth and breastfeeding completely, today the World Health Organisation encourages all governments, health care organisations and health professionals to support breastfeeding.

In 1989, the World Health Organisation (WHO) and the United Nations Children’s Fund (UNICEF), (WHO & UNICEF, 2009), established a worldwide campaign to increase the international rate of breastfeeding initiation and duration through promoting, protecting and supporting breastfeeding. This campaign introduced best practice for health services through promoting breastfeeding in the form of “Ten Steps to Successful Breastfeeding” [see Table 8.1] (NZBA, 2016; WHO, 1998; WHO & UNICEF, 2009).

**Table 8.1:** The Ten Steps to successful breastfeeding for maternity services

1	A written policy of breastfeeding for communication with all staff.
2	Providing adequate education to all employees about this policy.
3	Educate all pregnant women about the benefits of breastfeeding as well as educate them about how to manage the breastfeeding.
4	Support all mothers within 30 minutes after birth to initiate breastfeeding.
5	Educate mothers about the attachment and positioning and how to express and maintain their supply when separated from their baby.
6	Feed the baby no food and drink except breast milk until medically indicated.

7	Provide a rooming-in environment to allow mother and infant always being together.
8	Encourage mothers to breastfeed their babies on demand.
9	Never use artificial teats including pacifier and bottle for the breastfeeding babies.
10	Support the establishment of breastfeeding peer support groups and encourage mothers to participate in these support groups after discharge from the maternity service.

In 1991, after the International Innocenti Declaration of 1990 on the Promotion, Protection and Support of Breastfeeding in Florence, Italy (Declaration, 1990), the Baby Friendly Hospital Initiative (BFHI) was launched. New Zealand was a signatory to the BFHI convention (WHO & UNICEF, 2009). There are two important targets for the BFHI. Firstly, encouraging and facilitating changes to maternity services and hospitals based on the “Ten Steps to Successful Breastfeeding” guidelines. Secondly, discouraging the distribution of free or cheap supplies of breast milk substitutes to health care staff or maternity facilities based on the International Code of Marketing of Breast-milk Substitutes (NZBA, 2016). However, the establishment of BFHI in New Zealand was challenging in the 1990s as a result of political views at that time as breastfeeding was regarded as a barrier to producing greater economic wealth from the marketing of infant formula (Brady, 2012; Martis & Stufkens, 2013). Therefore, the framework for the successful implementation of the BFHI was not developed until 1999 when the New Zealand Breastfeeding Authority (NZBA) was established. The major role of NZBA was the implementation of BFHI in New Zealand (Martis & Stufkens, 2013). Finally, in 2000, the New Zealand government formally launched the BFHI and became the 133<sup>rd</sup> country in the world to develop a hospital accreditation



program based on the BFHI principles (Martis & Stufkens, 2013). Following financing the NZBA to develop the BFHI accreditation program, the number of baby-friendly maternity facilities in New Zealand increased drastically from zero in 2000 to almost 96% in 2011. At the same time, the rate of exclusive breastfeeding at discharge increased sharply from around 55% in 2000 to approximately 85% in 2011 (Martis & Stufkens, 2013). The NZBA as the national authority that is responsible for the implementation of the BFHI provides support in the form of training, research and essential breastfeeding knowledge for both health professionals and maternity services to implement best practice related to breastfeeding (NZBA, 2016).

The most recent New Zealand health survey (Ministry of Health, 2012) shows that the six months exclusive breastfeeding rate is still very low especially among Maori and Pacific people. These figures suggest that culturally responsive breastfeeding support should be targeted at Maori and Pacific people. Improving breastfeeding rates in Maori communities, for example, requires involving community leaders as well as employing Maori health professionals and Maori peer group mentors to support breastfeeding based on their cultural beliefs (Ministry of Health, 2009). Furthermore, in New Zealand in 2014, more than eight out of ten infants were exclusively breastfed at discharge from the hospital, 42% at three months and at six months only 16% were breastfed exclusively (WHO, 2014a). In New Zealand the rate of exclusive breastfeeding at discharge has doubled since 2000, and this success has been attributed to the implementation of Baby Friendly Hospital Initiative (BFHI) combined with significant breastfeeding support from health professionals such as registered midwives. Prior to the implementation of the BFHI in New Zealand it was not

uncommon for hospital based health professionals to give babies formula (Martis & Stufkens, 2013). Today hospital staff would only supply infant formula for medical reasons.

The BFHI and midwifery support have been identified as key reasons for New Zealand's excellent rate of breastfeeding initiation and exclusive duration at the time of discharge (WHO, 2014a). The following sections of this chapter aim to evaluate the quality of breastfeeding support from the New Zealand health professionals based on the narratives of the women who participated in this doctoral research.

## **Findings**

Apart from the health benefits of breastfeeding for both mother and baby, there are many other advantages related to breastfeeding such as immunologic, nutritional, psychological, environmental, social and economic benefits (Ip et al., 2007; Kwan, Buffler, Abrams, & Kiley, 2004; WHO, 2011, 2016b). In order to promote and increase rates of breastfeeding governments and international health organisations emphasise the health benefits of breastfeeding for the baby. Governments may also provide social support for mothers, such as paid maternity leave, in order to encourage the prolonged duration of breastfeeding. However, acknowledging individual autonomy alongside protecting public health is a difficult task for governments. According to Michel Foucault (1972) in Western cultures, "humans are made subjects" and the methods of constructing useful individuals involves disciplinary techniques and normalising practices (Duncan & Bartle, 2014; Roth, 1992). Disciplinary technologies describe sets of understandings around an issue that pressure the individual into selecting the dominant or normative set of practices (Duncan & Bartle, 2014; Roth, 1992). However, normalising a behaviour is not simple as it needs to be maintained

through disciplinary techniques such as surveillance, professional examination, record keeping and normalising judgements (Foucault, 1977).

Foucault in his study of institutions (Foucault, 1977), pointed out that hospitals play a significant role in the process of legitimising normalising judgements as well as practices through the production of technologies as forms of modern disciplinary power. Modern disciplinary power is deployed to transform practices through the use of persuasion rather than through the use of force or physical punishment. According to Foucault the shift in power from physical punishment to self-control can be seen in modern institutions including hospitals (Foucault, 1977). Self-control can be explained as the most effective method of controlling populations without the need for threat of violence against them. Foucault discussed the “power of public opinion” which is presented through the mass media as an example of disciplinary technologies that are aimed at self-control (Duncan & Bartle, 2014). Consequently, a normalised practice is socially constructed, monitored, protected and promoted through the power of public opinion.

Duncan and Bartle (2014) have applied Foucault’s theories about disciplinary technologies to the normalisation of contemporary breastfeeding practices. For example, the intention to breastfeed is largely represented as an individualised decision, however normalising judgements contained in health professional advice and public opinion, reflected in clichés such as “breast is best”, may also influence breastfeeding decisions (Duncan & Bartle, 2014). Therefore, public discourses suggest that a good mother should select the infant feeding method that is socially sanctioned and that has become normalised through monitoring and surveillance by both health professionals and peers (Duncan & Bartle, 2014). It is important

to note that in a society in which breastfeeding is socially constructed as a normal practice, selecting formula feeding would be a risky decision that may compromise the mother's identity. Therefore, mothers who decide to select a method of infant feeding that is not socially sanctioned may experience isolation or a lack of support from their health professionals and/or peers.

After thematic analysis of the qualitative interview material four themes emerged: breastfeeding self-efficacy support from the LMC midwives, mothers need to know more about breastfeeding during pregnancy, experiencing difficulties breastfeeding and "pressure and resistance to breastfeeding". I will discuss the findings in form of an integrated discussion with examples from the research participants' narratives, the Foucault's theories as well as the other relevant studies.

### **Theme 1. Breastfeeding self-efficacy support from LMC midwives**

In the area of child care, health professional support is one way to normalise breastfeeding through linking responsibility to protect children's health with breastfeeding (Murphy, 2003). Breastfeeding support from health care providers can be accepted or even appreciated by mothers if their autonomy is respected (Murphy, 2003). However, where skill support or expert information is formulated into a rigid health policy or set of rules, then resistance from mothers may result (Murphy, 1999). Mothers may consider rigid guidelines on infant feeding as an attempt to surveil and monitor their private life or to limit their autonomy (Murphy, 2003). Most participants in this current research talked about the effectiveness of the individualised support that they had received from their Lead Maternity Carer (LMC) midwives. When I asked women about the breastfeeding advice from their midwives before

the birth, most participants spoke about the encouragement as well as the practical information they had received. For example, Morgan a first-time mother talked about her midwife's advice and how much it influenced her decision to breastfeed exclusively for the first six months.

*It was myself that really wanted to breastfeed. But my midwife said to me when I said her, really want to breastfeed. I want to be able to achieve. She [the midwife] said the main way to achieve breastfeeding is you really want to do it. You know, because it is hard, you need to persevere with it, and you really want to do it that's strongest thing that you can have. Yeah advice from my midwife was the key influence (Morgan, December 2013)*

Morgan was informed about the reality of breastfeeding by the LMC midwife during her pregnancy and this strengthened her confidence. Ava also spoke about her LMC midwives, who supported her decision to breastfeed her first and second babies exclusively for the full six months. Ava was satisfied with the informational and skill support that she received from both her LMC midwives stating that her first midwife had excellent communication skills.

*I think probably I always wanted to. My first midwife was really good to talk to. So that's probably when I made all my decisions around starting breastfeeding was with my first midwife. So yeah, probably she was my first person to get advice from. And then that carries on, yeah. She [her second midwife] helped me with latching, and was really encouraging and everything. Like they come and they check and help with the latch, and with my first baby I had blisters and some cracks and things and so it was really having someone that would just kind of encourage you to keep going and say it's normal. Some just say oh, that's normal or whatever. It was very cool. (Ava, February 2014)*

In a study of the influence of different social referents on women's infant feeding decision, Swanson and Power (2005), found that subjective norms, the opinions of male partners and attitudes of health professionals are crucial for supporting or discouraging the initiation and duration of both breastfeeding and formula feeding. They concluded that the midwife plays a major role in communicating positive breastfeeding messages to mothers at different

periods of time. They recommended that midwives should promote breastfeeding via creating a more informal relationship with women as well as educating women and their significant others about the importance of exclusive breastfeeding.

Hailey was a participant who struggled with exclusive breastfeeding due to her baby's medical condition. Despite all the issues and problems that she had with breastfeeding, Hailey breastfed her baby exclusively for three months. After three months, Hailey introduced a brand of formula which was prescribed by the paediatrician, however, it did not work, and after two weeks she restarted fully breastfeeding. Hailey reported that her LMC midwife was extremely encouraging and supportive during this difficult period.

*My midwife always kept telling me how wonderful I was doing. She was really positive. And she kept saying look how big he's growing, and that's all because of you, which made me feel really good. You know, she was like he's gained this much weight because of you, and I thought that was really nice, it made me feel happy. And just kept congratulating me on being determined. She [the midwife] said because you're so determined this is why it's working. Which was lovely. I mean, she wasn't actually doing anything, it's just things she'd say that would be encouraging. (Hailey, February 2014)*

Although Hailey stated that her LMC midwife did not provide any skill support or advice about breastfeeding while her baby was under the care of the paediatrician, she felt that her midwife was wonderful as she was very supportive emotionally. Hailey's narrative emphasises the importance of encouragement as well as developing an informal relationship with women.

Similarly, Nicole, who breastfed her baby exclusively for the full six months, beginning while her baby was still in Neonatal Intensive Care Unit (NICU), talked about her midwife's competent advice.

*My midwife wasn't really that involved at that point because he [the baby] was in NICU, so it wasn't really my midwife, it was more the staff there. It's all about*

*putting the baby on the breast. The baby can't find the breast itself, you've got to put the baby on the breast. And that didn't work last time, and that was again what was being pushed. You have to put the baby on the breast and that wasn't working, and my midwife said you know what you're doing, your baby knows what he's doing, you need to tell the nurses to back off. She [midwife] said tell the nurses to back off and let you do what you want to do, just tell them to go away. Yeah, that was the best piece of advice. Because I wanted him [the baby] to be able to feed himself, I didn't want to have to try if he wasn't into it. He [the baby] wasn't that strong, he was still getting used to everything and he'd had a sort of a rough ride. So that was the best thing that I wanted to do... (Nicole, May 2014)*

Nicole compares the unhelpful breastfeeding advice provided by the NICU nurses with the support provided by her midwife. She was pleased that her LMC midwife acknowledged her autonomy and capability as a mother who knows how to look after her baby better than others.

According to Foucault (1978) technologies of power work through attaching desire to subjectivity. Hailey and Nicole's midwives provided encouragement that reinforced their identities as a "good mothers" and this support enabled them to find their own way to establish breastfeeding while their babies were unwell. This finding is in accordance with the finding of a study by Graffy and Taylor (2005) who identified that breastfeeding support by health professionals is sometimes experienced by women as a form of coercion, and not encouragement. Women do not want to be told what they must do regarding their infant care practice, but they want to be acknowledged as a mother who has the right to decide the best method of infant feeding for their baby (Graffy & Taylor, 2005). Smale (1998) has argued that medical training ignores the importance of psychosocial aspects of breastfeeding support. Hoddinott and Pill (2000) described maternity services in the UK as the places where doctors ignore the key competencies of providing care such as effective communication with the clients through facilitating a non-hierarchical, partnership approach. Likewise, Hewison

(1995) pointed out that health professionals exert power over their clients and control them through the use of language. For example, Nicole, who was unhappy with the instructions of the NICU nurses, may try to produce her own definition of good mothering in order to protect her identity even when resisting the authority of health professionals. Nicole wants to be understood, to have autonomy as well as control over her infant care decisions. Therefore, health professional training related to breastfeeding support should focus on counselling skills which help women to find individualised solutions rather than providing generic advice in the hope that it solves the problem.

Midwifery training in New Zealand is an example of best practice in relation to health professional support for breastfeeding. The major concept of the midwifery profession in New Zealand is “partnership”. According to the New Zealand College of Midwives (NZCOM, 2016b), the first and most important standard of practice for a registered midwife is practising “in partnership with the women”. Working in partnership with women requires a focus on trust, shared decision making, shared understanding and shared responsibility. New Zealand midwives acknowledge the woman’s cultural beliefs and provide both practical advice as well as evidence based information for the woman or her nominated family members. Midwives in New Zealand are trained to respect the woman’s autonomy and the decisions that she makes related to her childbearing journey (NZCOM, 2016a)<sup>78</sup>.

Modern parenting culture is based on expert opinion and guidance in all areas of child rearing from health to medical and psychological issues (Faircloth & Murray, 2015).

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<sup>78</sup> According to the New Zealand midwifery scope of practice: “Midwives have an important role in health and wellness promotion and education for the woman, her family and the community. Midwifery practice involves informing and preparing the woman and her family for pregnancy, birth, breastfeeding and parenthood and includes certain aspects of women’s health, family planning and infant well-being”, (Midwifery Council, 2016).



Dominant modes of mothering in developed societies, which have become standardised through the use of expert opinion, are very different from historical forms of mothering which were contextual and experiential (Knaak, 2010). Health professionals play a unique role in supporting mothers during the difficult period of establishing and sustaining breastfeeding (Debevec & Evanson, 2016; Graffy & Taylor, 2005; Larsen & Kronborg, 2013). Research has shown (Debevec & Evanson, 2016; Kronborg, Harder, & Hall, 2015) that mothers in hospital maternity wards are not satisfied with their care due to the provision of conflicting advice as well as the quality of support received from health professionals. Conflicting advice can undermine a mother's self-efficacy and it may sometimes lead mothers to use formula feeding (Kronborg et al., 2015), particularly when health professionals try to give up-to-date knowledge such as trying feeding on demand or avoiding nipple shields (Kronborg, Foverskov, Nilsson, & Maastrup, 2016).

The importance of health professionals providing individualised breastfeeding support alongside effective communication skills is highlighted by several studies (Debevec & Evanson, 2016; Furber & Thomson, 2010; Hauck, Fenwick, Dhaliwal, Butt, & Schmied, 2011; Tarrant, Dodgson, & Tsang Fei, 2002). Overall breastfeeding support from the LMC midwives who had favourable attitudes towards breastfeeding was critical for the women who participated in the current research. Most participants in this study acknowledged the quality of the self-efficacy support and encouragement that they had received from their LMC midwives. They were satisfied because their midwives respected their autonomy as a competent mother who is able to choose the best infant care options for their babies.

## **Theme 2. Mothers need to know more about breastfeeding during pregnancy**

As I mentioned earlier, antenatal breastfeeding intention is one of the strongest predictors of breastfeeding initiation and prolonged exclusive duration (DiGirolamo, Thompson, Martorell, Fein, & Grummer-Strawn, 2005; Dodgson, Henly, Duckett, & Tarrant, 2003; Meedya, Fahy, & Kable, 2010). Research has shown that initial breastfeeding experience may change the outcome of intentional breastfeeding behaviour and women need to be prepared for breastfeeding challenges when they are pregnant. (DiGirolamo, Thompson, Martorell, Fein, & Grummer-Strawn, 2005; Perrine, Scanlon, Li, Odom, & Grummer-Strawn, 2012). Therefore, providing advice and education on the health benefits of breastfeeding as well as the reality of breastfeeding should be considered during the pregnancy by healthcare providers especially LMC midwives and the childbirth educators who provide antenatal education for pregnant women and their partners. For example, Sydney, who breastfed her baby exclusively more than five months complained about the health professionals who pressured women to breastfeed without educating them about the reality of breastfeeding.

*I guess no-one often tells you about how hard it can be or that it can be painful. No-one talks about the negative side ... or not the negative ... but how hard it can be. They just say you must breastfeed. And I guess I knew that bit more this time, but thinking back to the first time yeah probably more that side of it. (Sydney, March 2014)*

Sydney reported that when she was a first-time mother, nobody told her about the embodied reality of breastfeeding. Sydney believed that if parents knew about breastfeeding problems and issues they would be better prepared and have an ability to manage it. Similarly,

a review study aimed at examining the important factors influencing early cessation of exclusive breastfeeding (Santo, De Oliveira, & Giugliani, 2007) found that a potential risk factor that can negatively impact on the duration of exclusive breastfeeding was being a first-time mother and inexperienced about the reality of breastfeeding (Agboado, Michel, Jackson, & Verma, 2010). Another participant who complained about the lack of information and advice on the experience of breastfeeding during pregnancy, particularly for first-time mothers, was Lucy, who also exclusively breastfed her baby for the full six months.

*We touched base on it and obviously it was a topic that came up because of my previous experience. But first time round my midwife gave me the DVD, I went to antenatal classes, and we touched on it, but no-one really touched base about actually that it can be really painful and no go to plan. I was so naïve I honestly just was more focused on my birth and my labour and just assumed to have baby, put it on the boob, feed, away you go. I didn't even think for a second it was going to hurt or be painful or such an issue. So we did talk about it second time round because of those issues, but I don't think you get told enough about how it can actually go wrong. You get told about birth and what can go wrong with that part but I had no idea what I was letting myself in for with breastfeeding. I seriously just thought it was you put the baby on a boob and you feed. I didn't actually get why people didn't do it and things like that but now I can see why – why it's an issue – and I can see why people quit unfortunately and things like that. But yeah a lot of that help - I think people do need a bit more help with the fact that it isn't just straightforward. (Lucy, April 2014)*

Lucy talked about the education that was provided around breastfeeding during her first pregnancy. Lucy complained about inadequate advice from the antenatal educator and her midwife concerning the embodied reality of breastfeeding and how she was unprepared for the lactation issues that occurred following the birth of her first child. Another research participant, Brianna who was a first-time mother also complained about not getting enough advice about breastfeeding during her pregnancy. Although she admired her midwife and

talked about her midwife's skills related to birth, Brianna spoke about her unmet needs related to the specific advice about breastfeeding from her midwife:

*While I was pregnant I didn't really get much advice really. I think I probably should have done more research but to be honest I thought that 'cos it's such a natural thing I thought that I would be able to pick it up. And I had heard of people having problems but the problems that I heard were always about supply, not about the actual latch or anything like that. So probably I didn't get as much advice as I needed but also I probably didn't seek it. I should have asked more questions I think. To be honest I feel like more could have been done. I really liked the midwife, she was really good, and she was amazing at the birth, but I feel like her focus was the birth and then after the birth she was a little bit like not as focused and not really giving specific advice. I feel like lots of the advice was very general so she would say like when you breastfeed you have to make sure you get all of the breast in the mouth or something really generic that I feel like maybe wasn't specific for me, which I can understand why it works like that, but I did feel like I probably needed a bit more specialised ... She [her midwife] also gave me a DVD that I watched that was on breastfeeding but it was very generic and I didn't feel like I could really relate to it. (Brianna, February 2014)*

Brianna, talked about the availability of general information related to breastfeeding everywhere (e.g. social media). While she said she needed individualised breastfeeding support from her midwife during her pregnancy. Similarly, Nicole complained about difficulties that she faced for her first time breastfeeding. She said that the main problem for her first time breastfeeding was having flat nipples and that her midwife did not give her enough advice during her first time pregnancy meaning that she was unprepared:

*Because I'd done it before it was very different. Whereas last time it was a whole foreign concept. No, I think everything's been fine because I've done it before, but the only thing that sticks out for me was that I had lots of problems trying to start breastfeeding when I first started feeding my twins five years ago. Because I had flat nipples and I didn't know that, because you don't walk around looking at everybody's nipples so you don't know what they're supposed to look like. So that would be a major thing that was lacking. Again, nothing's ever been said this time, but probably because I've breastfed before, I got over that hurdle, but that was a really big hurdle of trying to get things started last time. And I know of a lot of other people that that's happened to, that they haven't realised that they've got nipples ...*

*that you can do things about it before having the baby so it's not a problem once you've had the baby. But if you're aware of it before, then it's a bit easier rather than ... you just don't know, it's not until you're in that situation. You don't realise that there is something wrong. Well, not wrong but it's different. (Nicole, May 2014)*

Nicole reported that she knew many women who also had difficulties breastfeeding for the first time and who needed greater support and advice from their health professionals. Nicole views her body as different rather than as 'wrong' or abnormal and corrects her statement so that it aligns with this view of herself.

Lucy, Sydney, Brianna and Nicole's narratives suggest that midwives should develop a breastfeeding plan alongside the birth plan during the pregnancy particularly for first-time mothers. Similarly, a qualitative study conducted in the Netherlands (Oosterhoff, Hutter, & Haisma, 2014), used the theory of planned behaviour to investigate why first-time mothers who had a robust antenatal intention to breastfeed, did not achieve their goal after the birth of their babies. They found that the level of breastfeeding knowledge, making arrangements for the birth and transition to motherhood were the most influential factors on their infant feeding behaviours. Another finding was the experience of becoming a first-time mother negatively interfered with their intention to breastfeed. For example, in the previous interview extracts, participants spoke about their negative experiences and the breastfeeding challenges that they faced when they were first-time mothers.

Moreover, when I asked Sydney about the advice that she had from her midwife for her second child, she said she had not received much information about breastfeeding from her midwife during her second pregnancy:

*She [her midwife] didn't give me a lot actually this time. I don't know whether it was because it was my second child. She'd ask me general questions like am I going*

*to breast ... that sort of thing... sort of say yes and then it was sort of left at that, so not a lot. But I didn't ask any questions either 'cos I knew I'd be confident and knew that that's what I was going to do. (Sydney, March 2014)*

Sydney spoke about being confident and not need much information about breastfeeding for her second child. However, Sydney's narrative shows that she expected her midwife to ask if she had difficulties breastfeeding with her first child and to have greater informational support during her second pregnancy. Although having breastfeeding experience helps mothers to initiate breastfeeding, inadequate advice around breastfeeding from health professionals for subsequent pregnancies may be challenging.

Most participants who contributed to this research spoke about inadequate education and advice about infant feeding during their pregnancy. Some of the research participants said that they had only received education about labour pain as well as possible issues around the birth. In the current study, mothers who experienced breastfeeding challenges suggested that they were not ready to manage lactation problems because they were unprepared for the embodied reality of breastfeeding. The breastfeeding DVD from the Ministry of Health<sup>79</sup> that all midwives in New Zealand give to pregnant women was mentioned by most research participants as useful and encouraging material for breastfeeding, but it was not enough to educate them about common breastfeeding problems.

### **Theme 3. Experiencing difficulties breastfeeding**

Three of the participants in this research either did not initiate exclusive breastfeeding or could not sustain exclusive breastfeeding for more than a week after birth because of lactation

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<sup>79</sup> Retrieved from: HealthEd, Breastfeeding Naturally. Retrieved from <https://www.healthed.govt.nz/resource/breastfeeding-naturally> Accessed date 16/08/17.

issues. For example, Mila was the only participant who stopped breastfeeding after one week and started to formula feed her baby. Mila reported that her baby initiated breastfeeding very well and that baby was happy to breastfeed which contrasted with her experience of her first child.

*She [the baby] started off really well actually. We did skin-to-skin straight away. She latched on really well about probably 50 minutes after she was born, and she seemed to have a really good feed, and she seemed to know what she was doing. She seemed to want the milk and she seemed to know where it was coming from, which was quite different to when I had my son. He [her first baby] didn't seem to have a clue what to do. So it started off really well. (Mila, October 2013)*

In the following narrative Mila talks about the circumstances that led her to stop breastfeeding in spite of having an antenatal intention to six months breastfeed exclusively and starting off well.

*She [the baby] is on bottles now because the breastfeeding didn't really ... it was planned, 'Cos she latched on really well and she seemed to be drinking a lot, so we thought everything was fine. But over the next few days she wasn't getting enough food, it was quite obvious. In hindsight it was quite obvious she wasn't settling at all. I know it takes a few days to get into it, but sort of four or five days afterwards she was still ... she wouldn't sleep unless we were cuddled up. We couldn't really put her down and she always wanted to feed, and her poo was supposed to go from black to green to yellow, and it stayed at the green stage. And my midwife, would say well, one sign of that is not getting enough food, but she was latched on really well and appeared to be drinking a lot so she [the midwife] wasn't convinced that was the problem, it was hard to tell. (Mila, October 2013)*

Mila spoke about her baby who did not settle well and cried a lot during the first few days. Mila perceived that her milk supply was not adequate. However, her midwife was convinced that her baby was getting enough milk, and as the baby latched on very well, she encouraged her to continue breastfeeding. Mila went on to explain that an unhappy baby, sore nipples, breast pain as well as a lack of sleep meant that she decided to try supplementing with formula.



*But then what happened, 'cos she was feeding so much I got really incredibly sore breasts and nipples, and it just got worse and worse 'cos she was hungry and just wanted to eat. So it kind of went from being a bit painful on about day four to maybe day five or six where I just couldn't feed her 'cos it just ... it was just agony. So before it got really, really painful, midwife suggested to top her up with any expressed milk and maybe a bit of formula just to see if that was the problem – that she wasn't getting enough. So I was trying to express and even that hurt and I wasn't getting that much out. We gave her some formula and suddenly she seemed be a lot happier. So I thought oh yeah, she was obviously really hungry. The plan was to try and rest for a couple of days and just give her expressed milk or bits of formula and see if things healed up and then try again. So we tried again and it just didn't work, just the first feed, it just was really, really painful and everything was cracked so there was blood and I had to put plasters on 'cos I was so sensitive. It was painful and quite horrible. We tried. By that point we were quite tired and fed up and worried about her obviously not getting enough. We kept to a formula just 'cos it meant we could get some sleep, and she was obviously getting food. So we thought we'll give it a bit of time to heal up. We saw midwife again on that Monday, so a week after she was born. On the Saturday another midwife came out and helped us out and tried to see if anything was wrong, because the frustrating thing was she seemed to be latched on fine. It wasn't like you could tell she was doing something wrong and therefore she fixed the problem. It was like she seems to be fine, there didn't seem to be a problem to fix other than the fact that everything was terribly painful. So I don't know. But they suggested seeing a lactation consultant at the hospital if I wanted to carry on breastfeeding, but at that point, I think I was so tired and in so much pain I just thought I can't, I just need to rest. (Mila, October 2013)*

Mila could not breastfeed her first child and was looking forward to breastfeeding her second baby exclusively for six months, but she did not expect that breastfeeding would be such a difficult task. Formula feeding enabled Mila to monitor how much nourishment her baby was receiving; she also perceived that her baby was happier on formula, and so she decided not to visit the lactation consultant that was recommended by her midwife.

The most common lactation issues include sore nipples, breast pain, perceived insufficient breast milk and poor latch (Ahluwalia et al., 2005; Heinig, 2006; Lewallen et al., 2006). Lactation consultants deal with these problems every day. Some of these issues are addressed through counselling. However some mothers eventually quit breastfeeding as a result of unresolved lactation issues. Therefore, health professionals such as midwives and lactation



consultants are able to learn from mothers who stop breastfeeding earlier than the recommended period and use this knowledge to solve the lactation problems of future mothers (Heinig, 2006). Some mothers like Mila need extensive support because they feel very vulnerable. For example, Mila's midwife suggested feeding expressed breast milk, or even supplementing with formula for a short period of time which was better than completely weaning from the breast, however these strategies also did not work for Mila.

Ella also could not sustain breastfeeding exclusively due to ongoing lactation issues. She stated that after breastfeeding initiation, she did not have the ability to breastfeed and started to formula feed her baby because she could not produce enough milk. However, even when she began producing enough milk she had to use a breast pump and bottle feed using expressed breast milk plus formula due to having inverted nipples.

*He [the baby] wasn't put straight skin to skin. He had a little mucous in his lungs or something like that 'cos I was on oxygen but he was put skin to skin within the first hour I think. I think it was after the first hour that we first tried breastfeeding. He had to take formula because my milk wasn't coming in and we were having issues so yes he's on a mixture at the moment. I have inverted nipples so that has been a challenge. When I was in hospital I stayed in a post-natal ward for four days trying with nipple shields and that type of thing and in the end I was just expressing and then giving it to him in a bottle. (Ella, June 2014)*

According to research on the early interruption of breastfeeding (Neifert, 2004; Odom, Li, Scanlon, Perrine, & Grummer-Strawn, 2013b), lactation factors are the most common reasons for stopping breastfeeding practice. These lactation factors include sore nipples, breast pain, inadequate milk production, the baby having problems with latching, an unhappy baby as well as ineffective milk transfer as perceived by the mothers (Ahluwalia, et al. 2005). While, research has shown that less than five percent of women do not have the ability to produce sufficient milk or have physiological problems that interfere with their breastfeeding

(Neifert et al., 1990; Odom, Li, Scanlon, Perrine, & Grummer-Strawn, 2013a), the perception of not producing sufficient quality or quantity of milk by mothers is the most common reason for cessation of breastfeeding at anytime during the postpartum period (Li, Fein, Chen, & Grummer-Strawn, 2008; Neifert, 2004; Odom et al., 2013b). Ahluwalia et al, (2005) found that mothers who had an antenatal intention to breastfeed were more likely to initiate and continue breastfeeding compared to the women who had not planned to breastfeed. They suggested that new mothers needed extensive support if they are to overcome early breastfeeding problems during the vulnerable early postpartum period.

The third participant who did not sustain exclusive breastfeeding was Naomi. Although she discontinued exclusive breastfeeding and gave formula to her baby after birth, she gave up formula after five days and continued fully breastfeeding. She was in hospital and had an induction for a vaginal birth, but ended up going to theatre for an emergency Caesarian Section as a result of obstructed labour. Naomi had her baby skin to skin immediately after the operation and initiated breastfeeding; however, she went on to give formula to her baby because of the perception that she was not producing enough milk.

*After he [baby] was born we started breastfeeding, they put the baby on my breast after the operation, I mean during the operation they asked me do you want the baby skin to skin and I told yeah. He was amazing. He had formula for a few days at the beginning because I couldn't produce any milk at the beginning for 3 days so he was on formula in hospital and also at home because I only stayed at hospital for 2 days and I discharged and the first day at home because there was no milk, every time I put him on my breast, there was nothing so he was crying and crying. So we just decided to give him some formula but after 4 days my breasts were engorged and was a little colostrum. I gave him formula for 5 days in total. Occasionally I give him a little bit of boiled water (Naomi, November 2013)*

Breastfeeding support from health professionals during the early postpartum period is crucial, especially for mothers who are nervous about their ability to produce enough milk

(Kronborg et al., 2015). However, insufficient breastfeeding knowledge to promote breastfeeding is a major problem which limits health professionals' confidence in their lactation counselling practice (Khoury, Moazzem, Jarjoura, Carothers, & Hinton, 2005).

The views and attitudes of the health professionals especially midwives influence breastfeeding practice immediately after birth and during the postpartum period (Swanson & Power, 2005; Tarkka, Paunonen, & Laippala, 1998). However, the effect of support from health professionals on breastfeeding varies between cultures. For instance, new mothers who are Greek rely much more on health professionals for their infant feeding support compared to Scottish mothers (Swanson & Power, 2000).

The Ten Steps to Successful Breastfeeding [see Table 8.1] as well as all the breastfeeding recommendations from WHO/UNICEF (WHO & UNICEF, 2009), emphasise the importance of practical support for breastfeeding immediately after birth or in the early postpartum period as this is a time when mothers may have a wide range of lactation issues including painful breastfeeding. Therefore health professionals need to support mothers mainly by teaching them how to breastfeed their baby with no pain or less pain (Kronborg et al., 2015). For example, some mothers may experience breastfeeding difficulties as a result of poor positioning whereby the baby bites or chews the nipple instead of suckling the breast (Graffy & Taylor, 2005; Renfrew, Woolridge, & McGill, 2000; Righard & Alade, 1992; Vallenas & Savage, 1998). Research has shown that parents appreciated the professional support around positioning and attachment as well as advice regarding latching properly so that they have successful breastfeeding instead of nipple feeding. However, a Foucauldian analysis (Foucault, 1977) of breastfeeding support suggests that health professionals should

learn how to provide support for breastfeeding mothers in a way that the mothers do not consider it as a form of “quiet coercion” or an exercise of “power”.

According to Heinig (2006), without a workable solution to lactation or breastfeeding difficulties, it would be very difficult to change the mother’s decision regarding early weaning. Insisting on breastfeeding continuation for these mothers and recounting the benefits of breastfeeding would not be helpful. However, finding solutions or offering support that is feasible may be more effective for the maintenance of breastfeeding (Heinig, 2006). Regardless of the health professionals’ experience and expertise, they should understand that there are always some mothers who do not want to breastfeed their babies. In these cases it may be necessary to provide different methods of breastfeeding support (e.g. providing information for mixed feeding). For example, instead of being judgemental it is better to improve their professional practice by learning about barriers to breastfeeding from these mothers. *“Time spent doing research with these mothers is never wasted”* (Heinig, 2006). Therefore, the best method of providing care and support for a mother who decides to stop breastfeeding is listening to her reasons in a non-judgemental way and helping her to look after her baby appropriately (Heinig, 2006).

Overall, a minority of participants in this research felt vulnerable and naïve during the early postpartum period and this was mainly attributed to being first-time mothers. Adjusting their life to a newborn baby’s demands meant that extra pressure related to difficulties with exclusive breastfeeding resulted in them deciding to introduce formula for their baby. These new mothers needed enough time to talk about their feelings regarding the difficulty of exclusive breastfeeding or the lactation issues that they faced. They needed to be supported

individually by the health professionals and also expected health professionals to acknowledge the efforts that they had made to look after their baby.

#### **Theme 4. Pressure and resistance to breastfeeding**

Forms of governmentality in relation to breastfeeding have become an increasing concern in contemporary societies. Research has identified that infant feeding is not just a task or desire of a mother or her significant others, but it has become the business of the governments, health organisations, industry as well as the wider society (Marshall, Godfrey, & Renfrew, 2007). According to Michel Foucault's theories of governmentality and bio-power (Foucault, 1972), there is a new concern raised by Western governments that improving public health requires people to change their behaviours based on the expert recommendations of health professionals. According to Foucault (1972), bio-power is a form of regulation that is applied through the institutions of government to shape individual behaviour. Through the operation of bio-power human beings are transformed into biological assets, and diseases are reduced to a set of calculative costs for governments. Therefore, international organisations, as well as national governments, pursue policies that encourage people to choose healthier lifestyles in order to decrease the cost of diseases and illnesses which are presented as resulting from bad habits. The development of international and local policies around breastfeeding are examples of bio-power in action, while Government documents that report on breastfeeding targets are examples of the way in which populations are surveilled through forms of record keeping. An example of the way in which women's bodies are reduced to transactional costs may be found in a WHO report which suggests that through promoting breastfeeding the world economy can save more than 300 billion US

dollars each year (WHO, 2016b). Therefore, formula feeding is coded as an economic risk for public health that must be addressed. Individualised health promotion campaigns and/or policies are developed to govern people and guide them into making behavioural changes by selecting healthier lifestyles (Thompson, 2008). Campaigns aimed at promoting breastfeeding use key messages or discourses that present breastfeeding as a learned skill which indicates that mothers should be dependent on the health professionals for knowledge about feeding their babies<sup>80</sup>. Other messages include: breastfeeding support is the responsibility of everyone regardless of their role, most women have an ability to breastfeed, and the most controversial message is that a breastfeeding mother is a good mother<sup>81</sup>. These messages give people permission to judge women who do not breastfeed as bad mothers (Thornley, Waa, & Ball, 2007). Foucault (1977) used the Panopticon<sup>82</sup> as a metaphor for how individual behaviour is efficiently controlled through forms of self discipline. The source of surveillance is internal; the creation of “self-policing subjects” requires that individuals always feel that they are being watched or judged by others (Foucault, 1977). In addition, Michel Foucault (1972) pointed out that the primary target of the government funded health

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<sup>80</sup> Retrieved from: St. Joseph celebrates World Breastfeeding Week:  
[http://www.newspressnow.com/life/family/article\\_35db0d3b-4a44-58e3-bef3-3e72f12a5155.html](http://www.newspressnow.com/life/family/article_35db0d3b-4a44-58e3-bef3-3e72f12a5155.html) .  
 Accessed date: 20/01/2017.

<sup>81</sup> Retrieved from: La Leche League of Texas. Good mothering through breastfeeding:  
<http://texaslll.org/good-mothering-through-breastfeeding> . Accessed date: 20/01/2017.  
 Retrieved from: The Guardian. Worrying about being a perfect mother makes it harder to be a good parent:  
<https://www.theguardian.com/commentisfree/2016/may/10/perfect-mother-good-parenting-child-behaviour> . Accessed date: 20/01/2017.

<sup>82</sup> Panopticon was a model of institutional building designed by Jeremy Bentham in 18<sup>th</sup> century for monitoring inmates or individuals efficiently, it was a circular building with a tower at the middle. It made possible that all the individuals be watched only by a single watchman because the inmates could not see the watchman but they thought that they are constantly being watched. Retrieved from: University College of London, UCL Bentham Project, Panopticon:  
<https://www.ucl.ac.uk/Bentham-Project/who/panopticon> . Accessed date: 20/01/2017.

services is the surveillance of people's behaviour. For instance, the New Zealand government pays midwives and well-child providers such as Plunket<sup>83</sup> nurses to monitor the health and well-being of all mothers and children. Midwives and well child providers educate parents based on implementing and monitoring the International Code of Marketing of Breast Milk Substitutes in New Zealand (Ministry of Health, 2007) guidelines and recommendations to support breastfeeding as the only appropriate method of infant feeding. These health professionals, as agents of the state, monitor maternal and child health, through keeping administrative records that enable identities to be attached to individual mothers. These records also allow states to report on breastfeeding rates and to identify which groups are non-compliant (e.g. New Zealand Ministry of Health's statistics (2013) show Pacific Islanders have lower rates of six months exclusive breastfeeding)<sup>84</sup>.

In the current research, most women complained that there is too much pressure to breastfeed from the New Zealand government. For example, Mackenzie who breastfed exclusively for the full six months spoke about pressure to breastfeed from Plunket nurses (well child providers). Mackenzie was very satisfied with her LMC midwife's support who she perceived as respecting her autonomy by affirming her decision to use formula if she needed to.

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<sup>83</sup>Plunket is a New Zealand not-for-profit organisation, community owned and governed. Plunket nurses practice in the community and they are well child care providers for infants and children under five years. During the home visits they give a full physical assessment to the infants and discuss the children growth, development, infant feeding and early parenting. Plunket Nurses also provide advice and information related to safe sleeping, immunisation and safety. Retrieved from: <https://www.plunket.org.nz/> , Accessed date: 20/01/2017.

<sup>84</sup> About 14% of Pacific children are given solid food before four months of age. This is higher than the national average. Retrieved from: Ministry of Health (2013). The health of Pacific adults and children. <http://www.health.govt.nz/publication/health-pacific-adults-and-children> Accessed date: 20/12/2016.

*Yeah I think there is quite a lot of pressure but it hasn't bothered me because I was always going to breastfeed. I could see really how if you chose to bottle feed it might be looked at a little bit negative by ... I didn't really find much pressure from the midwives but I think Plunket is obviously very pro breastfeeding and I can see how you'd get pressure from Plunket to try and breastfeed if you could. I did actually buy formula at one point - I've never used it – just because when it was really painful she was going through a growth spurt and she was feeding a lot in the night and it was really, really hurting. And I thought oh I can't go through another night like that, and so I bought formula, but she slept all through the night so I didn't need to use it. And the midwives said there's nothing wrong with it – if you need to use it – use it. But I get the impression that the Plunket nurses obviously they're trained to tell you about breastfeeding and to breastfeed rather than bottle feed. Apart from that I've never had any issues 'cos I was always going to breastfeed. (Mackenzie, June 2014)*

Even though Mackenzie identified that she is a pro-breastfeeding mother, she said that she picked up on pressure to breastfeed from Plunket nurses who were 'obviously' trained to recommend only breastfeeding. The pro-breastfeeding culture among Plunket nurses, and her own experience of nearly resorting to formula feeding enabled Mackenzie to empathise with how women who could not breastfeed would feel when interacting with Plunket nurses.

According to Thompson (2008), the employment of a nurse as a Family Health Nurse, who provides a direct form of health care intervention exercises a direct form of power from the central government. The Plunket nurses in New Zealand have a similar role to the Child and Family Health Nurses in Australia, Maternal and Child Health Nurses in the UK and Public Health Nurses who work in the community in both America and Canada (Cafhna, 2016; Plunket, 2016; Thompson, 2008). Plunket nurses provide a kind of health intervention in a more direct manner that some women may perceive as judgemental (Plunket, 2016; Thompson, 2008). As an example, the Sunday Star-Times newspaper in New Zealand (Harve, 2013), published an article about lying to health professionals. They pointed out that in New Zealand the pressure that mothers feel from the health professionals makes them lie



about their mothering practices. In the article, a mother explained that she had to lie to a Plunket nurse who visited her baby at five months in order to defend her identity as a good mother. The mothers who were interviewed by the newspaper reporter claimed that they even warned each other to lie to the Plunket nurses as well. One mother interviewed for the article said: *"I haven't even told them I use formula because it is so looked down upon. I have lots of friends who have done the same thing. If we weren't made to feel like a failure, we wouldn't lie"* (Harve, 2013). This mother described how she had lied to her Plunket nurse about the duration of exclusively breastfeeding her five-month-old baby as she sometimes had to give her formula. Therefore, lying to Plunket nurses has become common practice amongst some mothers who fear the stigma around not breastfeeding (Harve, 2013).

In this research, one participant who was furious about pressure on mothers to breastfeed from within the New Zealand health system was Nicole, who exclusively breastfed her baby for six months. Nicole described the environment in which she was hospitalised due to pregnancy complications. She spoke about many posters on breastfeeding and was tired of being repeatedly advised to breastfeed by different lactation consultants several times per day. Nicole said that she knows breast is best because *"it's shoved down our throats everywhere we go"* (Nicole, May 2014)

*When I was in the hospital I made the comment to my mum one day that if I was unable to breastfeed I would've felt very overwhelmed seeing three lactation consultants all in the space of four hours and I felt it was overkill. Yes, you need a lactation consultant in the neonates, you need one in the ward, but you don't need them all the time. While I was pregnant, I spent a large amount of time in the hospital, and I was quite overwhelmed with how many posters there were about breastfeeding everywhere. There are so many posters; that was one thing. I was standing waiting for the lift one day and where I was standing I could see five posters about breastfeeding. I was planning on breastfeeding, there was no way I wasn't going to unless I couldn't, but I was standing going "even I'm put off now". I don't*

*want to breastfeed if this is ... you know. So definitely, there is far too much pressure. We all know that breast is best because "it's shoved down our throats everywhere we go", but it's not necessarily always best because if the mum's not happy the baby's not happy. There is far too much pressure. I think, the pressure is huge in society to breastfeed, but you don't expect that when you've just had a baby from within that area. (Nicole, May 2014)*

Although Nicole had an antenatal intention to six months exclusively breastfeed and was very supportive of breastfeeding, she stated that “even I’m put off now” in response to her experience of visual and verbal pressures to breastfeed in the hospital. According to Murphy (2003)<sup>85</sup>, breastfeeding mothers show their resistance to the breastfeeding discourses made by the health experts such as “breast is best” or “breastfeeding mother is a good mother” through forms of embodied resistance:

*“In many ways, the women's resistance to the discourses of professional technical expertise is best seen as embodying rather than challenging the rationality of contemporary liberalism. Within this rationality, the responsible and moral actor is not the one who conforms blindly to expert recommendations. Rather she is expected to subject such recommendations to evaluation and questioning, operating as an informed consumer. In defending their feeding practices as legitimate, the women make use of the subject position of entrepreneurial citizen that is characteristic of contemporary liberalism. Much of their talk is directed towards demonstrating that they have acted responsibly by subjecting the advice offered to critical appraisal and that their actions are the prudent outcome of such deliberations.” (Murphy, 2003, P.35).*

According to Murphy (2003) mothers expect to have the ability to question or challenge the expert recommendations related to infant feeding in a liberal society as an informed health consumer. Brianna a first-time mother who exclusively breastfed her son for more than five months spoke about the pressure on the mothers to breastfeed their children as well. She suggested that breastfeeding promotion in New Zealand has become “really daunting”. She

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<sup>85</sup> Retrieved from: <http://eprints.nottingham.ac.uk/777/1/> . Murphy, Elizabeth (2003) Expertise and forms of knowledge in the government of families. *Sociological Review*, 51 (4). pp. 433-462. ISSN 0038-0261. Accessed date: 20/01/2017.

believed that encouraging mothers to breastfeed their children is excellent, but the health messages could end up stigmatising women.

*I exclusively breastfeed and I think that that's best for me and for my baby and I would encourage anyone else to do it. But I just feel like there could be more support for bottle feeding [formula feeding] as well because at the end of the day it's about a baby being fed by a mother who loves him. So while I do honestly believe that breastfeeding is best. I would find it really daunting if I couldn't breastfeed to be surrounded by that kind of ... yeah. So I think that's something that while it's great to encourage people I think it's something to be aware of, that you can actually be - not offending people, but you could be pushing people to the outskirts by almost implying that if you're not breastfeeding then you're some kind of villain or you're doing some kind of harm to your child, because in the bigger picture I think that that's not really what it's about. Yeah I think in lots of cases it's best that somebody just says if breastfeeding isn't working don't worry about it, try formula, that's perfectly fine. But that's not the advice that so many people get and they feel guilty or they feel like they're a failure because they can't do it, when really it's completely unrelated to motherhood and their ability to be a mother. I think they've put a lot of pressure and guilt around it. It's something that I never thought about before I was a mother but it became very evident as soon as I had anything to do with any health – that's the midwife, the lactation consultants at the hospital, Plunket, the Well Child nurse. While they can promote it yeah sometimes I think there's too much pressure. (Brianna, February 2014)*

Brianna suggests that the New Zealand health system puts too much pressure on breastfeeding and that this may cause guilt among some mothers who cannot breastfeed and may also feel like a failure. Brianna claimed that she had never thought about pressure and guilt around the breastfeeding until she became a mother herself. A Foucauldian analysis of breastfeeding support from health professionals suggests that this kind of encouragement is a form of “quiet coercion” (Foucault, 1977) aimed at creating “docile maternal bodies” who select the infant feeding method based on expert advice and government policies. In other words this quiet coercion creates “normalising judgements” that encourage certain courses of action and discourage others (Murphy, 2003). When formula feeding is introduced to the

public as a dangerous and risky method of infant feeding, it means that a good mother never formula feeds her baby (Murphy, 2003, 2004). Also, the vast majority of discourses about the health benefits of breastfeeding imply that only careless and irresponsible mothers give formula to their infants. Therefore, Murphy (2003), has pointed out that these health discourses from governments and health experts are aimed at controlling mothers through creating “self-policing subjects”.

Addison was another participant who agreed that there is pressure to breastfeed exclusively from health professionals in New Zealand. Although she exclusively breastfed her son for more than five months, she said that: “the term exclusive breastfeeding is exclusive”. Addison spoke about the health benefits of breastfeeding and the fact that it would be better if health professionals support mothers to breastfeed regardless of the exclusivity of breastfeeding. Addison believes that if the health professionals put pressure on mothers to breastfeed exclusively women may give up breastfeeding altogether which is not good for their babies’ health.

*I think the term ‘exclusive breastfeeding’ is exclusive. You know I think it’s good that women continue to breastfeed for as long as they can, and if women can do that alongside introducing solids or maybe using formula feeding when they need to, I think women would actually breastfeed for longer. And I think the health benefits of feeding for longer, even if it is only one feed a day or when they can, I think that’s better than completely giving up. And I think that’s what happens, is women completely give up breastfeeding because exclusive breastfeeding gives you this idea that it has to be everything or nothing. And that’s what I’ve found from a lot of my friends is they thought that oh because they weren’t feeding most of the time then their child was not going to get any of the benefits so then they just gave up altogether. I think because it gives you that timeframe too, people might feel they’ve failed if they breastfeed for five months and three weeks and not the full six months. I’ve got lots of friends that have health professionals advise them they’re not allowed to talk about bottle feeding or mixed feeding and I think that’s a huge area for women. I think if they knew that they could continue to breastfeed when they could but maybe substitute with formula feeding or food if their child wasn’t putting weight on or they weren’t able to maintain a supply and that they could even return*

*to fully breastfeeding their child at some point. I think that would make a huge difference. I think women are very good at being able to make good decisions for their children but if they don't have the information or they've been told misinformation I think it makes it really hard and there's I think probably a lot of resentment and regrets that women have when they look back and think oh I shouldn't have listened to that person. I should have just done what I thought was best. But you don't really get a second shot – you know children are for life whatever you do. (Addison, May 2014)*

Addison also spoke about the necessity of infant feeding knowledge for the mothers instead of only pressure on them to breastfeed. She believes that mothers are best placed to make a decision about their babies' nutrition, and it would be better if they had all the appropriate information about both breast milk and formula from the health professionals rather than inappropriate sources such as unreliable information provided by commercial companies on the Internet. However, according to the guidelines on implementing and monitoring the International Code of Marketing of Breast Milk Substitutes in New Zealand (Ministry of Health, 2007), detailed information related to formula also may be provided to the parents who want to formula feed their infants. Research participants who resorted to using infant formula reported receiving very little practical advice from health professionals regarding this form of infant feeding. This lack of support also points to the dominance of exclusive breastfeeding within the New Zealand health system.

A study of health professional support for breastfeeding (Huack et al. 2011) found that unhelpful advice from the child health nurses was the most common reason for stopping breastfeeding. Similarly, international qualitative research studies have pointed out that mothers complain about inadequate support from healthcare professionals especially in relation to conflicting advice. Also, some health professionals lack sufficient skills and

knowledge related to breastfeeding and some of them even needed to improve their attitudes towards breastfeeding (Clifford & McIntyre, 2008; Furber & Thomson, 2010).

According to Foucault (1972) in each relationship there is one person or group who is knowledgeable and exerts power over another party who is positioned as less knowledgeable. Health professionals have secured control over the domain of childbirth through the creation of a body of knowledge which is learnt through formal training within accredited institutions and protected through practitioner registration. The hierarchical relationship that is created between trained professionals and untrained lay people gives rise to the term “knowledge is power”. Surveillance and regulation are also technologies of power through which bodies are controlled and identities, such as good or bad mothers, produced. Therefore, it can be concluded that the relationship between the health professionals and the mothers cannot be unrelated to power. The deployment of professional knowledge, as a form of social control, ensures that there is a significant association between power and resistance (Foucault, 1972). As an example, the recommended guideline of six months exclusive breastfeeding by WHO/UNICEF is contested by the mothers in most developed countries (WHO, 2016a). The WHO statistics for six months exclusive breastfeeding indicate this resistance to the pressure to breastfeed exclusively for six months (WHO, 2016a). For example, in the UK and New Zealand, the data shows only 1% and 16% of babies are breastfed exclusively for the first six months respectively (WHO, 2014b, 2016a).

Low breastfeeding rates in many developed countries may be due to the influence of the “feminist movements” in these countries throughout the 20<sup>th</sup> century which emphasised autonomy and bodily integrity. One of the aims of the feminist movement was to empower women and support them to make informed decisions regarding the childbearing process

(Beckett, 2005). McCarter-Spaulling (2008) for example has pointed out that there are many tensions about breastfeeding as a sex-specific practice and feminist discourses which have emphasised gender neutral parenting. These tensions cannot be solved simply in developed countries where gender equity is a key debate. Although there are advantages in breastfeeding not only for the child and mother, it cannot be denied that breastfeeding is not completely fair to women as it is a “*time and labour intensive*” and when lactation issues arise it could be very painful and difficult for a breastfeeding mother (Debevec & Evanson, 2016). Therefore, breastfeeding should be a “*choice*” for every mother regardless of her socio-economic class through promoting the physical, mental and socio-economic welfare of the breastfeeding mother and her child. According to McCarter-Spaulling (2008), breastfeeding support should not be limited to expert knowledge or encouragement, but it must cover the values of women’s autonomy and women’s bodies as well.

Research has shown that whenever the interaction between mothers and health professionals involves the passing of skills or medical advice, forms of power resulting in conformity and resistance will be in play (Bloor & McIntosh, 1990; Heritage & Sefi, 1992; Peckover, 2002). An example of this can be seen in mothers who want to follow anecdotal and experiential information related to child rearing while at the same time also trying to protect their identities as “good mothers”.

## **Conclusion**

Most mothers who participated in this research had a favourable attitude towards breastfeeding, however a minority gave up their intended six months exclusive breastfeeding

practice as a result of physical, social and/or psychological barriers. These mothers felt that there was no alternative to early weaning from the breast.

Moreover, most mothers in this research spoke about feeling pressured to breastfeed within the New Zealand health system. Consequently, resistance to breastfeeding as a result of feeling pressured, guilt, and/or perceived judgements around formula feeding were the key findings of this chapter. Michael Foucault's theories of "governmentality" (Foucault, 1972) "bio-power" (Foucault, 1977), "medicalization" (Foucault, 1973) and "Panopticism" (Foucault, 1977) were applied for supporting the findings related to the mothers' resistance to breastfeeding, especially to exclusive breastfeeding for six months.

In the current research some participants suggested that resistance to breastfeeding occurs as a result of perceived judgements around formula feeding, feeling guilty and pressured to breastfeed. It is important to note that the institutional role of health professionals who are employed or paid by the government and have a duty to regulate and monitor their clients' behaviour based on the health organisations guidelines cannot be ignored. However, in the current research mothers appreciated and acknowledged the effective support that they had received from their LMC midwives who reinforced and strengthened their self-esteem enabling them to sustain their breastfeeding practice and cope with any lactation issues including pain. The LMC midwives also encouraged these women to look after their children appropriately regardless of the method of infant feeding and most importantly respected the mothers' autonomy.

Health professionals are included in the social networks around the mothers that influence the breastfeeding behaviour of these mothers. The practices of health professionals are also socially constructed, shaped and influenced by their professional training, national and



international policy context, the institutional environment in which they work as well as their colleagues. For example, registered midwives practise differently compared to Plunket nurses. Registered midwives may also practise differently when they work in different environments or different institutions. For example, the practice of LMC midwives who work in a community are influenced by the social networks at the community level, while the practice of staff midwives is influenced by the hospital policies and protocols in which the midwives are embedded. The next chapter considers the role of social media in the provision of breastfeeding support.

## ***Chapter 9: “I did a lot of Googling”: Exclusive Breastfeeding Support Through Social Media***

### **Introduction**

The previous chapter discussed the quality of breastfeeding support from health professionals in which most participants spoke about feeling pressured to breastfeed within the New Zealand health system. Ironically, in the current chapter, most women had received substantial health information and social support from the social media including health-focused websites that have content that is mainly written by health professionals (2001). For instance, the majority of participants in this doctoral research spoke about the “Breastfeedingnz Facebook page” as the best source of on-line information, skill and emotional support for them to breastfeed their infants successfully. This Facebook page is an online community that is supported by the New Zealand’s Ministry of Health<sup>86</sup>, volunteer peers and health professionals.

Most participants in this research are from the “Generation Y”, a group who use the Internet frequently for seeking online information, however, none of their health care providers referred these “Generation Y” mothers to high-quality parenting websites and reliable online health information. In addition, Facebook, in particular, is identified as an effective source of peer support for the breastfeeding mothers who participated in this research. The theory related to the “strength of weak ties” proposed by Granovetter (1973) is

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<sup>86</sup> [www.facebook.com/breastfeedingnz](http://www.facebook.com/breastfeedingnz). Accessed date: 20/01/2017.

used in this chapter as a framework to explore the quality of social support provided through Facebook. An application of the strength of weak ties theory to breastfeeding mothers on Facebook identifies that weak ties act like bridges that diffuse information related to breastfeeding and provide an effective kind of social support by creating a sense of community. Another important finding related to support from social media related to participants who immigrated to New Zealand or had family members who were geographically distant. These participants spoke about the emotional support from their significant others through Skype. Therefore, theories related to “landscapes of care” (Milligan & Wiles, 2010) are applied to explore the quality of support through Skype. It is identified that in this digital era the traditional definition of proximity as physical closeness can equally refer to emotional closeness and it is possible that someone who is geographically distant can still provide support which is emotionally proximate.

The majority of participants in the current research talked about the breastfeeding support from peers, health professionals and family through the Internet. Therefore, this chapter considers the influence of social media on intention, initiation and duration of exclusive breastfeeding.

## **Peer Support**

Social support is one of the most influential factors on breastfeeding intention, initiation and duration (Duckett et al., 1998; Matich & Sims, 1992; Raj & Plichta, 1998; Vari, Camburn, & Henly, 2000). Social support can be described as the interpersonal transactions which indicate a favourable attitude towards a behaviour or approval and acceptance of an idea (Vari et al., 2000). The variety of social supports were discussed comprehensively in

chapter six<sup>87</sup> and chapter seven<sup>88</sup> of this thesis where the theory of stress, coping strategies and social support proposed by Thoits (1995), was applied to interpret the findings related to the importance of social support from family members. As mentioned in those chapters, there are two important social support sources for an individual in a stressful situation including those who are “significant others” and those who are “similar others”. Significant others are the relatives who do not have the same experience of a stressor (e.g. a husband who supports his wife for her breastfeeding). Similar others have the experience of the same stressor and they can provide social supports more effectively than significant others (Thoits, 2011). The breastfeeding mothers in the “Breastfeedingnz Facebook” group, who support other new mothers to breastfeed their babies successfully, are an example of support provided by similar others.

According to a systematic review (Sikorski, Renfrew, Pindoria, & Wade, 2003), providing peer support was one of the most successful methods for promoting exclusive breastfeeding to the rate of 80% or more in some countries. Research has shown that lay supporters are very successful in supporting breastfeeding mothers because they have similar experiences as well as communication through a shared language (Dykes, 2005; Hoddinott, Chalmers, & Pill, 2006; Meier, Olson, Benton, Eghtedary, & Song, 2007; Rossman et al., 2010; Scott & Mostyn, 2003).

Wade et al. (2009), point out that peer supporters have the ability to help mothers overcome their lactation issues effectively and the support from peers can improve mothers’ mental health via enhancing their self-confidence and self-efficacy. There are other

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<sup>87</sup> Chapter six: The impact of family culture on the six months exclusive breastfeeding.

<sup>88</sup> Chapter seven: Breastfeeding support from male family members.

advantages of breastfeeding support from similar others including informal interactions alongside providing advocacy and emotional support (Hegney, Fallon, & O'Brien, 2008; Hoddinott et al., 2006; Scott & Mostyn, 2003). Having a chance to ask questions (Rossman et al., 2010), and the ability to talk freely about the personal choices related to the method of infant feeding have been mentioned by mothers as benefits of peer support (Nankunda, Tumwine, Nankabirwa, & Tylleskär, 2010). Breastfeeding peer support fosters and promotes hope in breastfeeding mothers who are struggling with lactation issues and this reassurance may result in a longer duration of breastfeeding overall (Thomson, Crossland, & Dykes, 2012). In this digital age, being informed and getting involved means being connected and being online, therefore, most breastfeeding mothers find some of their peer supporters through online social networking.

## **Generation Y**

Most participants (25/30) in this research were born between 1980 and 1990; mothers who are younger than 36 years of age are from “Generation Y” (Beard, 2014). Even though ‘Generation Y’ is a category that has been developed by marketing firms in order to create targeted audiences for the selling of consumer products (Cui, Trent, Sullivan, & Matiru, 2003) there are some useful features of this cohort that may be applicable to breastfeeding support. It is important to note that people who belong to this generation tend to use the internet for everything (Beard, 2014; Wolynn, 2012). According to the Western Region WIC Electronic Technology Project in the United States (California Department of Public Health, 2011), most mothers from the “Generation Y” have a smartphone, use text as a primary mode of communication, use only electronic information and prefer to receive individualised

support. They view social media, such as smartphone applications (apps) and on-line forums, as the most reliable sources of information, and they can join virtual communities with only one click (Wolynn, 2012).

Access to the internet and being constantly wired and connected is not limited to the high-income nations (Wolynn, 2012). In poor and middle-income countries, this generation has the latest smartphones with Wi-Fi connection even though they may not have adequate food or running water (Wolynn, 2012). Generation Y's world is summarised inside a pocket-sized smartphone with lots of social networking apps, and this world is changing and growing rapidly, and they are not going to be offline in the near future (Wolynn, 2012). For "Generation Y", face to face communication is fading as texting becomes the preferred method of interaction (Beard, 2014; Wolynn, 2012). Consequently, breastfeeding advocates or lactation consultants should find a way to connect with this generation through sending text messages. According to Todd Wolynn<sup>89</sup> (2012, p. 365), the best method of providing breastfeeding support in this digital age is "*to position ourselves firmly on the Generation Y axis*". Mothers from "Generation Y", do not access information about breastfeeding from health professionals, books and traditional media in a similar way to their mothers' generation (Wolynn, 2012). Wolynn (2012), recommends that breastfeeding advocates and health professionals should push the breastfeeding information and advice through the social media directly to the smartphones that are inside of the pockets of the targeted audience.

Online friends or peers are key sources of social support for "Generation Y" mothers, and they find these contacts through the online social network (Wolynn, 2012). However, having

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<sup>89</sup> Retrieved from: National Breastfeeding Centre, New York, USA. Todd Wolynn, MD, MMM, IBCLC. <http://www.nbfcenter.com/todd-wolynn-md.html> , Accessed date: 20/01/2017.

friends has new meaning for this generation; they may have lots of friends across the world whom they may never have met (Wolynn, 2012). It is possible for relationships with these virtual friends to be close and to have the ability to provide emotional and informational support via the Internet in a similar way to family and friends who are physically proximate.

### **Geographically dislocated care and support**

In a study of the relationships between “proximity” and “distance” as well as caring “for” and caring “about”, Milligan and Wiles (2010) argue that the provision of social and emotional support can be geographically distant yet still proximate. Sometimes giving “care” or providing support emotionally or practically is defined as “work”, while others argue that caring is more than work and it is doing something for a loved one in a mutual relationship of reciprocity (Milligan & Wiles, 2010; Rose & Bruce, 1995). There are alternative definitions of “care” as well, including “care” as a dependency (from a dominant caregiver to a subordinate recipient) in which care is a “unidirectional activity” (from an active caregiver to a passive recipient) (Oliver & Hyland, 1999; Shakespeare, 2013). In order to disrupt this hierarchical relationship between the caregiver and recipient, Fine and Glendinning (2005) developed the idea that care creates a mutual dependence that both caregiver and care recipient are involved in creating. However, geographers argue over the difference between “caring for” and “caring about” (Blustein, 1991; Graham, 1991; Milligan & Wiles, 2010). Twigg and Atkin (1994), have defined “caring for” as the performance of a task which it can be formal or informal, paid or unpaid like doing housework, babysitting or caring for a pet. While “caring for” is personal and it can be done at a distance as well (e.g. Professional and paid care for an elderly person at home via the use of technology devices)

(Blustein, 1991; Milligan & Wiles, 2010). “Caring for” tends to be transactional, lacking the emotional connectedness that is associated with “caring about”.

“Caring about” refers to the emotional aspects of care, and most importantly “caring about” is not limited to geographical scales for calculating distance and closeness. As a result, “caring about” underestimates the importance of contact and closeness and focuses more on the quality of care and providing adequate emotional support regardless of proximity (e.g. providing care for a loved one or a friend through the social media including Skype, video-link or telephone) (Milligan & Wiles, 2010). Both improvements in digital care, and the wealth of electronic information available, are contributing to the collapse of the “space-time continuum”<sup>90</sup> (Milligan & Wiles, 2010). For example, care can be provided at a specific time without physical presence of a caregiver, which was impossible prior to the invention of digital care. Therefore, the traditional definition of proximity as physical closeness now can equally refer to emotional or social closeness. It is possible that someone who is physically distant or even living in another country can still provide an embodied care that is emotionally close and proximate (Milligan & Wiles, 2010).

According to Milligan and Wiles (2010), the concept of care is not limited to “*particular spatial locations, contexts or scales, and refusing to leave it separated into overly narrow realms of the political, social, economic or health, or care as welfare, institutional or*

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<sup>90</sup> Retrieved from: Dictionary.com. Space-time. The four-dimensional continuum in which all objects are located and all events occur, viewed as a single and continuous framework for existence. Space-time consists of length, width, depth, and time. <http://www.dictionary.com/browse/space-time-continuum> . Accessed date: 20/01/2017



*embodied*” (Milligan & Wiles, 2010, p. 742). Milligan and Wiles (2010) claim that “caring about” does not necessarily refer to physical distance or disembodied care. Likewise, “caring for” is not necessarily reliant on physical proximity and embodied care (Milligan, 2012). Consequently, “caring about” should be considered as an embodied experience instead of the disembodied phenomenon, even if this “caring about” occurs at a distance. “Caring about” can be performed across spaces and time zones through different configurations of contact (Milligan & Wiles, 2010). For example, in the current research, family members, who are living in another country and physically distant, are able to provide emotionally proximate care to new mothers via Skype or telephone and to encourage them to breastfeed their infants successfully.

Furthermore, from a geography of health point of view, since the mid-1970s in many developed countries ideas around “care-in-place” have emerged through the development of community care or “deinstitutionalized” care services (Milligan & Wiles, 2010). However, the concept of “community care” does not necessarily refer to providing care by local communities. The actual meaning of “community care” is the development of new environments of providing care which are located outside of traditional institutional spaces, such as hospitals (Milligan & Wiles, 2010). According to Domenech and Tirado (1997), the term “extititutional arrangements” refers to the development of new spaces in which practices may be similar to those provided through traditional institutions, but are virtual in the sense that they are not confined to a building. *“The old institutional forms of attendance within a physical (institutional) structure are replaced by horizontal processes that are dispersed across space and which can include physical, affective and virtual networks of care”* (Milligan & Wiles, 2010, p. 746). For example, a breastfeeding coffee group which

traditionally was inside of a building in the local community has moved to the social media as a “Breastfeedingnz Facebook page”. This virtual community is able to provide effective skilled, emotional and peer support for breastfeeding mothers in New Zealand.

### **The “strength of weak ties”**

By increasing the amount of research on human behaviour regarding social interaction and social networking some scholars argue that a behaviour can be shaped by an individual’s social network, while others have pointed out that people can manipulate their social networks to reach their specific targets (Dasgupta, Southerton, Ulph, & Ulph, 2016; Granovetter, 1973; Kalkbrenner & Roosen, 2016). However, Granovetter (1973) proposed a theory which indicates that “weak ties” are a key resource that may be used to easily circulate information and ideas across communities as well as creating a “sense of community”. There are some characteristics for identifying a “tie” as a weak or strong including the amount of time that the individuals spend together, intimacy and the emotional relationship between the ties (Granovetter, 1973). For example, “strong ties” are between two close friends or family members. On the contrary, weak ties refer to distant acquaintances. A social network or a community is composed of individuals who are connected together by long-range relationships known as weak ties. Granovetter (1973) proposed that weak ties in a social network act as bridges across networks, therefore they play a key role in the diffusion of new information and opinions. Granovetter (1973) claims that information and ideas can reach a lot of people and travel longer distance if circulated by “weak ties” instead of “strong ties”. Although Granovetter’s theory considers only offline social networks and actual community organisations, Grabowicz et al. (2012) examined the “strength of weak ties” for online social

networking and found that this theory applies to online social networks as well. As an example, “Facebook” which is currently the most popular online social networking site globally with 1,710,000,000 monthly visitors<sup>91</sup>, enables its members to send a friend request to other members regardless of the previous relationship or familiarity. Consequently, the number of friends for each member of Facebook ranges from zero to about 600 friends (Lewis, Kaufman, Gonzalez, Wimmer, & Christakis, 2008). Research has shown that Facebook friends illustrate the “weak ties” relationship through which information can circulate faster than family members or close friends (Lewis et al., 2008; Mayer & Puller, 2008). Therefore, the social media and online social networks can be a useful place for breastfeeding advocates to promote breastfeeding and to send health messages to a wider audience by using weak ties to virtual acquaintances.

## **Findings**

The majority of mothers (22 out of 30) in the current research used the internet and social media to support their breastfeeding practices. Most used “Facebook” community groups and parenting platforms including the “baby centre”<sup>92</sup> website for breastfeeding support. Some of the participants who had family members living in another country used Skype or telephone.

After analysing the qualitative data collected, four major themes emerged: Generation Y mothers need reliable online infant feeding information; smartphone apps can be used to

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<sup>91</sup> Retrieved from: Dream grow. Top 15 most popular social networking sites and 10 Apps. <http://www.dreamgrow.com/top-15-most-popular-social-networking-sites/>, Accessed date: 20/01/2017.

<sup>92</sup> Retrieved from: Baby Centre. <http://www.babycentre.co.uk/>, Accessed date: 20/01/2017.

promote breastfeeding; breastfeeding mothers use Facebook in ways that are consistent with Granovetter's "weak ties" arguments, and geographically distant infant feeding may be supported by significant others through using Skype. I will discuss and illustrate each of these finding using examples from the interviews as well as the relevant literature.

### **Theme 1. Generation Y mothers need reliable online infant feeding information**

In 2015, the population of New Zealand was approximately 4.6 million and the number of active smartphones was 3,959,000<sup>93</sup>, indicating that there were 86 active smartphones per 100 individuals. Although there are some people who use more than one mobile phone, these numbers demonstrate the popularity of the mobile phone with an Internet connection in New Zealand. In addition, in 2015, statistics show that there are 1,926,000 broadband Internet connections including all business and residential units in New Zealand<sup>94</sup>. In 2013, most households in New Zealand had access to a mobile phone, with the "Couple with child(ren)" category having the highest percentage of access to a mobile phone (91.6%). Similarly, about 92% of "Couple with child(ren)" households had access to the Internet which was the highest percentage compared to other types of households including single parent and couple only households (Statistics New Zealand, 2015).

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<sup>93</sup> Retrieved from: Statistics New Zealand, Internet service provider survey: 2015. Commentary. [http://www.stats.govt.nz/browse\\_for\\_stats/industry\\_sectors/information\\_technology\\_and\\_communications/ISPSurvey\\_HOTP2015/Commentary.aspx](http://www.stats.govt.nz/browse_for_stats/industry_sectors/information_technology_and_communications/ISPSurvey_HOTP2015/Commentary.aspx). Accessed date: 20/01/2017.

<sup>94</sup> Retrieved from: Statistics New Zealand, Internet service provider survey: 2015. Key facts. [http://www.stats.govt.nz/browse\\_for\\_stats/industry\\_sectors/information\\_technology\\_and\\_communications/ISPSurvey\\_HOTP2015.aspx](http://www.stats.govt.nz/browse_for_stats/industry_sectors/information_technology_and_communications/ISPSurvey_HOTP2015.aspx). Accessed date: 20/01/2017.

Moreover, as a result of the development of social media and the availability of medical information on the Internet, the clients of health professionals have become increasingly empowered (Henwood, Wyatt, Hart, & Smith, 2003; Naslund, Aschbrenner, Marsch, & Bartels, 2016; Vassilev et al., 2015). In the digital age, the development of electronic information, the availability of medical knowledge on the Internet and the increasing popularity of online communities has changed the passive role of patients to health consumers who use the Internet to improve their self-management capabilities and self-care skills (Riva, Camerini, Allam, & Schulz, 2014; Vassilev et al., 2015). Ferguson (1997) has argued that health professionals are also experiencing a new identity as a “facilitator” which involves a shift from their previous role as an authority figure to a more supportive partnership approach. There is a vast literature on the existence of power in face-to-face interactions between health professionals and their clients (Constantino & Nelson, 2009; Ochocka, Janzen, & Nelson, 2002; Roberts, 2005), however, online support from the health professionals tends to be more egalitarian and patient centred (Yellowlees, Richard Chan, & Burke Parish, 2015). It is notable that, electronic information plays a critical role in educating parents during the pregnancy, birth and postpartum periods (Jang, Dworkin, & Hessel, 2015; Walker, Dworkin, & Connell, 2011). Therefore, the number of new mothers who seek information, advice and guidance related to self-care or child-care is increasing (Jang et al., 2015; Walker et al., 2011). Some scholars argue that information seeking behaviour may depend on the parents’ socioeconomic status (Guerra-Reyes, Christie, Prabhakar, Harris, & Siek, 2016). However, some studies have found that most new mothers regardless of their demographics or socioeconomic classes are seeking information about postpartum issues online, sharing their experiences and connecting with other mothers or health professionals

through social networking (Jang et al., 2015; Walker et al., 2011). For example, when I asked Naomi (a health professional) about the key influence on her decision to breastfeed her baby, she answered “the Internet”:

*I think the Internet because I think there are good websites by medical experts, and they are quite reliable. (Naomi, November 2013)*

Although Naomi considered the Internet to be trustworthy, Madelyn (a medical practitioner) had doubts that seeking information from social media was worthwhile.

*Sometimes I read the essential mum’s website, but there are a lot of individual people’s experiences. I don’t know how much is actually worthwhile... (Madelyn, October 2013.*

As a medical practitioner, Madelyn has been trained to prioritise the efficacy of peer reviewed evidence based information over personal experience and this may account for why she is sceptical about the value of these websites. Ashley (a teacher) talked about “looking right” for seeking online information related to breastfeeding.

*Yeah. I mean, there’s a lot of information out there, as long as you’re looking at the right kind of stuff, it’s all good (Ashley, February 2014).*

Looking right is associated with websites that are reliable and managed by the health professionals. Charlotte, a lecturer, also spoke about the information that she searched for, using Google:

*I did consult lots of websites. I didn’t join up on any of them. Yeah or write to any of them - but I did read a lot. Yeah and I searched Google – pretty much the kind of advice you’d ask your mum. I’ve Googled all of that. (Charlotte, February 2014)*

Charlotte reported that she only Googled and did not join any online communities or actively seek online advice. Charlotte considered that online health information can be equal to the kind of information provided by maternal grandmothers in relation to breastfeeding, implying that this source of information is not similar to evidence-based advice from health professionals. In the current research, most participants searched the Internet for postpartum information and advice to support breastfeeding in order to facilitate self-care and improve their health literacy. This finding is consistent with the finding of research by Guerra-Reyes et al. (2016) who identified that for new mothers the most common topics that were searched online during the postpartum period were information about establishing breastfeeding and lactation issues. Research has shown that new mothers often use the Internet for seeking information after the birth of their infants (Gibson & Hanson, 2013; Jang et al., 2015).

Abigail (who completed a postgraduate degree), for example, spoke about seeking advice for her lactation issues from the Baby Centre website:

*Well actually I did go and have a look when I had the blocked duct at various ways that you could help get it unblocked so I looked at the Baby Centre – yeah Baby Centre website and that’s quite good. (Abigail, October 2013)*

Using the Internet for seeking information related to self-care and child-care by new mothers during pregnancy and postpartum is well established (Bernhardt & Felter, 2004; Guerra-Reyes et al., 2016; Larsson, 2009; Shieh, Mays, McDaniel, & Yu, 2009). Similarly, Jocelyn (a teacher) also mentioned the availability of many parenting websites related to breastfeeding such as Baby Centre, which she accessed.

*I was also on “babycenter.com”, and there are a lot of forums regarding breastfeeding that I generally read about. (Jocelyn, March 2014)*

In the current research, Brianna who has completed an undergraduate degree also talked about the Internet as a useful tool for researching the postpartum issues that she faced:

*No, not while I was pregnant but since then I have done quite a lot of research online – yeah. I guess the thing is like I didn't really know what to research until it was happening 'cos it was really hard to know what to expect. Yeah that's what I found. (Brianna, February 2014)*

When I asked Brianna if she looked for online information related to breastfeeding during her pregnancy, she told me she just searched online during the postpartum period for health information. Similarly, a study about using online health information by Swedish women during pregnancy (Larsson, 2009) found that although most studies have shown that highly educated women do not rely on online health information (Guerra-Reyes et al., 2016; Kunst, Groot, Latthe, Latthe, & Khan, 2002; Weiss & Moore, 2003), the highly educated participants in Larsson's research viewed health information on the Internet as trustworthy. In addition, few clients discussed the health information that they had found online with their health care providers (Larsson, 2009; Diaz et al, 2002) unless the health professional started the discussion (Diaz et al., 2002). However, most patients appreciated their health professionals' opinions and recommendations about relevant health websites (Diaz et al., 2002), and would seek health information from those recommended websites (D'Alessandro, Kreiter, Kinzer, & Peterson, 2004).

Mila (who completed a postgraduate degree) also did not completely trust the Internet as a reliable resource for health information, and she said that there are “crazy things from the Internet”, but she said that there are a lot of useful websites as well.

*But as a resource, I think, obviously you have sort of outbursts, crazy things from the internet, but I think there's enough good websites and good forums. There's a wealth of information really, which is nice to be able to access, especially in the*



*middle of the night when you're a bit worried about stuff and you can't really phone anybody. You don't want to phone your midwife just on a ... you know, I'm having a little bit of a worry session. It's fine in the daytime, but you don't want to wake her up. So yeah, I find it really useful actually. (Mila, October 2013)*

Mila also talked about the benefits of the Internet such as the ability to access affordable and timely advice when a health professional is not readily available. Likewise, the advantages of the Internet as mentioned by Madge and O'Connor (2006) included convenience, availability and no need to book an appointment with a health professional for information or advice. Guerra-Reyes et al. (2016) have pointed out the availability of postpartum online health information empowered new mothers as well as normalised the stressful transition to motherhood.

It has been noted throughout this doctoral thesis, that most participants in this research are highly educated mothers who are younger than 36 years and from Generation Y. They used the Internet for health information and most of them mentioned that online health information was helpful for their self-care and their infant feeding practice, however, the content of websites as a reliable source for health information was controversial.

## **Theme 2. Smartphone apps can be a good option for promoting breastfeeding**

During the design of this doctoral research no interview question were considered that related to the device or the method of the Internet searching. Therefore, in this section I could not find more than two interview extracts related to the smartphone application as a good option for promoting breastfeeding. Even though I did not ask any participants about having a smartphone, most women who contributed to the current research had a smartphone, tablet

or iPad. They sent emails<sup>95</sup> and text messages to me about the arranging a time and venue for the face to face interview sessions as well as scheduling a suitable time for the telephone interviews. Therefore, searching the Internet using a smartphone is a new trend and although most of the research participants had access to a device as well as the internet they did not talk about the smartphone or apps during the face to face interview.

A participant in this research Mila said that she likes the Internet because she found it useful. Mila spoke about Googling on her smartphone all the time because that is what she does:

*I did do a lot of Googling 'cos that's what I do, I like the internet, I find it useful. So yeah, especially if you put a thing up there late at night and you're sort of thinking why isn't this working, you're Googling on your phone. I found that really helpful ... (Mila, October 2013)*

Mila talked about the availability, ease and value of using her phone for health information seeking. Research has shown that in this digital age smartphones can promote health and prevent illnesses simply by providing high-quality health information (Asiodu, Waters, Dailey, Lee, & Lyndon, 2015; Evans, Wallace, & Snider, 2012). A recent study by Guerra-Reyes et al. (2016) has identified that the most popular search engine for health information seeking was “Google” and that smartphones were the most common devices used by new mothers during the postpartum period regardless of their demographic status. The effectiveness of support using smartphone apps for people who wanted to manage their weight, diabetes and smoking is well documented (Asiodu et al., 2015; Evans, Abrams, Poropatich, Nielsen, & Wallace, 2012). One successful digital program in the USA, was

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<sup>95</sup> For example, by default, when you send an email from your iPhone, a "Sent from my iPhone" signature will be added to your message, or Android phones also have a similar signature.

“Text4Baby”. This project used smartphone apps to send health messages and provide support for the parents during the childbearing period (Evans, Abroms, et al., 2012). New mothers use their smartphone apps for finding information, sharing experiences, scheduling their infant's feeding and sleeping habits as well as contacting relatives and friends during the postpartum period (Frizzo-Barker & Chow-White, 2012; Gibson & Hanson, 2013; Lupton, Pedersen, & Thomas, 2016). Research has also shown that since current parenting services cannot fulfil the new mothers’ needs, these mothers prefer to use their phone apps to find online information related to childcare (Kraschnewski et al., 2014; Lupton et al., 2016). In addition, smartphone apps can be considered the most important source of education for disadvantaged mothers who are not able to easily access other resources such as face-to-face coffee groups due to cost or transport difficulties (Lupton et al., 2016; O'Higgins et al., 2014). Research on the effect of social media on breastfeeding amongst African-American first-time mothers (Asiodu et al. 2015), also found that using social media via smartphone was common among the participants regardless of their demographics and social class. However, Asiodu et al. (2015) suggest the content of social media should be culturally safe and competent to promote breastfeeding advice for all ethnic groups and minorities.

Naomi, a health professional and a migrant from China who is living in New Zealand as a permanent resident, still preferred to seek online health information in her native language. She spoke about the Chinese apps on her smartphone:

*I am using my I-Phone, I have an app [on my smartphone], it's called Baby Centre from the UK, and I have got some other apps in the Chinese language [her first language] too. They [the apps] have very very good information about baby stuff. And if something happened to my baby I always search the internet. (Naomi, November 2013)*

Similarly, recent research has shown that most people prefer to read educational information on their smartphone screens. Coughlin (2016), pointed out that the breastfeeding apps must be culturally tailored for each ethnic group and that these apps should be suitable for people with different levels of health literacy.

Several studies have shown that new mothers reported that parenting websites and smartphone apps are appreciated by the new mothers due to their convenience as a source of information (Kraschnewski et al., 2014; Lupton et al., 2016; O'Higgins et al., 2014). The benefits of social media for breastfeeding support was recounted as convenient, practical and valuable and the information provided by mobile apps acknowledged as useful and educational. Taki et al. (2014) claim that despite the fact that mothers are seeking information and support from social media particularly from the applications on their smartphones, there is not any evidence-based application for breastfeeding that health professionals can recommend to new mothers as a reliable source of information. Coughlin (2016) also pointed out that the best and cheapest methods of breastfeeding advocacy is using smartphone apps and that there is a need for the development of high-quality evidence-based smartphone apps to promote breastfeeding.

Research on the quality of infant feeding advice from online resources (Taki et al., 2014), identified that despite the popularity of smartphone apps amongst new parents, the quality of the content of these infant feeding apps has not been evaluated. The researchers highlighted the potential for social media developers to consider users' needs and provide research-tested information related to breastfeeding (Taki et al., 2014). Consequently, in 2016 a breastfeeding app was launched and pilot study conducted on first-time mothers (American

Academy of Pediatrics, 2016). This study has shown that the breastfeeding app significantly increased breastfeeding initiation and duration among the new mothers who used the app.

Social network theory suggests that “*social networks not only channel information, but also determine the value and importance of it*” (DiClemente, Crosby, & Kegler, 2009, p. 70) and this theory applies to “Generation Y” mothers (Beard, 2014). Beard (2014), suggested that for “Generation Y” breastfeeding mothers, providing learner-centred education and sending information to their cell phones should be employed as a method of breastfeeding promotion because using smartphone apps in health education has become a current trend among this generation.

### **Theme 3. The Strength of weak ties among breastfeeding mothers on Facebook**

Online health information is described as a faster and more accessible source of advice compared to consultation with a health professional (Morris, 2014). Facebook was reported as the most popular social networking website for new mothers seeking social support, information and advice through the Internet (Morris, 2014).

Research has shown that most women identify that breastfeeding is a social behaviour and that they should learn how to do it from other breastfeeding mothers (Good Mojab, 2000). Moreover, according to companion support or “belonging” theory, peer support by breastfeeding mothers or similar others who are the members of a breastfeeding community gives the individual a sense of belonging to the community, as it offers companionship in a shared social activity (Wills & Clark, 1991). Granovetter (1973), proposed that “weak ties” are key factors for enabling the circulation of information and ideas across the communities as well as creating a “sense of community”. Research has shown that new mothers

acknowledged the social support from Facebook as it allowed them to meet each other and reduce their feelings of social isolation (Gibson & Hanson, 2013; Lupton et al., 2016; Morris, 2014). Hailey (a health professional) appreciated a Facebook page that offers the opportunity for all new mothers who have a baby in the same month to help each other to overcome their common infant feeding issues:

*We've got a chat group in Facebook, and they're all really good. Due January group. It's just a group of ladies who were all due to have their babies in January. A lot of them are breastfeeding, some of them have had troubles and things as well, but just talking about it on there is quite good. (Hailey, February 2014)*

It is important to note that participation in social networks is one method of both receiving and providing social support particularly during the stressful postpartum transition period (Guerra-Reyes et al., 2016). Through sharing pictures and photographs in the social media environment, the possibility of discussion and the ability to be involved in the virtual community all play critical roles in supporting and promoting breastfeeding (Asiodu et al., 2015). Shared membership in a social network such as Facebook creates a higher level of trust amongst the members related to advice and information provided. However, this advice and knowledge is based on the experience of individuals and is not evidenced based (Bakshy, Messing, & Adamic, 2015). The recent inclusion of health professionals as facilitators or moderators in virtual health communities offers the opportunity to circulate evidence-based information amongst the members of these social networks (Bakshy et al., 2015; Guerra-Reyes et al., 2016; Huh, Yetisgen-Yildiz, & Pratt, 2013). Ava, a lecturer who participated in this research talked about the Breastfeedingnz Facebook group and how much she had trusted the advice from other breastfeeding mothers because she had asked advice from them related to her concerns about getting mastitis:

*Yep, I use Breastfeeding New Zealand. 'Cos last week I felt like I was getting mastitis or a blocked duct, and so I put a message on there just for advice. Yeah, I've read that page a lot. I have probably for maybe about three years. There's another one called Breast Mates as well, and the La Leche League, but I think I like the Breastfeeding New Zealand one the best. (Ava, February 2014)*

One reason for the increasing numbers of parenting websites and virtual communities is the increasing usage of the Internet by younger mothers. Another reason is a high demand for information and to reduce social isolation after the birth of their infants. These parenting or social networking websites provide effective emotional and informational supports as well as social connectedness for new mothers (Gibson & Hanson, 2013; Madge & O'Connor, 2006; Sarkadi & Bremberg, 2005). Research has identified that social networking and parenting forums seem to be equal to traditional neighbourhood communities and create a sense of empowerment in new mothers (Gibson & Hanson, 2013; Sarkadi & Bremberg, 2005). One of the research participants, Eva (who completed an undergraduate degree) was a member of a group on Facebook which included babies birthed in December 2013. The Facebook page included about 100 new mothers in almost the same situation who shared their experiences, asked questions and supported each other. Eva spoke about her successful experience of providing support and encouragement for other new mothers who maintained breastfeeding while having lactation issues.

*I'm part of a birth group online [Facebook], all babies are due around December, and it is about 100 of us in it, yea, it's amazing results. People are posting questions about breastfeeding all the time, Is it normal? What shall I do? I think I need to supplement, or lots and lots of different things. I think I have helped a lot of girls, feel like they can keep going. And also it's interesting to see how many amongst the 100, already used formula and how many were still breastfeeding. You can ask questions that are worrying, and mums are gonna tell you what you should give to the baby. Just getting other people's experiences and opinions. (Eva, February 2014)*

Eva mentioned the pro-breastfeeding environment of their Facebook group titled “Due in December” and said that most mothers breastfed their babies which she found encouraging<sup>96</sup>. Research by Madge and O’Connor (2006) has indicated that mothers who engage in social networking may become empowered by realising that other mothers also have the same challenges and may try harder to overcome these problems as a result. Sharing experiences is one of the most important benefits of social networking as new mothers have the opportunity to develop feelings of normalcy, gain strength and reassurance (Brady & Guerin, 2010; Gibson & Hanson, 2013; Madge & O’Connor, 2006). Mila (who completed a postgraduate degree) also talked about gaining hope and reassurance by reading other mothers’ challenges and the lactation issues that they had overcome.

*There were lots of good forums and web pages and stuff saying oh, look, people get sore but just persevere through it, it’s worth it, it’s only a few days. And I thought that’s nice to know, maybe I don’t want to give up at this stage if it’s worth just gritting your teeth for a couple of days, or even a week or something, and just getting over it. So that was nice to have that kind of reassurance...(Mila, October 2013)*

Similarly, Thomson et al. (2012) identified that support by other breastfeeding mothers fosters hope in breastfeeding mothers who are struggling with lactation issues and this reassurance resulted in a longer duration of breastfeeding.

Gibson and Hanson (2013) carried out a qualitative study to find how technology helps new mothers. Two key findings of the research were: “improving confidence as a mother”

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<sup>96</sup> For example, Formula Feeding Mums (AU & NZ) Facebook page had 1316 members (<https://www.facebook.com/groups/formulafeedingmummies/>), while 41, 889 people liked the page of Breastfeedingnz Facebook (<https://www.facebook.com/breastfeedingnz/?fref=ts>). Accessed date: 15/10/2016.



and “more than just a mother”. They identified that technology helps mothers to improve their confidence with seeking online information, social networking and using technology for supporting their parenting tasks. Technology helps new mothers to connect with the world while protecting their identity as a “good mother” (Gibson & Hanson, 2013). For instance, Addison (a PhD candidate) talked about reading Breastfeedingnz Facebook members’ comments in order to increase her health literacy related to breastfeeding.

*Actually, I’m part of Breastfeeding New Zealand. They’ve got a Facebook page and so I see their feeds come up all the time which I suppose – I mean I haven’t posted anything yet ‘cos I haven’t really had any issues but I suppose reading issues that other women have and then some of the comments have just been useful in terms of increasing my knowledge about breastfeeding and what issues could arise. (Addison, February 2014)*

Addison reported that she did not have any lactation issues and did not need to actively seek the other mothers’ advice. Instead, she preferred to read other breastfeeding mothers’ comments as this enhanced her self-confidence. Similarly, both Kate and Julia (who completed undergraduate degrees), spoke about their Facebook Breastfeedingnz group:

*Yeah- Actually on Facebook, I have a lot of breastfeeding feeds so they’re all like lots of advice in there so I was reading a lot from there as well. Yeah, it was actually surprising [that there was lots of advice about breastfeeding]. (Kate, January 2014)*

*I like Facebook Breastfeeding New Zealand, and I sometimes look at their questions and things, and I sometimes give people advice on there as well, but there’s nothing that I needed any advice about at the moment. But I usually look at their page and their questions and things, yeah. (Julia, February 2014)*

Kate and Julia talked about reading other mothers’ experiences related to breastfeeding in order to increase their health knowledge. Julia also said that sometimes she gave advice to

other mothers and supported them to breastfeed. Furthermore, most new mothers who have infants with special needs or sick babies usually trust online information as well as support groups that were related to their babies' medical needs (Ammari, Schoenebeck, & Morris, 2014). Jocelyn, a participant in this research, had an infant with a cleft lip, she spoke about her baby's special needs related to breastfeeding. Jocelyn was the member of both the BreastfeedingNZ Facebook group and the cleft lip Facebook support group:

*Yes, I'm on the Facebook page "breastfeeding New Zealand", so I've read that daily. Oh, and one more, also my son, he was born with a cleft lip, so I'm a part of a cleft lip support group on Facebook as well. And a lot of people discuss the breastfeeding issues which are relevant to cleft lip babies. (Jocelyn, March 2014)*

A recent study on postpartum health information-seeking behaviour (Guerra-Reyes et al., 2016) found that maternal educational levels influenced the preferred online source of information. For example, mothers who had a college education tended to access more academic websites, while mothers with a lower level of education preferred social networking using peer support communities. In contrast, although most participants in this doctoral research are highly educated, they used Facebook peer support communities as the preferred Internet source of social support and reassurance following the birth of their child.

Overall, most participants in the current research acknowledged breastfeeding support from virtual communities, especially parenting support groups on Facebook. In addition, "Breastfeedingnz" was the most frequently mentioned Facebook group by the mothers who participated in this research. In the previous chapter participants complained that there was too much pressure on mothers to breastfeed their babies from within the New Zealand health system, however, they appreciated the support provided by Breastfeedingnz Facebook page which is supported by the Ministry of Health.

#### **Theme 4. Geographically distant infant feeding support by Skype**

New Zealand is a bicultural country due to the signing of the Treaty of Waitangi between Maori and non-Maori, but it also a multicultural nation due to immigration from around the world mostly from Asia (New Zealand in Profile, 2015). For example, in 2013, the estimated percentage of each of the ethnic groups in New Zealand included European or other (74.6%), Maori (15.6%), Asian (12.2%), Pacific Islanders (7.8%), Middle Eastern, Latin American and African (1.2%), (New Zealand in Profile, 2015).

It is important to note that migrants adopt new technologies and social media more often than the citizens of host countries because of the need to adjust their socioeconomic status (Ros, 2010). One of the key benefits of technological devices is the elimination of barriers to communication which is created by both distance and time. This advantage of social media particularly changes the method of contact between migrants and their families who are separated geographically (Bacigalupe & Cámara, 2012). According to Madianou (2016), an “ambient co-presence” is created by using social media to regularly have contact with family members who are not close physically via the Skype or other free call apps. Technologically mediated co-presence or ambient co-presence (Madianou, 2016) refers to migrant families using technology to be aware of the everyday lives of significant others. Therefore, transnational families are dependent on social media for the maintenance of social contact, to sustain their position as a part of family and protect their identity as a partner, mother, grandmother or significant other to geographically distant family members (Madianou, 2016; Nedelcu, 2012).

In the current research, a participant from Pakistan, Mary, spoke about receiving breastfeeding encouragement and emotional support via Skype from all of her female family members and friends who are physically distant:

*All of my family members and friends told me breastfeeding is very good for the baby and for the mother as well. My mother and my sisters and my mother-in-law all of them advise me by Skype (because all of them live in Pakistan). (Mary, December 2013)*

Mary's statement about using Skype with her family to stay in touch is in accordance with a recent Israeli study in the area of immigration psychology (Khvorostianov, 2016). Khvorostianov (2016) has identified that free video calling via Skype is the most practical social media format that migrants use in order to constantly stay in touch and strengthen familial relationships which are weakened by immigration (Khvorostianov, 2016). In the modern world, the Internet is used as a source of information, social support and advice, it also provides a new environment for both communication and utilisation of the health information which can be considered both global and local (Hardey, 2001). The term "Glocalization" (Featherstone, Lash, & Robertson, 1995) refers to the ability to use the Internet to seek health information, and provide advice and social support that is not limited to the geographical boundaries.

Jocelyn, a research participant who breastfed exclusively for more than four months, talked about pressure from her in-laws who live in France to bottle feed and use infant formula which annoyed her.

*From my mother in law [she is in France] and culturally there are few differences and like for example she asked me when I would be weaning onto formula and I was like... I am not weaning onto formula and she was like oh why not? And I was like because... I am not going to....breast milk is all my baby needs, she presumed that*

*I would at some point in the next few weeks weaning onto formula and I said just not happening. Well, my mother-in-law and my sister-in-law keep asking me if she's on formula – drinking from a bottle yet, and I get very annoyed when I get asked that question because I don't want to use formula and I don't want to go to a bottle. But for them because they're from overseas that's normal where they come from for babies to only be breastfed for a few months and when they start to get older they just automatically put them onto formula and bottles. So they keep saying oh is she on formula yet – is she on a bottle yet? And my husband's like no she's not, and I'm like no she's not, so that makes me annoyed. (Jocelyn, March 2014)*

In the above comment, Jocelyn spoke about the negative aspect of using social media to stay in touch with geographically distant family members. Jocelyn complained about her in-laws who tried to impose their cultural beliefs related to infant feeding on her using social media. Jocelyn statement is in accordance with the research that shows the affordances of social media enabled significant others who are not proximate geographically to have a peripheral awareness of their loved ones' everyday activities. This awareness sometimes has strong emotional results both positively and negatively (Baldassar, 2008; Madianou, 2016).

Today the development of communication technologies offers opportunities to circulate information, provide social support and to interact with others. Through using social media new mothers can retain their social interactions with their family and friends who are physically distant (Madge & O'Connor, 2006). For example, Maya who breastfed her baby exclusively for six months talked about her mother who lives in Spain and how she tried to provide emotional support for Maya and encouraged her to breastfeed her children while she was geographically distant:

*My mother lives in Spain, my mom supports me over the phone, she told me that when she did it for us it was quite different because they didn't feed on demand, they could feed on schedule, so she said I don't really know the way you are doing it but she was always encouraging me for my both children, she had positive [breastfeeding] experience with her three kids. (Maya, October 2013)*

Maya said her mother has a positive attitude towards breastfeeding as well as she had a successful experience of breastfeeding her children including Maya. Although Maya's mother tried to support her to breastfeed, she lacked up to date information related to exclusive breastfeeding practice. Similarly, another research participant, Aria who was from Iran, acknowledged the crucial support provided by her family, especially from her mother and mother-in-law, who were living in Iran and therefore were geographically distant.

*I'm from Iran, so I don't have any close friends here [in New Zealand], but I have some friends who encourage me to breastfeed. But the support from my mother and my mother-in-law are very important for me. Even my mother-in-law advised my husband to support me more and look after me because I need more support for breastfeeding. For my first baby my mother was with me here and helped me a lot by doing housework and gave me lots of support. But for this baby my mother supports me a lot by Skype especially supports me to breastfeed a lot. For example, she tells me you should be breastfeeding on schedule not whenever your baby demands! I have lots of encouragement from my mother-in-law as well. She always tells me your milk is enough and as long as your baby is getting enough why do you need to supplement with formula? I think I prefer to have my mother here and she can give me her experience and support. I mean I don't need her for doing housework or looking after my toddler, but I like the feelings of closeness, the presence of her is very important for me. But she tries hard to transfer her breastfeeding experience via telephone or skype which is really nice. (Aria, February 2013)*

While Aria appreciated the breastfeeding support from her mother by Skype, she said that mediated communication is not equal to face-to-face support. Aria wanted her mother to be physically proximate as well. Aria said that her mother-in-law discouraged supplementation with formula and supported her exclusive breastfeeding practice. However, Aria's own mother advised her not to breastfeed on demand and to set a schedule for breastfeeding, which is not in accordance with current health professional advice. Naomi also spoke about a conversation with her mother by Skype who was living in China and suggested formula as

an alternative. Naomi started formula for her baby from the first day after birth and one week later gave up formula completely and initiated and continued fully breastfeeding.

*Normally I talk to my mother about I don't have enough milk and what should I do, then she said if you really don't have maybe just top up with formula. She breastfed me and my brother, she knows that breast milk is good and it's the best for baby especially for the first six months it's beneficial for the baby. (Naomi, November 2013)*

In the current study, both Aria and Naomi spoke about how their own mothers tried to transfer their breastfeeding experiences via Skype, however this information was often not up to date and was not based on the current WHO recommendation about exclusive breastfeeding until six months. It is important to note that while the informational support provided by geographically distant relatives through Skype was sometimes inaccurate, the health benefits of accessing emotional support through social media for postpartum mothers' physical and mental wellbeing is greater than the disadvantages of using technology for breastfeeding support. Research also has shown that new mothers struggle with isolation (Gibson & Hanson, 2013; Leigh & Milgrom, 2008), while social support and social connectedness for new mothers are associated with better maternal mental health outcomes (Gibson & Hanson, 2013; Meadows, 2010), stress reduction and improved maternal confidence (Barclay et al., 1997). The factors that create this isolation, apart from the stress of parenting and transition to the new role, include changes in lifestyle and the recovery period after birth. These factors primarily create physical isolation particularly during the first few weeks and may be a key reason for being socially isolated (Gibson & Hanson, 2013; Leigh & Milgrom, 2008). Postpartum tiredness influences a new mothers' physical wellbeing; this tiredness is usually related to recovery from the birth especially after a caesarian

section, lack of sleep and most importantly response to the demands of a vulnerable newborn. Mental tiredness is also influential on maternal health, because new mothers struggle with uncertainty and seek information constantly (Barclay, Everitt, Rogan, Schmied, & Wyllie, 1997; Gibson & Hanson, 2013). Furthermore, as a result of mental and physical tiredness new mothers may experience extensive stress and anxiety and in the worst case scenario, postpartum depression (Gibson & Hanson, 2013; Leigh & Milgrom, 2008). Other factors that may lead to social isolation for new mothers include migration to other countries and separation from significant others who could provide effective social support during the difficult time of transition to the new role as a mother (Gibson & Hanson, 2013).

Overall, in the current research most participants who had geographically distant relatives spoke about emotional support or “caring about” via Skype. Based on the theories related to landscapes of cares (Milligan & Wiles, 2010), the traditional definition of proximity as physical closeness can equally refer to emotional closeness using digital technologies. The findings of the current research identified it is possible that significant others who are geographically distant still can provide effective breastfeeding support which is emotionally proximate.

## **Conclusion**

Most women who participated in this research appreciated the breastfeeding support that was available through social media, stating that support groups on Facebook were particularly useful. The “Breastfeedingnz” Facebook page was mentioned frequently as a virtual community that provides effective breastfeeding support from volunteer peers and health professionals. Although the on-line breastfeeding mothers are not actual friends in the



real world and social ties between them are weak, they are able to provide effective social support to each other. Consequently, the theory of “strength of weak ties” proposed by Granovetter (1973) was applied in this current chapter to interpret these participants’ narratives and to explore the relationships between virtual friends on Facebook.

In addition, there were several research participants who immigrated to New Zealand or had relatives in other countries. These geographically distant family members tried to provide emotional and skill support for their loved ones through Skype. Although these significant others were physically distant and some did not provide up to date breastfeeding knowledge for the new mothers, they were successful in providing emotionally proximate support. Therefore, theories related to “landscapes of care” (Milligan & Wiles, 2010) were used as a framework to explore the quality of support provided through Skype.

The findings of this chapter identified how exclusive breastfeeding behaviour is socially constructed by virtual social networks around the mother as well as the other relational influences such as historical, geographic, socioeconomic and the real world social contexts of the mother’s life.

## ***Chapter 10: Conclusion***

### **Introduction**

This concluding chapter offers a summary of the thesis as well as the research limitations, recommendations for further study and implication for practice. This chapter also considers why six months exclusive breastfeeding should be seen beyond the mother-infant dyad and as a relational behaviour which is socially constructed and shaped by the social relationships, interactions and networks around the mother.

### **Summary of the thesis**

In New Zealand, obesity, breast cancer and Sudden Unexpected Death in Infancy (SUDI) are major public health challenges (Ministry of Health, 2015; Ross, 2011; SIDS and Kids New Zealand, 2014). Exclusive breastfeeding for six months has been identified as one of the preventive factors for sudden unexpected death during the first year of life. The risk of obesity is also reduced in breastfed children during their childhood and also in their adult lives (Ip et al., 2007; Ross, 2011; SIDS and Kids New Zealand, 2014; Wallby, Lagerberg, & Magnusson, 2017). Furthermore, exclusive breastfeeding has a protective effect against the occurrence of breast cancer, and it can be more effective if mothers breastfeed their children for a longer duration (Chowdhury et al., 2015). Consequently, through promoting six months exclusive breastfeeding the New Zealand health system may reduce the rates of obesity, breast cancer and SUDI to a certain extent.

Despite widespread consensus regarding the benefits of prolonged breastfeeding, the prevalence of six months exclusive breastfeeding is very low in developed countries including New Zealand (WHO, 2016a). While breastfeeding advocates and health professionals are actively involved in promoting and supporting six months exclusive breastfeeding in these countries, many well-known factors impact upon intention, initiation and duration of breastfeeding including socioeconomic factors, social support from family and health professionals as well as employment status, cultural beliefs and maternal education levels (Meedya et al. 2010). A review of both the national and international literature identified many studies that focus upon factors influencing the initiation and prolongation of breastfeeding (Bourgoin et al., 1997; Butler, Williams, Tukuitonga, & Paterson, 2004; Cernadas, Noceda, Barrera, Martinez, & Garsd, 2003; Dodgson, Duckett, Garwick, & Graham, 2002; Dozier et al., 2013; Henderson & Redshaw, 2011; Kristiansen, Lande, Øverby, & Andersen, 2010; Ladomenou, Kafatos, & Galanakis, 2007; Meedya, Fahy, & Kable, 2010; Tan, 2011). However, the impact of antenatal intention to breastfeed exclusively for six months and the influence of social support provided by health professionals, family and social media on actual duration of exclusive breastfeeding to six months have not been fully evaluated. The limited number of studies carried out on the influence of sociocultural factors on six months exclusive breastfeeding behaviour in New Zealand, suggest that qualitative research about sociocultural factors that influence exclusive breastfeeding duration, including why the rate of exclusive breastfeeding tails off between three and six months would make a significant contribution to the literature. This qualitative research was carried out to identify factors that positively and negatively impact on exclusive breastfeeding rates in one area of New Zealand.

The reasons for choosing social constructionism as an epistemological framework underpinning this research, the use of the generic qualitative methodology and thematic analysis as the method of data analysis of the qualitative interview material were highlighted in the methodology and research design chapter. In addition, all details about the methods of recruiting participants, collecting data, inclusion and exclusion criteria and the ethical consideration as well as the process of obtaining ethical approval were discussed in chapter three of this thesis.

According to demographic data extracted from the antenatal questionnaires, a relatively homogeneous sample of 30 women participated voluntarily in this qualitative research. The majority of participants were mature and older than 25 years, were highly educated, married or living with a male partner, were stay-at-home mothers or employees on a maternity leave for more than six months and had a midwife as their lead maternity caregiver. Most of them birthed at home or in a baby friendly hospital, were breastfed as a child and received social support from their significant others as well as through social media. Furthermore, most participants in this research were born in New Zealand, and were of European descent. Three women identified as Maori and four women were from England, China, Pakistan and Iran. Most participants had breastfeeding experience, a planned or wanted pregnancy and 29 out of 30 of the participants had an antenatal intention to breastfeed exclusively for six months. As the participants were well-educated and committed to six months exclusive breastfeeding, their narratives are a significant addition to the literature on promoting exclusive breastfeeding duration in New Zealand, particularly between the three and six months period.

In the first substantive chapter of this thesis, chapter four, an antenatal intention to breastfeed exclusively for six months was identified as the most significant predictor of the initiation and duration of breastfeeding. However, it was also found that antenatal intention to breastfeed does not ensure the practice of exclusive breastfeeding until six months. In order to understand the effect of antenatal intention on six months exclusive breastfeeding behaviour, the theory of planned behaviour was applied to illuminate the themes presented in the findings. This theory was extended to include self-identity as a factor that influences the intention and practice of six months exclusive breastfeeding. The influence of behavioural, normative, control and identity beliefs on six months exclusive breastfeeding practice points to the relational nature of decision-making around six months exclusive breastfeeding during pregnancy. A key finding of chapter four was that six months exclusive breastfeeding practice is not limited to maternal antenatal intention, but that antenatal intention to breastfeed exclusively for six months is socially constructed through the relationships, interactions and networks in which the mother is embedded.

In Chapter Five, the second substantive chapter, the reasons for stopping exclusive breastfeeding between three and six months in New Zealand were explored. Little literature nationally and internationally exists about this important timeframe when the maintenance of exclusive breastfeeding may be challenging for mothers. Therefore, a decision was made to describe the key themes from the interviews. The findings of chapter five identified that mothers in New Zealand tend to introduce solids earlier than six months for many reasons such as: six months exclusive breastfeeding is regarded by mothers as a new guideline and therefore less valid; introduction of solids as a cultural practice in Pacific families; short-term paid maternity leave legislation impacts upon breastfeeding; mothers struggle with balancing

breastfeeding and their social activities; psychological factors in the family; and babies in the Pacific region are bigger and hungrier than babies residing in the parts of the world in which the breastfeeding guidelines were developed. The key findings of chapter five highlight that despite all the social supports that these research participants had received both formally and informally and all the indicators that they had for successful six months exclusive breastfeeding practice, half of them introduced solids earlier than six months. Therefore, the maintenance of six months exclusive breastfeeding behaviour is challenging and demanding even for these mothers who were socially advantaged, well-educated and highly motivated to breastfeed their babies exclusively for six months.

Chapter six and chapter seven of this thesis focus on breastfeeding support from nuclear and extended family members. Following thematic analysis of the qualitative data and the identification of the related themes the theory of stress, coping strategies and social support proposed by Thoits (1995), was applied to illuminate the findings of these two chapters related to the importance of social support from family members. These two chapters explored the importance of social support for improving the physical and mental health of mothers during the postpartum period. Social support may be provided by significant others, similar others and similar significant others with the latter providing the most effective form of lay support. Although the research participants were mature, well-educated and highly motivated breastfeeding mothers, they stated that they still need support and encouragement from their family. Therefore, the findings of these two chapters identified that encouragement from significant others was essential for maintaining exclusive breastfeeding for six months. Furthermore, the influence of family culture, as well as the quality of breastfeeding support from grandmothers and other female family members was explored in chapter six. Most

research participants appreciated the presence of a breastfeeding culture in their family alongside emotional and skill support from their significant others. They acknowledged their mother's breastfeeding experience and some of them spoke about their childhood memories related to their mothers' breastfeeding practice. Participants also mentioned that their mothers were positive role models for their infant feeding practice. The findings of chapter six identified that the breastfeeding culture in a family is important for turning intention into the action of six months exclusive breastfeeding. However, there are differences within cultural groups as world views are constructed by life experiences, socioeconomic status and religion, as well as historical, political and geographical location. Therefore, the key finding of chapter six points to the relational behaviour of six months exclusive breastfeeding and the fact that the six months exclusive breastfeeding behaviour is socially constructed and shaped by opinions, attitudes and the culture of the social networks around the mother. In addition to social networks around the mother, six months exclusive breastfeeding behaviour also is influenced by the historical, socioeconomic, political, geographic and social contexts of the mother and her family members' lives.

Chapter seven of this thesis continues with themes related to the theory of stress, coping strategies and social support proposed by Thoits (1995). In chapter seven the importance of support from male family members including a male partner, grandfathers and uncles for exclusive breastfeeding initiation and duration was explored. The transition to fatherhood, the importance of breastfeeding education for fathers and cultural views that discourage men to support breastfeeding were discussed in this chapter. Finally, it was identified that some men in New Zealand have a favourable attitude towards breastfeeding and support women to breastfeed their children not only in their family environment but also in public. In addition,

most participants in this research identified that their male partners do not have enough knowledge about breastfeeding, but they are eager to learn in order to support their breastfeeding partners or other family members. The importance of support from male partners and other male family members point to the relational nature of six months exclusive breastfeeding behaviour. Therefore, six months exclusive breastfeeding is a relational behaviour that socially constructed through the social interactions, relationships and networks around the mother including male and female family members. Breastfeeding support from men, identified by the women who participated in this research, indicates that male support for breastfeeding in the family environment or in public places is also socially constructed and shaped through social interactions and the social networks around these men which are in turn influenced by the historical, socioeconomic, political and geographic contexts of the men's lives.

The importance of health professional support for maintaining successful exclusive breastfeeding practice was discussed in chapter eight of this thesis. Most mothers who participated in this doctoral research talked about the pressure to breastfeed within the New Zealand health system. Consequently, resistance to breastfeeding as a result of feeling pressured, guilt and judgements around formula feeding as well as surveillance or monitoring of parents by health professionals who are employed by the government were identified. Therefore, after thematic analysis of the data and identification of emerging themes, the theories of governmentality and bio-power (Foucault, 1972) were applied as a framework for interpreting the findings of resistance to breastfeeding. While the services of self-employed registered midwives are funded by the New Zealand government and are therefore part of the administrative power of the state, mothers in this research appreciated the effective support



from the LMC midwives who strengthened the new mothers' self-efficacy, respect and autonomy in relation to both infant care and breastfeeding.

In chapter eight the relational nature of breastfeeding was indicated by the influence of physical, social and psychological factors on the behaviour of breastfeeding mothers. Since health professionals are also included in the breastfeeding mothers' social networks, their attitudes and opinions influence breastfeeding practice. Chapter eight points to the fact that the behaviours of health professionals are also socially constructed and formed by the social networks, environments and institutions in which these health professionals are embedded. For instance, differences in the practices of LMC midwives, staff midwives in the hospital and well child providers including Plunket nurses were identified by participants. The findings of chapter eight point to the relational behaviour of health professionals who support exclusive breastfeeding in the sense that their practice is socially constructed and influenced by the social networks around them. Therefore, the behaviours of breastfeeding mothers, family, health professionals and the community are socially constructed and affected by social networks and social relationships as well as the historical, socioeconomic, political, geographic and social contexts of the lay and professional breastfeeding advocates lives.

The final substantive chapter of this thesis explored the quality of the breastfeeding support that participants accessed from the Internet. Sources of support mentioned by participants included health-focused websites, online forums, smartphone apps and social network platforms. In chapter eight most participants spoke about feeling pressured to breastfeed within the New Zealand health system. In chapter nine, when I asked participants to explain about the quality of breastfeeding support through social media and online

communities, most women answered they had received substantial health information and social support through the Internet particularly health-focused websites in which the content was written mainly by health professionals. As an example, the majority of breastfeeding mothers in this research identified the “Breastfeedingnz Facebook page” as a good source of information, skill and emotional support. The “Breastfeedingnz Facebook page” is a virtual community that is supported by the New Zealand Ministry of Health, volunteer peers and health professionals including midwives and lactation consultants. Another finding was that most participants in this research were from “Generation Y”, a group who use the Internet frequently for seeking online information. These “Generation Y” mothers appreciated the breastfeeding support that was available through social media as well as the support groups on Facebook. Although the breastfeeding mothers who accessed online forums were not in physical proximity to each other, like community organisations in the “real” world, they were able to provide effective social support for each other by creating a sense of community. The “strength of weak ties” theory proposed by Granovetter (1973) was applied to interpret these participants’ narratives and to explore the relationships between virtual friends on Facebook. Applying the strength of weak ties to Facebook members in virtual support groups identified that weak ties act as bridges that diffuse information related to breastfeeding and provide an effective kind of social support. Another important finding related to support through social media concerned participants who immigrated to New Zealand or had family members who were geographically distant. These participants spoke about receiving emotional support from their significant others via Skype. Therefore, theories related to “landscapes of care” (Milligan & Wiles, 2010) were applied to explore the quality of support through Skype. It was identified that in this digital age the traditional definition of proximity as physical

closeness could equally refer to emotional closeness and it is possible that someone who is geographically distant still can provide support which is emotionally very close and effective. The influence of social media on six months exclusive breastfeeding points to the relational nature of breastfeeding that is not only influenced by ‘real world’ social networks around the mother but by virtual social networks as well.

The term “embeddedness” (Granovetter, 1985) refers to the way in which both human behaviour and institutions are not independent but shape and are shaped by dynamic social relationships. Granovetter’s (1985) ideas about embeddedness, suggest that a pregnant woman or a mother does not make autonomous decisions about her infant feeding behaviour, but that these mothers are entrenched in social relationships that influence their decisions (Noseworthy, Phibbs, & Benn, 2013). Granovetter (1985) has identified the importance of social networks and pointed out that social relationships impact on human behaviours (e.g. breastfeeding, mixed feeding and formula feeding behaviour) and the institutions (e.g. health organisations, hospitals, midwifery council, well child providers such as Plunket) in which they are embedded. However, it should be noted that a mothers’ behavioural beliefs and their attitudes towards breastfeeding are also important for achieving six months of exclusive breastfeeding. This antenatal intention to exclusively breastfeed for six months is also constructed by the response of the mother to her social relationships such as the influence of her family and friends, the attitude of her midwife or other health care providers (Noseworthy, Phibbs, & Benn, 2013), as well as her online social networks. Consequently, a breastfeeding mother is an “embedded” individual in which her intention to breastfeed exclusively for six months, and her behaviour is socially constructed by the influences of, or expectations within, her social networks. Granovetter (1985) has pointed out, that it is an

over-socialized idea if we accept all of an individual's behaviours are created and formed by the social relationships they are embedded in. While social networks and culture shape an individual's behaviours it should also be noted that individual behaviours influence culture in an ongoing dynamic process, thus effecting cultural change, for example the change from a predominantly formula feeding culture to a breastfeeding culture.

Smith and Christakis (2008), in a study on the influence of dyadic and super-dyadic networks on the promotion of health-related behaviours, found that the nature of health care is relational in that the individuals, health care providers, health policy makers and researchers may be members of the targeted population. Noseworthy, Phibbs and Benn (2013), proposed a relational model of decision-making in midwifery care and pointed out that both woman and midwife do not make decisions related to childbearing events without consideration of others (e.g. the actual and virtual social networks around them). The relational model of decision making in midwifery care developed by Noseworthy, et al (2013), looks beyond the consideration of individualism in decision making and recognises the importance of social, cultural and political factors influencing decision-making processes. Therefore, the decision-making processes in health care settings are not limited to the autonomy of health professionals or their clients, but it is influenced by social, political and cultural contexts in which they are embedded (Noseworthy et al, 2013).

Overall, considering the term “embeddedness” (Granovetter, 1985) and the relational model of decision-making in midwifery care (Noseworthy et al., 2013), a breastfeeding mother is an “embedded” individual in which her intentions and her behaviours around exclusive breastfeeding for six months are shaped by the influences of, or expectations within, her social networks. The following diagrammatic summary is developed to illustrate

how exclusive breastfeeding behaviour is socially constructed by actual and virtual social networks around the mother as well as the other relational influences such as the historic, geographic, socioeconomic and social contexts of the mother's life.



**Figure 10.1.** The relational influences on the behaviour of six months exclusive breastfeeding

## Strengths and limitations

This doctoral thesis contributes to the new knowledge around breastfeeding through highlighting the sociocultural factors that support or impede six months exclusive breastfeeding behaviour by looking beyond the mother-infant dyad. Identifying the crucial roles that male family members and social media play in supporting exclusive breastfeeding practice in this thesis is a new finding that has not previously been fully explored. Focusing

on the important timeframe between three and six months when the maintenance of exclusive breastfeeding is challenging for some mothers is also strength within this thesis.

An additional strength of this thesis is that, although the current research supports the World Health Organisation's six months exclusive breastfeeding guidelines for all mother and babies internationally including New Zealand, each mother's informed decision about the method of infant feeding is supported. Considering the time period in which this qualitative study was conducted (2013-2014), the thesis produced new findings that are consistent with a recent advisory supporting six months exclusive breastfeeding that was issued by The American Congress of Obstetricians and Gynaecologists in February 2016<sup>97</sup>, which recommends health professionals should respect a mother's autonomy around infant feeding.

In addition, using the generic qualitative methodology is another strength of this study which provides detailed information about participants' experiences of, as well as thoughts and attitudes towards, six months exclusive breastfeeding practice. The generic qualitative methodology allowed the researcher to apply multiple strategies to collect information related to breastfeeding which is a sensitive topic for some women. Finally, the methods of this research are clearly presented in a systematic and consistent manner using the "Consolidated Criteria for Reporting Qualitative studies (COREQ): 32 items' checklist"

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<sup>97</sup> American Congress of Obstetricians and Gynaecologists. Optimising support for breastfeeding as part of obstetric practice. <https://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Optimizing-Support-for-Breastfeeding-as-Part-of-Obstetric-Practice> Accessed date: 24/08/2017.

proposed by Tong, Sainsbury and Craig (2007) to validate the standard and strength of this qualitative research [see Appendix 15].

Another strength of this research is related to the selected method of data analysis and the presentation of themes related to the findings in each data chapter. Firstly, thematic analysis, using manual coding, was employed to interpret the massive amount of textual data. Secondly, following thematic analysis of the qualitative data and the identification of the related themes, different theories were used to illuminate themes at work in each of the findings chapters. All theories that were applied to an interpretation of the findings focus on relationships, interactions and social support which were all linked to social constructionism, the epistemological framework underpinning this research.

The maintenance of six months exclusive breastfeeding behaviour is challenging and demanding even for the participants in this research who were socially advantaged, well-educated and highly motivated to breastfeed their babies exclusively. Nevertheless, the vast majority of the literature around breastfeeding has linked barriers to prolonged duration of exclusive breastfeeding to difficulties within the mother-infant dyad, as well as negative maternal socioeconomic and sociodemographic characteristics. This thesis provides a corrective to that narrative and reminds health professionals that across all socio-economic groups women may find six months exclusive breastfeeding a challenging goal.

There are also some limitations to this research. Although all the women participated in this research voluntarily and were recruited through research advertisements placed in public places and on social media, most participants had planned to complete six months exclusive breastfeeding and were pro-breastfeeding. While having an antenatal intention to breastfeed

exclusively for six months was not among the list of inclusion criteria, it means that women who were not pro-breastfeeding or had planned to formula feed their babies did not participate in this research. For this reason, the findings may not reflect all mothers' experiences or opinions regarding exclusive breastfeeding. In addition, the small sample size, relatively homogeneous demographic characteristics as well as a research location that only covered the lower North Island of New Zealand meant that the findings of this research could not be generalised across the population of childbearing women in New Zealand.

### **Implications for practice**

This section discusses the potential implications of these research findings for the practice of health professionals who are also breastfeeding advocates such as midwives, lactation consultants and well child providers.

This research suggests that education on the health benefits of a prolonged duration of exclusive breastfeeding for both mother and baby should be provided not only to all expectant parents, but their families as well, both in person and through social media such as smartphone apps and virtual parenting communities. This research recommends that health professionals should support and encourage mothers to look after their children appropriately regardless of the type of infant feeding method used and that they respect the mothers' autonomy. In addition, it is recommended that health professional training related to breastfeeding support should focus on counselling skills which help women to find the best individualised strategies to solve their problems instead of just providing generic advice which might not address their specific needs.



Furthermore, in this research some participants complained about inadequate advice from antenatal educators and midwives concerning the embodied reality of breastfeeding and how they were unprepared for the lactation issues that occurred following the birth of their first child. Therefore, this research suggests that midwives should develop a breastfeeding plan alongside the birth plan during the pregnancy, particularly for first-time mothers. Although midwives should recommend six months exclusive breastfeeding, partnership and informed decision making should be the top priority during the infant feeding consultation with pregnant women and their families.

This research found that mothers who give up breastfeeding during the early postpartum period suggest that the best strategy for providing care and support for them is to listen to their reasons in a non-judgemental way and provide support to look after their babies appropriately. Insisting on breastfeeding or exclusive breastfeeding continuation for these mothers and recounting the benefits of breastfeeding was not regarded as helpful. Two of the three research participants who gave up exclusive breastfeeding stated that non-judgemental health professional support was a key factor that gave them the confidence to return to breastfeeding. These results suggest that health professional support for women who choose to use formula or mixed feeding while experiencing lactation and/or infant feeding issues may result in an eventual return to breastfeeding.

The best method for promoting six months exclusive breastfeeding in New Zealand would be the introduction of paid maternity leave for more than six months for all working mothers without any conditions because returning to work and maintaining exclusive breastfeeding is tough for mothers and their families. Some mothers in this research breastfed their babies with the support of their families when they returned to work. Although they claimed that

their workplace is a breastfeeding-friendly environment, it was largely left up to them and their significant others to balance breastfeeding and workplace demands. This focus upon individual responsibility is an example of how workplace policies that support breastfeeding may not necessarily translate into practices on the ground. Therefore, employment status is just a partial barrier for sustaining exclusive breastfeeding, and it depends on the amount of social support within the workplace as well as adequate family support to enable women to breastfeed during breaks in their work day. However, intention to maintain exclusive breastfeeding alongside other socio-demographic characteristics including financial circumstances or job status also impacts on the working mothers' decision to stop or continue breastfeeding (Radzniwan, Azimah, Zuhra, & Khairani, 2009; Sulaiman, Liamputtong, & Amir, 2016). The New Zealand Breastfeeding Alliance (NZBA, 2016) functions to promote, protect and support breastfeeding in New Zealand through the two initiatives of Baby Friendly Hospital Initiative (BFHI) and Baby Friendly Community Initiative (BFCI). This research recommends the development of a Baby Friendly Workplace Initiative (BFWI) in which education is provided to both employees and employers about the legislation, their obligations and responsibilities as well as the importance of breastfeeding for health, employee retention, reduced sick leave and for increasing the productivity of female employees who have returned to work following the birth of a child.

The findings of this research have shown that none of the research participants were referred to high-quality parenting websites, reliable online health information including the popular breastfeeding community on Facebook "Breastfeedingnz" that is supported by the New Zealand Ministry of Health. Therefore, it is recommended that midwives and other health professionals guide mothers to reliable social media and breastfeeding applications.

Since most young mothers in this digital age have a smartphone and are using smartphone apps for the provision of health education, providing learner-centred education and sending advice to the smartphone apps should be considered a method of breastfeeding promotion by breastfeeding advocates in New Zealand. In addition, this research suggests midwives or student midwives should be involved in social media as well. Providing professional support in an indirect manner on social network platforms may help midwives to improve their skills and become familiar with women's concerns and problems related to breastfeeding that they may not talk about in the 'real' world.

### **Recommendations for future research**

There is a new set of questions that have arisen from the current research that may be used for conducting future research in this area. For example, an unexpected finding of this qualitative research was information about breastfeeding support from male family members as well as in the community. However, not all men are supportive of breastfeeding, and male support may vary between cultures. As New Zealand is a bicultural and multicultural nation, this research suggests that cross-cultural qualitative research is needed that explores the opinions and experiences of men across all ethnic groups residing in New Zealand related to providing breastfeeding support in the family as well as in public.

In addition, having the opinions of health professionals including LMC midwives, hospital midwives, lactation consultants, well child providers and medical doctors related to six months exclusive breastfeeding support in New Zealand would be a valuable contribution to the New Zealand literature in this area. The final suggestion for further research relates to the limited demographic characteristics of the research participants and the geographic area of

this research. In order to thoroughly understand the reasons for the low rate of six months exclusive breastfeeding in this country further qualitative research is needed that involves women from all socioeconomic groups across New Zealand.

## **Thesis Conclusion**

This doctoral research explored some of the sociocultural factors influencing six months exclusive breastfeeding behaviour. The findings of this qualitative research about the importance of breastfeeding advocacy through social media such as Facebook and smartphone apps makes a significant contribution to the New Zealand and international literature. In conclusion, this doctoral thesis states that six months exclusive breastfeeding practice is not limited to the intentions or actions of the mother-infant dyad; it is socially constructed by actual and virtual social networks around the mother as well as the other relational influences such as historical, geographic, socioeconomic and social contexts of the mother's life.

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## Appendices

### Appendix 1: First Human Ethics Approval Letter



**MASSEY UNIVERSITY**  
TE KUNENGA KI PŪREHUROA

7 August 2013

Narges Alianmoghaddam  
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**PALMERSTON NORTH 4410**

Dear Narges

**Re: HEC: Southern A Application – 13/30**  
**Breastfeeding initiation and exclusive duration: The influence of pregnancy intention status, health professional, family and informal social support**

Thank you for your letter dated 26 July 2013.

On behalf of the Massey University Human Ethics Committee: Southern A I am pleased to advise you that the ethics of your application are now approved. Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Dr Brian Finch, Chair  
**Massey University Human Ethics Committee: Southern A**

cc Dr Suzanne Phibbs  
School of Health & Social Services  
**PN371**

Prof Steve LaGrow, HoS  
School of Health & Social Services  
**PN371**

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Massey University Human Ethics Committee  
Accredited by the Health Research Council  
Research Ethics Office

Massey University, Private Bag 11222, Palmerston North 4442, New Zealand T +64 6 350 5573 +64 6 350 5575 F +64 6 350 5622



## Appendix 2: Second Human Ethics Approval Letter



**MASSEY UNIVERSITY**  
TE KUNENGA KI PŪREHUROA

14 March 2014

Narges Alianmoghaddam  
40 Union Street  
**PALMERSTON NORTH 4410**

Dear Narges

**Re: HEC: Southern A Application – 13/30**  
**Breastfeeding initiation and exclusive duration: The influence of pregnancy intention status, health professional, family and informal social support**

Thank you for your letter dated 24 February 2014 outlining the change you wish to make to the above application.

The change, to hold an additional face-to-face interview for research participants who stopped exclusively or partially breastfeeding their babies before 6 months of age has been approved and noted.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee. If over time, more than one request to change the application is received, the Chair may request a new application.

Yours sincerely

Dr Brian Finch, Chair  
**Massey University Human Ethics Committee: Southern A**

cc Dr Suzanne Phibbs  
School of Health & Social Services  
**PN371**

Dr Kieran O'Donoghue, Acting HoS  
School of Health & Social Services  
**PN371**

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Massey University Human Ethics Committee  
Accredited by the Health Research Council  
Research Ethics Office

Massey University, Private Bag 11222, Palmerston North 4442, New Zealand T +64 6 350 5573 +64 6 350 5575 F +64 6 350 5622  
E [humanethics@massey.ac.nz](mailto:humanethics@massey.ac.nz) [animalethics@massey.ac.nz](mailto:animalethics@massey.ac.nz) [gtc@massey.ac.nz](mailto:gtc@massey.ac.nz) [www.massey.ac.nz](http://www.massey.ac.nz)

## Appendix 3: Honorary Staff Approval Letter



**MIDCENTRAL HEALTH**

A division of MidCentral District Health Board providing specialist health and disability services

19 September 2013

Phone (06) 356 9169  
Fax (06) 350 8818

Postal Address:  
Private Bag 11036  
Manawatu Mail Centre  
Palmerston North 4442  
New Zealand

Physical Address:  
Ruahine Street  
Palmerston North  
New Zealand

Narghes Alianmoghaddam  
Email: [n.alianmoghaddam@massey.ac.nz](mailto:n.alianmoghaddam@massey.ac.nz)

Dear Narghes

### HONORARY STAFF STATUS

I am pleased to confirm that approval has been granted for you to hold Honorary Staff Status with MidCentral District Health Board (MDHB) for the period **3 September 2013 – 3 December 2013**.

All MDHB staff (including those with honorary staff status) must comply with MDHB pre-employment screening requirements. Please contact the Infection Prevention and Control Department on (06) 350 8310 regarding your screening requirements.

The Health and Safety in Employment Act requires that you be advised of emergency procedures, location of safety equipment and materials, identified hazards to which you may be exposed, identified hazards which you may create and how these hazards can be minimised. Your sponsor will advise you of the hazards in your area. MidCentral District Health Board is constantly undertaking hazard identification and risk assessment. You may be included in this process during your time here.

I have attached a copy of MidCentral District Health Board's "Code of Conduct Policy & Standards of Integrity and Conduct and Disciplinary Procedures Policy" which all staff, including those with honorary staff status, are required to abide by.

MidCentral District Health Board's Vision is "Quality Living - Healthy Lives". As an Honorary Staff Member of MDHB you will be encouraged to take every opportunity to assist our organisation to achieve this vision.

If you require any further information or advice please contact Billie Bradford on (06) 350 7101 or email [Billie.Bradford@midcentraldhb.govt.nz](mailto:Billie.Bradford@midcentraldhb.govt.nz).

Yours sincerely

**Robyn Williamson**  
**Service Manager**  
**REGIONAL WOMEN'S HEALTH SERVICE &**  
**CHILD HEALTH SERVICES MDHB**

cc: Billie Bradford, Midwifery Educator, Women's Health Unit  
Human Resources

## **Appendix 4: Calling On Pregnant Women**

### **Volunteers Wanted for a Research Study**

#### **Breastfeeding Initiation and Exclusive Duration: the Influence of Antenatal Intention, Health Professional and Informal Social Support**

**What factors encourage or discourage exclusive breastfeeding?  
Why do exclusive breastfeeding rates tail off so dramatically between 3-6 months in  
New Zealand?**

**I am a PhD student in Midwifery and need your help to answer these questions**

**I am looking for participants who are more than 30 weeks pregnant to participate  
in this study**

**If you are interesting in helping or would like more information about this research**

**Please email Narges Alianmoghaddam, PhD student at Massey University**

**n.alianmoghaddam@massey.ac.nz**

**Or Telephone: 0800MASSEY ext.7325**

*“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email humanethicsoutha@massey.ac.nz*

## **Appendix 5: Calling On LMC Midwives**

### **Volunteers Wanted for a Research Study**

#### **Breastfeeding Initiation and Exclusive Duration: the Influence of Antenatal Intention, Health Professional and Informal Social Support**

**What factors encourage or discourage exclusive breastfeeding?  
Why do exclusive breastfeeding rates tail off so dramatically between 3-6 months in  
New Zealand?**

**I am a PhD student in Midwifery and need your help to answer these questions**

**I am looking for participants who are more than 30 weeks pregnant to participate  
in this study**

**If you are interesting in helping or would like more information about this research**

**Please email Narges Alianmoghaddam, PhD student at Massey University**

**n.alianmoghaddam@massey.ac.nz**

**Or Telephone: 0800MASSEY ext.7325**

*“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email humanethicsoutha@massey.ac.nz.*

## **Appendix 6: Information Sheet**

### **Who is doing this research?**

My name is Narges Alianmoghaddam, the researcher and a PhD student in midwifery within the School of Health and Social Services at Massey University in Palmerston North. My doctoral supervisors are Dr Suzanne Phibbs and Associate Professor Dr Cheryl Benn.

### **What is this research about?**

This research aims to interview 30 pregnant women who live in the lower North Island, New Zealand. I am interested in learning about how antenatal intention to breastfeed, health professional, family and informal social support influence breastfeeding initiation and exclusive duration in the first 6 months following birth. An additional aim of the study is to develop a greater understanding of why exclusive breastfeeding tails off so dramatically between 3 and 6 months in New Zealand. Your views and experiences have the potential contribute to an understanding of how antenatal intention to breastfeed, health professional, family and informal social support influence on breastfeeding initiation and exclusive duration.

### **How did this research come about?**

I am a researcher who has a special interest developing resources that support breastfeeding practices. I have obtained a scholarship from Massey University to conduct this study in New Zealand.

### **What would I do if I offer to participate?**

I would like to follow 30 pregnant women from 30 weeks gestation until approximately 6 months following birth. The research will involve a short survey at about 30 weeks gestation to note your views about your pregnancy and intention to breast feed. This will be followed by a face to face interview 4-6 weeks following the birth of your child in order to discuss your experiences around beginning to breast feed. The interview will last up to one hour. The researcher will record the interview so it can be transcribed for analysis. The interview will be followed by a short monthly audio-recorded telephone interview to catch up on how you are going with your breastfeeding. These telephone calls (no more than 5 in total) will continue until you stop breastfeeding exclusively or your baby is six months old. If you would like to share your breastfeeding experiences please contact the researcher and together we will make arrangements regarding participating in this research.

### **Issues of confidentiality**

Your real name will not be used when the interviewer writes down information that you shared in the interview. This will help to protect both your identity as well as maintaining confidentiality in relation to issues discussed. The researcher and her two Massey doctoral supervisors are the only ones who will have access to the transcript of the information that you have shared. This information will be

locked away securely. None of the identifying information that you provide, such as your real name, occupation or contact details, will be released to any agency or reproduced in any public documents.

### **Participant's Rights**

*You are under no obligation to accept this invitation. If you decide to participate, you have the right to:*

- *decline to answer any particular question;*
- *withdraw from the study at any time prior to signing consent to release your transcript summary;*
- *ask any questions about the study at any time during participation;*
- *provide information on the understanding that your name will not be used unless you give permission to the researcher;*
- *be given access to a summary of the project findings when it is concluded.*
- *ask for the recorder to be turned off at any time during the interview.*

### ***Inclusion criteria for participating in this research:***

- 1. Women who are more than 30 weeks pregnant*
- 2. Women who are eligible for vaginal birth*
- 3. No alcohol or drug abuse.*
- 4. Fluent in English*

### ***Exclusion criteria:***

- 1. Mothers for whom breastfeeding is contraindicated for medical reasons.*
- 2. Mental health diagnosis*
- 3. The maternal use of certain drugs or treatments, including illicit drugs, antimetabolites, chemotherapeutic agents, and radioactive isotope therapies.*
- 4. Multiple pregnancies (twins/triplets pregnancies)*

*You may be withdrawn from the study if your baby is subsequently diagnosed with intolerance to breast milk.*

### **You will need to**

- Agree to fill out a short questionnaire prior to the birth of your child;
- Agree to be interviewed following the birth of your child;
- Agree to receive monthly catch up telephone calls until you stop breastfeeding exclusively or your baby is 6 months of age;
  - If you have given consent for your contact details to be passed on to the research team the researcher Narges Alianmoghaddam will contact you to arrange an interview.

○ If you have not already been contacted regarding this research, but have heard about it and would like to participate, you may contact the researcher directly by phoning Narges Alianmoghaddam at 0800MASSEY ext.7325 or email: n.alianmoghaddam@massey.ac.nz Or Suzanne Phibbs at 0800MASSEY ext. 2319 or email s.r.phibbs@massey.ac.nz ;

- Sign a consent form prior to the interview;
- Review a summary of your interview transcript and sign a release form agreeing to the information being included in publications arising from the research.

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## Appendix 7: Participant Consent Form - Individual

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being sound recorded.

I agree/do not agree to the telephone interview being sound recorded.

I wish/do not wish to have my recordings returned to me.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature:

Date:

Full Name - printed

*“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email [humanethicsoutha@massey.ac.nz](mailto:humanethicsoutha@massey.ac.nz).”*



## Appendix 8: Antenatal Questionnaire

**I just need you to answer some questions about yourself: What is your....**

Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Expected Date of Delivery: \_\_\_\_\_

Mobile number: \_\_\_\_\_ Home telephone number: \_\_\_\_\_

Home address: \_\_\_\_\_

1. What is the highest level of education you completed? (Circle one)

- Some high school, but did not finish
- Completed high school
- Some tertiary study, but did not finish
- Certificate or Diploma at a Tertiary Institute
- Undergraduate degree at a University or Polytechnic
- Completed a Post Graduate Degree

2. How would you describe your current employment status? (Circle one)

- On Maternity Leave
- Employed full time
- Employed part time
- Unemployed / Looking for work
- Student
- Homemaker
- Other (please state) \_\_\_\_\_

3. What is your marital/civil union status? (Circle one)

- Single
- Married
- Living with partner
- Separated

- Divorced
- Widowed

4. Were you born in New Zealand? (Circle one)

- Yes
- No

5. Would you describe yourself as (circle one):

- New Zealander of European descent
    - Maori
    - Pacific Islander
    - Asian
    - European (not born in New Zealand)
  - American
  - Middle Eastern
  - African
  - Other (please state)
- 

6. How many pregnancies including this pregnancy have you had? (Twin pregnancy is one pregnancy) \_\_\_\_\_

7a. How many children have you given birth to? \_\_\_\_\_ (if none go to Q8)

7b. If you have had children previously what is the birth date of your last born child?  
(month/year) \_\_\_\_\_/\_\_\_\_\_

8. Who is your main maternity caregiver during this pregnancy? (Circle one)

- Midwife
- General Practitioner
- Obstetrician

9. Did you consult with a health professional (such as your general practitioner or a fertility specialist) prior to becoming pregnant? (Circle one)

- Yes
- No

10. At the time you became pregnant with this baby: (Circle all that apply)

- I did not want a child at that time.
- I was not planning to have children.
- I wanted to wait longer before having children.
- I wanted to wait longer before having another child.
- I wanted to have a child.
- I planned to have this pregnancy.

11. Have you ever breastfed previously? (Circle one)

- Yes
- No

12. At this point in your pregnancy, do you think that you are going to breastfeed your baby? (Circle one)

- Yes, I intend to six months exclusively breastfeed my baby
- No, I intend to use infant formula
- At this point I intend to use both formula and breast milk
- I have not decided

13. Has your main Maternity Caregiver given you advice about breastfeeding during your usual visits to check on your pregnancy? (Circle one)

- Yes
- No

14. Please fill in details against your most preferred option for me to contact you to arrange an interview following the birth of your baby?

Text \_\_\_\_\_

Telephone \_\_\_\_\_

Email \_\_\_\_\_

I would like to *Thank you for taking your time to answer these questions*

*“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email humanethicsoutha@massey.ac.nz.”*

## **Appendix 9: First Face To Face Interview Schedule**

1. Tell me about the birth of your baby.
2. Tell me about initiating breastfeeding
3. Has your baby received anything except your breast milk, or water, from birth to up till now?
4. Have you had any issues or concerns with breastfeeding your baby up until now?
5. For how many months do you currently plan to breastfeed your baby?

### **Advice about breastfeeding**

6. What kind of advice have you had about breastfeeding?
  - a. From your midwife, doctor or lactation consultant?
  - b. Partner
  - c. Other family members?
  - d. Friends?
  - e. ante-natal classes;
  - f. online communities and websites
7. What kinds of things (health professional, partner, family, friends, internet and literature) were key influences on your decision to breastfeeding or formula feed?
  - a. What kinds of things did your health professional do that made you feel confident about breastfeeding?
  - b. What do you wish your midwife/doctor/lactation consultant would have said or done to support you to breastfeed your baby?
  - c. What kind of information do you wish you had gotten from your health care provider or your baby's health care provider to support your decisions related to feeding your baby?
8. For women who have a partner/spouse
  - a. What kinds of things did your spouse/partner do that made you feel confident about breastfeeding?
  - b. What do you wish your spouse/ partner would have said or done to support you to breastfeed your baby?
9. For women who have maternal support.
  - a. What kinds of things did your mother do that made you feel confident about breastfeeding?
  - b. What do you wish your mother would have said or done to support you to breastfeed your baby?
10. What kinds of things did your friends/other family members do that made you feel confident about breastfeeding?
  - a. What do you wish your family and friends would have said or done to support you to breastfeed your baby?

### **Thinking about returning to work**

For those of you who went to work after having your baby, or intend to return to work soon, what kinds of things did or will you have to deal with in terms of your job and feeding your baby?

11. How did/will returning to work impact your decision to either breastfeed or formula feed your baby?

12. If you decided to breastfeed when returning to work, how do you think your boss or supervisor will feel/felt about your decision to continue breastfeeding? Were there any issues? What are the potential issues?

13. If you decided to breastfeed and work, how did/will your co-workers feel about your decision to continue breastfeeding?

14. If you went back to work, were/are there any workplace rules that made it difficult to keep breastfeeding? If so, what are they?

15. If you decided to breastfeed and work, how did/will your child care provider support your decision to continue breastfeeding?

16. Are there any other comments or concerns you would like to share with us? Was there a question that you hoped I would ask that I didn't ask?

*"This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email [humanethicsoutha@massey.ac.nz](mailto:humanethicsoutha@massey.ac.nz)."*

## Appendix 10: Second Face To Face Interview Schedule

1. Could you tell me about what circumstances led you to decide to stop breastfeeding exclusively?
2. Have you received any professional support for exclusive breastfeeding? If so could you provide an example?
3. Have you talked to your health care provider about stopping exclusive breastfeeding? If so do you think that they were supportive?
4. In hindsight was there anything that your health care provider could have said or done to support your exclusive breastfeeding?
5. Have you talked to family members, such as your spouse/partner/mother/sister(s) about stopping exclusive breastfeeding? Do you think that they were supportive?
6. In hindsight was there anything that family members such as your spouse/partner/mother/sisters could have said or done to support you to breastfeed exclusively?
7. Have you talked to your friends about stopping exclusive breastfeeding? Do you think that they were supportive?
8. In hindsight is there anything that you wish your friends could have said or done to support you to breastfeed exclusively?
9. Since we last talked have you encountered any barriers to breastfeeding your baby? If so, could you provide an example of barriers that you experienced while breastfeeding exclusively?
10. Did you have any good experiences while breastfeeding exclusively? If so could you provide an example?
11. If you breastfed in public how do you think people felt about your breastfeeding? Are you able to provide examples of positive or negative experiences?
12. Do you think that people are judgmental about women who give up breastfeeding? If so, how does that make you feel? Do you think that this makes women feel as though they have to justify their decision to give up breastfeeding when it may be a really good decision for them personally?

### For women who returned to work:

13. How did returning to work impact your decision to give up breastfeeding your baby?
14. How do you think your boss or supervisor felt about your breastfeeding practice? Were there any issues? If so provide an example?
15. If you were still breastfeeding when you returned to work how do you think your co-workers felt about your breastfeeding? Were they supportive of your decision to stop breastfeeding?
16. If you went back to work, were there any workplace rules that made it difficult to keep breastfeeding? If so, what are they?
17. How did your child care provider support your decision to continue or give up breastfeeding?
18. Are there any other comments or concerns you would like to share with me? Was there a question that you hoped I would ask that I didn't ask?

*"This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email [humanethicsoutha@massey.ac.nz](mailto:humanethicsoutha@massey.ac.nz)."*

## Appendix 11: Telephone Interview Schedule

1. Are you currently breastfeeding your baby?  
Yes No
2. If no, what circumstances led to you decide to stop breastfeeding?
3. If yes, has your baby received anything except your breast milk, or water, from birth to up till now?  
Yes No
4. If yes, what food have you given your baby?
5. Since we last talked have you received any support for breastfeeding?
6. Since we last talked have you encountered any barriers to breastfeeding your baby?

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## Appendix 12: Authority for the Release of Transcripts

I confirm that I have had the opportunity to read and amend the transcript of the interview(s) conducted with me.

I agree that the edited transcript and extracts from this may be used in reports and publications arising from the research.

**Signature:**

**Date:**

**Full Name :**

*“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email [humanethicsoutha@massey.ac.nz](mailto:humanethicsoutha@massey.ac.nz).”*



## Appendix 13: Transcriber's Confidentiality Agreement



### Breastfeeding Initiation and Exclusive Duration: the Influence of Antenatal Breastfeeding Intention and Professional, Family and Informal Social Support

#### TRANSCRIBER'S CONFIDENTIALITY AGREEMENT

I, ALISON JEAN SHANNON T/A TRANSCRIPTION ONLINE agree to transcribe the recordings provided to me.

I agree to keep confidential all the information provided to me.

I will not make any copies of the transcripts or keep any record of them, other than those required for the project.

Signature:

A.J. Shannon

Date: 7.1.2015

*"This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 13/30. If you have any concerns about the conduct of this research, please contact Dr Brian Finch, Chair, Massey University Human Ethics Committee: Southern A telephone 06 350 5799 x 84459, email [humanethicsoutherna@massey.ac.nz](mailto:humanethicsoutherna@massey.ac.nz)."*

## Appendix 14: Massey University Doctoral Scholarship



## Appendix 15: The 32 Items' Checklist for Reporting the Qualitative Research

### Domain 1: Research team and reflexivity

#### ***Personal Characteristics***

*1. Interviewer/facilitator: Which author/s conducted the interview or focus group?*

The researcher conducted all the face to face interviews and telephone interviews.

*2. Credentials: What were the researcher's credentials?*

The researcher was a full-time PhD student at Massey University (Feb 2013- Feb 2017).

*3. Occupation: What was their occupation at the time of the study?*

The researcher was a full-time student at Massey University (Feb 2013- Feb 2017).

*4. Gender: Was the researcher male or female?*

Female.

*5. Experience and training: What experience or training did the researcher have?*

The researcher is a non-practising midwife in New Zealand, and has related information and experience. Both her doctoral supervisors are very experienced academic and researchers. In addition, the researcher has about 6 years research experience in midwifery field (2006-2012) as a research assistant and midwifery student of Master of Science degree by courses and research.

#### ***Relationship with participants***

*6. Relationship established: Was a relationship established prior to study commencement?*

No

*7. Participant knowledge of the interviewer: What did the participants know about the researcher?*

The research advertisements placed in the public places and the researcher introduced as a PhD student of midwifery at Massey University.

*8. Interviewer characteristics: What characteristics were reported about the interviewer/facilitator?*

The researcher is a PhD student who trained as a midwife in Iran. She is an international qualified registered midwife, but non-practising midwife in New Zealand.

## Domain 2: study design

### ***Theoretical framework***

*9. Methodological orientation and Theory: What methodological orientation was stated to underpin the study?*

Thematic analysis, Aronson's (1995) four stages thematic analysis method. For theoretical framing, we tried to apply the "level 5" of theoretical visibility typology levels that developed by Bradbury-Jones, et al. (2014).

### ***Participant selection***

*10. Sampling: How were participants selected?*

Through advertisements placed in public places as well as on breastfeeding social media websites and snowballing.

*11. Method of approach: How were participants approached?*

Face-to-face, telephone, texts, mail and email.

*12. Sample size: How many participants were in the study?*

Thirty participants.

*13. Non-participation: How many people refused to participate or dropped out? Reasons?*

Seven participants, four participants did not meet the inclusion criteria, two participants refused to participate and one participant excluded from the research before the face to face interview due to giving birth to twins.

### ***Setting***

*14. Setting of data collection: Where was the data collected?*

All the interviews performed at the participants' home.

*15. Presence of non-participants: Was anyone else present besides the participants and researchers?*

Nobody presented at the interviews except the interviewer and the respondent.

*16. Description of sample: What are the important characteristics of the sample?*

The participants were the pregnant women who had planned to breastfeed exclusively for six months. Most participants are well-educated and highly motivated to breastfed exclusively for six months.

### ***Data collection***

*17. Interview guide: Were questions, prompts, guides provided by the authors? Was it pilot tested?*

All the interview schedules are in the appendices. The interview was not pilot tested, however after conducting a few interviews some questions added to the schedules.

*18. Repeat interviews: Were repeat interviews carried out? If yes, how many?*

None of the interviews was repeated.

*19. Audio/visual recording: Did the research use audio or visual recording to collect the data?*

All the face to face interviews as well as telephone interviews are audio recorded and transcribed verbatim.

*20. Field notes: Were field notes made during and/or after the interview or focus group?*

No field notes made during the interviews.

*21. Duration: What was the duration of the interviews or focus group?*

The duration of each face to face interview was up to one hour and each telephone interview was about five minutes.

*22. Data saturation: Was data saturation discussed?*

The adequacy of the sample is discussed in the methodology chapter.

*23. Transcripts returned: Were transcripts returned to participants for comment and/or correction?*

All the interview transcripts returned to the participants for their feedback and confirmation.

### **Domain 3: analysis and findings**

#### ***Data analysis***

*24. Number of data coders: How many data coders coded the data?*

The researcher read all the verbatim transcribed interviews several times and highlighted the relevant themes to the research questions for thematic analysis.

*25. Description of the coding tree: Did authors provide a description of the coding tree?*

Interview material was interpreted using Aronson's (1995) four stages thematic analysis method and the four stages are explained in the methodology section.

*26. Derivation of themes: Were themes identified in advance or derived from the data?*

All the themes derived from the interview's transcripts.

*27. Software: What software, if applicable, was used to manage the data?*

No computer software used for the analysis of the data. And manual coding was employed to interpret the textual data.

*28. Participant checking: Did participants provide feedback on the findings?*

No. Both doctoral supervisors provided feedback on the findings. The reasons for not sending back the findings to the participants have explained in the research method chapter.

***Reporting***

*29. Quotations presented: Were participant quotations presented to illustrate the themes / findings? Was each quotation identified?*

All the themes presented using the participants' quotations by giving a pseudonym to all participants.

*30. Data and findings consistent: Was there consistency between the data presented and the findings?*

There is a consistency between each interview's extract and the emerged themes.

*31. Clarity of major themes: Were major themes clearly presented in the findings?*

All the major themes listed at the findings section in each chapter.

*32. Clarity of minor themes: Is there a description of diverse cases or discussion of minor themes?*

All the minor themes integrated with the major themes, clarified and outlined in the findings section of each substantive chapters.

## Appendix 16: Certificate of Midwifery Registration



Te Tatau o te Whare Kahu  
midwifery council  
of New Zealand

### CERTIFICATE OF REGISTRATION

*The Midwifery Council certifies that*

**Narges Alianmoghaddam**

*has met the requirements for registration as a midwife in New Zealand and was entered onto the Register of Midwives*



Notes: Midwives are permitted to practise within the Midwifery Scope of Practice and must hold a current practising certificate for legal practice in a midwifery role in New Zealand.

This Certificate was issued pursuant to Sections 12 – 22 of the Health Practitioners Competence Assurance Act 2007.

On 14 April 2015

Registration Number 15-15010

Signed *Amboke*  
Secretary

## Appendix 17: Demographic Details of Research Participants

Age (Years)	
<25	2
25-35	18
35<	10
Education	
Some high school but did not finish	3
Completed high school	3
Undergraduate or university student	13
Postgraduate degree	8
PhD and doctoral Candidate	3
Employment	
Homemaker	10
Employee on maternity leave	20 (19 more than six months)
Stay at home mother more than six months	29 (homemaker and employee)
Marital Status	
Married	23
Living with a male partner	7
Ethnicity	
New Zealander of European decent	21
European	3
Maori or Maori/Pakeha	3
Asian	1
Middle Eastern	2
Childbirth History	
Primipara	7
Multipara	23



Planned Pregnancy	22
Unplanned Pregnancy but wanted	7
Unwanted Pregnancy	0
No answer	1
<b>LMC</b>	
Midwife	27
Midwife + Obstetrician	2
Obstetrician	1
<b>Type of Birth</b>	
Home birth	2
Vaginal Birth at Baby Friendly Hospital	23
Caesarean	5
<b>Breastfeeding</b>	
Breastfeeding Experience	21
Antenatal Intention to six months EBF	29
Six months EBF	15
Five months EBF	6
Four months EBF	4
Three months EBF	1
Mixed feeding (Breast milk + Formula)	3
Fully Formula feeding	1

Appendix 18: Permission to Use Copyright

JJ

Jennifer James <btfeditor@gmail.com>

Mon 10/07, 1:37 pm.

Dear Narges

yes of course you have our permission

I wish you well with your thesis

warm regards

Jenni

Jennifer James

Editor

Breastfeeding Review

btfeditor@gmail.com

0411 409375

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Allanmoghaddam, Narges

Fri 23/06, 2:24 pm.

Jennifer James <btfeditor@gmail.com>

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Dear Jennifer,

I hope you are doing well.

Please find the attached documents. I need your permission for using some parts of the pre-print version of the paper published in Breastfeeding review journal by me and my supervisors to be included in my doctoral thesis.

I really appreciate your time and your support.

Warmest Regards,

Narges

Narges Allanmoghaddam


Doctoral Candidate of Midwifery


School of Public Health

Massey University, New Zealand

Phone Number: +6463569099 Ex 85650

I AM THE NEW





Jennifer

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