



**BREASTFEEDING DIFFICULTY AFTER CAESAREAN SECTION  
UNDER REGIONAL ANAESTHESIA: A PHENOMENOLOGICAL STUDY**

Submitted by

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All research procedures reported in this thesis received the approval of the relevant Ethics/Safety Committees.

Signed \_\_\_\_\_ Jacqueline Chaplin 11/11/11

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## **ABSTRACT**

This study explored the experiences of women with breastfeeding difficulties following a caesarean section under regional anaesthesia. Further, this research aimed to explore the difficulties women experienced initiating and establishing breastfeeding when their babies seemed indifferent or unable to latch to the breast. Caesarean delivery rates have increased progressively in Australia over the last decade creating new challenges for breastfeeding mothers and caregivers. The advantages of breastfeeding to both the mother and baby are well recognised. However, breastfeeding problems are common in the initial postpartum period, particularly with mothers who have had a caesarean section. Despite high breastfeeding initiation rates, duration rates of exclusive breastfeeding continue to fall.

An extensive review of the literature revealed that there are a number of factors that lead to difficulties breastfeeding following a caesarean section. These included the effects of caesarean delivery and regional anaesthesia, lack of skin to skin contact, formula supplementation, and inadequate postnatal care on infant behaviour and the initiation, establishment and duration of breastfeeding. However, no qualitative research was identified specifically relating to the lived experience of women having difficulties breastfeeding after caesarean section, identifying a significant gap in the literature. This study explores the lived experience of a group of mothers with breastfeeding difficulties after delivering by caesarean section under regional anaesthesia. The difficulties they were having centred on problems initiating and establishing breastfeeding their babies who seemed indifferent or unable to latch to the breast.

Interpretive phenomenology was considered the most relevant approach for this research due to the methodologies ability to produce rich data in order to explore the essence of the lived experience. Purposeful sampling was employed to select eight participants who were interviewed in their homes two to three weeks after birth. Interviews were recorded, transcribed verbatim, and analysed using van Manen's circular process of hermeneutical writing, underpinned by Heidegger's hermeneutic

circle of understanding. The hermeneutical circle is a circle of interpretation that moves forward and backward between the parts and the whole. Through this interaction and understanding the data was reflected on and sub themes and themes were identified. Key themes included *Unnatural birth*, *Natural instincts compromised*, *Helping mothers to mother*, and *Sabotage and defeat*. These themes reflected the mothers' journey through birth, the baby's difficulty feeding, postnatal challenges and how the mothers' felt in response to these challenges. Overall, the data illustrated that the mode of birth can interfere with the normal mechanisms of birth and the intrinsic desire of a baby held skin to skin to effectively latch and suckle.

The key findings of the study included the concept that the four themes are bound inextricably together. *Unnatural birth* causes *natural instincts* to be *compromised*. *Helping mothers to mother* in a sensitive and supportive manner will help those instincts both maternal and infant, to be strengthened. Ensuring only breastmilk is consumed by breastfed infants helps ensure breastfeeding is not compromised and mothers can be assisted in their desire to breastfeed. These findings were further synthesised to create a supportive framework for breastfeeding after caesarean section. Central to this framework is the notion that encouraging and valuing normal birth, supporting the natural instincts of mother and baby and increasing breastfeeding support for mothers who birth by caesarean section is fundamental to midwifery care. These concepts formed the basis of recommendations for changes to midwifery clinical practice that could improve breastfeeding outcomes for women.

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## LIST OF ABBREVIATIONS AND DEFINITION OF TERMS

ABA	Australian Breastfeeding Association.
BFHI	Baby Friendly Health Initiative.
Caesarean section	A surgical procedure in which incisions are made through a woman's abdomen and uterus to deliver her baby.
Colostrum	The first milk produced during pregnancy and after birth in small concentrated volumes, usually yellow in colour and creamy, and contains antibodies including secretory IgA, leukocytes, proteins, Vitamin K and Vitamin A. It protectively coats the gastrointestinal tract and is a natural laxative, removing the meconium from the baby's system.
Epidural anaesthesia	Regional anaesthesia following an injection of anaesthetic into the epidural space of the lumbar or sacral region of the spine.
Exclusive breastfeeding	The infant only receives breastmilk (and if necessary, medication) no other fluid or food is introduced or administered.
IBCLC	International Board Certified Lactation Consultant.
Lactogenesis II	Occurs 30-40 hours after delivery of the placenta, resulting in a sudden drop in progesterone and oestrogen, causing increased breast fullness at 50-73 hours after birth. This is commonly known as milk coming in.
Multipara (multip)	A woman who has had two or more pregnancies.
Opioids	Any synthetic narcotic that has opiate like activities such as sedation and pain relief but is not derived from opium
Oxytocin	A hormone released by the pituitary gland that causes contraction of the uterus during labour and contraction of cells surrounding the breast alveoli

	moving the milk into the ducts and towards the nipple. This is known as the milk ejection reflex.
Partial breastfeeding	In addition to breastmilk (and medication), the infant receives non-human milk and formula or other solid or semi- solid food.
Predominant breastfeeding	In addition to breastmilk (and medicine) the infant receives other fluids such as water, tea and fruit juice but no non-human milk or formula.
Primipara (primip)	A woman who has or is giving birth for the first time.
Prolactin	A hormone secreted by the anterior pituitary gland in response to the sucking stimulus to produce milk.
Regional anaesthesia	The use of local anaesthetic, with or without opioids to induce loss of sensation to any region of the body.
Skin to skin contact	Placing a naked baby prone on the mother's bare chest covering the baby with a warm blanket and the head with a dry cap immediately after birth and in the postpartum period. Skin to skin contact promotes inherent neurobehaviours and maternal oxytocin release.
Vaginal birth	Birth of a baby through the vagina.
VBAC	Vaginal birth after caesarean section.
WHO	World Health Organisation.

# **CHAPTER ONE**

## **INTRODUCTION**

Exclusive breastfeeding is well recognised as being beneficial to both the mother and baby due to the provision of immediate and long term health benefits. Breastmilk provides essential immunoglobulins and protective factors against infection and disease; and growth factors for the infant. Exclusive breastfeeding provides protection against respiratory illness, otitis media, necrotising enterocolitis and other gastrointestinal infections, and increases intelligence scores (National Health and Medical Research Council [NHMRC], 2003). For the mother the benefits of breastfeeding include promotion of childbirth recovery, reduced risk of breast and ovarian cancer, improved bone mineralisation, and improved maternal bonding (NHMRC, 2003).

In order to protect, promote, and support breastfeeding globally, The Baby Friendly Health Initiative (BFHI) was developed to promote implementation of the Innocenti Declaration which was announced at the Forty-fifth World Health Assembly in 1992 to counter decreasing breastfeeding rates at the time (Rowe-Murray & Fisher, 2002). Hospitals worldwide are encouraged to adopt the BFHI which includes the Ten Steps to Successful Breastfeeding, a strategy of the World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) to improve health through sustained breastfeeding (WHO, 2009). These steps positively influence breastfeeding outcomes, enhancing breastfeeding initiation and duration. Routine practices such as separation of mother and baby, night nurseries, and formula supplementation are all targeted in the Ten Steps (WHO, 2009). Furthermore, these steps are identified as best practice standards for policy and procedures relating to initiation of breastfeeding in health care organisations. The Ten Steps to Successful Breastfeeding are as follows:

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

1. Have a written breastfeeding policy that is routinely communicated to all health care staff;
2. Train all health care staff in skills necessary to implement this policy;

3. Inform all pregnant women about the benefits and management of breastfeeding;
4. Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour and encourage mothers to recognise when their babies are ready to breastfeed, offering help if needed;
5. Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants;
6. Give newborn infants no food or drink other than breastmilk, unless medically indicated;
7. Practice rooming-in, allow mothers and infants to remain together-24 hours a day;
8. Encourage breastfeeding on demand;
9. Give no artificial teats or dummies to breastfeeding infants;
10. Foster the establishment of breastfeeding support and refer mothers on discharge from the facility (WHO, 2009).

The Australian College of Midwives is the governing body for BFHI Australia (BFHI, 2009). In Australia there are 23% (n=77) of all Australian maternity hospitals that are Baby Friendly accredited. Advocacy for breastfeeding is also provided by the Australian Breastfeeding Association (ABA), a volunteer community organisation that provides peer support to breastfeeding mothers and encourages women to breastfeed their babies. The ABA also raises community awareness of the importance of breastfeeding and human milk and supports BFHI accreditation of hospitals and other health care organisations (ABA, 2008).

In Australia in 1995, 81.8% of women were exclusively breastfeeding on discharge from hospital. However, this decreased to 57.1% of babies being fully breastfeeding at three months. At six months these rates decreased to 18.6% (NHMRC, 2003). More recently, the Growing Up in Australia Longitudinal Study found that 92.0% of women commenced breastfeeding but at three months rates had decreased to 56.0% and at six months only 14.0% continued to exclusively breastfeed (Australian Health Ministers' Conference, 2009; Australian Institute of Family Studies, 2008). In 2011 it is estimated that 90-94% of mothers in Australia initiate breastfeeding (NHMRC, 2011). However, in 2007 in South East Queensland these figures were

lower with 38.1% of women exclusively breastfeeding at two months of age and only 9.5% continuing at five months of age (Paul, Johnston, Walker, Stanton & Bibo, 2007). Thus, initiation rates had increased, three month rates were relatively static, and six month rates had decreased over this time period. Recent national breastfeeding rates fall well below the recommended goals of the NHMRC of an 80% breastfeeding rate at six months of age (NHMRC, 2011). Similarly, Queensland Health's goals of aiming to achieve breastfeeding rates of 60% at three months and 50% at six months by 2008 were significantly unmet (Queensland Health, 2003). The high rates of breastfeeding initiation suggest that women want to breastfeed however, many are not continuing beyond two weeks of age (Department of Health and Ageing, 2007). The Australian Health National Breastfeeding Strategy 2010-2015 recommended increasing the number of babies who are fully breastfed from birth to six months of age to improve the health and nutrition of infants and mothers (Australian Health Ministers' Conference, 2009).

The birth experiences of mothers and babies and the feeding practices encouraged after birth have been identified as affecting the establishment of breastfeeding (Baxter, Cooklin, & Smith, 2009). Procedures and drugs given during labour can affect the baby's behaviour at birth, impacting on the ability of the infant to breastfeed (Klaus & Klaus, 2009). Skin to skin contact immediately following birth and assisting mothers to recognise their infants' early feeding cues helps to establish breastfeeding initiation (Australian Health and Medical Conference, 2009).

Establishing breastfeeding is increasingly challenging in an environment of rising caesarean section deliveries presently prevailing in Australia. Australia's caesarean section rate has increased from 19.3% in 1997 to 31.1% in 2008 (Australian Institute of Health and Welfare, 2010). Currently in Queensland the caesarean section rate is 33.3% but differs markedly between private and public hospitals. For instance, the caesarean rate for those receiving private care is 47.5% versus 27.8% for women in the public sector (Australian Institute of Health and Welfare, 2010). Interestingly, despite higher initiation rates for breastfeeding, at six months of age breastfeeding rates have decreased in line with an increase in caesarean section rates over the same period of time (Australian Health Ministers' Conference, 2009; Australian Institute of Family Studies, 2008).

Women who birth by caesarean section are given drugs as analgesics and anaesthetics, to inhibit pain and sensation (Poole, 2003). These drugs are commonly administered via epidural or spinal techniques, or a combination of both to provide regional anaesthesia. These drugs cross the placenta and are present in the fetal circulation within ten minutes (Riordan, Gross, Angeron, Krumwiede, & Melin, 2000). This transfer of the anaesthesia drugs and opioids from the maternal to the fetal bloodstream has been reported to affect the breastfeeding behaviour of the baby. For instance, delayed clearance of these drugs allows accumulation in the central nervous system which causes behavioural changes in infants such as sleepiness, and depression of feeding reflexes and muscle tone (Jordan, Emery, Bradshaw, Watkins, & Friswell, 2005). Therefore, difficulty in establishing breastfeeding often occurs and results in early breastfeeding cessation (Jordan et al., 2005).

## **Background**

The hospital where this study takes place is a large tertiary referral hospital in Brisbane, Queensland, with almost 10,000 births per annum. It comprises of public and private maternity care, approximate to each other in birth numbers. Of note the hospital is not BFHI accredited, but recently a coordinator has been employed to prepare for this project. In 2003, a Lactation Support Service was established to provide more specialised breastfeeding support by a team of three midwives who were International Board Certified Lactation Consultants. Their role was to provide evidence based and consistent breastfeeding education to mothers and staff and to support women with more complex breastfeeding issues. The service grew rapidly to encompass breastfeeding support for the entire hospital campus. The service continued to grow and expand and responding to consumer demand, began to offer breastfeeding consultations to women after discharge to attend the Breastfeeding Support Centre.

Having worked at the hospital as a midwife in most areas of care I was inspired as a Lactation Consultant to ensure that women received the education and support needed to breastfeed their babies successfully. I was one of the Lactation Consultants who founded the original Lactation Service and was committed to improving the breastfeeding experience of the women who birthed there. I have continued to work in the Breastfeeding Support Centre part time. Over time, as a

Lactation Consultant, I noticed an increasing trend towards sleepy babies who did not seem interested in breastfeeding after birth. These babies were more often birthed by either elective or emergency caesarean section and then displayed little interest in feeding and experienced difficulty latching to the breast. Some would latch to the breast but then not suckle to transfer the milk and quickly fall asleep. The mothers would need support with expressing milk to feed their sleepy babies. Often the baby's lack of feeding would lead to jaundice and increasing sleepiness, and sometimes resulting in supplementation with formula at the request of the doctors or midwives. These babies would often go home feeding poorly or not at all at the breast, resulting in the mothers expressing milk and losing faith in their ability to breastfeed.

On searching the literature I found that the experience of having breastfeeding difficulties after caesarean section and/or regional anaesthesia was the focus of a number of studies. In particular, studies investigated the link between the infant's sleepy behaviours, mode of birth and the drugs used in the regional anaesthesia administered to the women (Beilan, Bodian, Weiser, Hossain, Arnold, Martin, & Holzman, 2005; Torvaldsen, Roberts, Simpson, Thompson, & Ellwood, 2006; Jordan et al., 2005). Therefore I embarked on a journey to explore this trend further. I felt that an investigation into the experiences of women who were facing the challenge of breastfeeding difficulty after caesarean section under regional anaesthesia was warranted. An extensive literature search found a gap in the literature concerning rich descriptive qualitative data relating to this phenomenon. Therefore, exploring and interpreting the lived experience of a group of women who were referred to the Breastfeeding Support Centre with breastfeeding difficulty associated with having a sleepy infant who would not feed became the focus of a qualitative study. Hence, data from this qualitative study would add to the body of literature on this topic and also inform midwifery clinical practice.

### **Aim of the study**

The aim of this study is to explore the lived experience of a group of women having difficulty breastfeeding their sleepy baby after having birthed by caesarean section under regional anaesthesia. Moreover, this research aims to explore the difficulties women experienced initiating and establishing breastfeeding when their babies

seemed indifferent or unable to latch to the breast. Exploring the experiences of these women could provide further insight into a possible connection between sleepy infant behaviour post birth, mode of birth, and the drugs used in regional anaesthesia.

### **Significance of the study**

This research sought to understand the lived experience of women who were having difficulty breastfeeding their baby after having birthed by caesarean section. This topic is significant in an environment where caesarean birth rates continue to increase (Australian Institute of Health and Welfare, 2010). Society recognises the importance of breastfeeding in relation to the health of infants, women and the population in general (WHO, 2009). Furthermore, if the goal of the health care system is to increase the rate of breastfeeding initiation and duration, it is of the utmost importance that this group of women and babies are given increased support particularly in the early postnatal period, to ensure these goals are met. It is also important to have a thorough understanding of why this cohort of women may experience breastfeeding difficulties and what can be modified or improved upon in the delivery of midwifery care.

Problems experienced by mothers initiating breastfeeding in the early postnatal period can undermine their confidence to continue to breastfeed their baby which can influence the duration of exclusive breastfeeding (Rowe-Murray & Fisher, 2002). If a baby remains sleepy and not interested in breastfeeding during the first few days of life, mothers may become disheartened. If women experience difficulty attaching the baby to the breast, breastfeeding may be perceived as being too difficult, and women may decide to change to formula feeding. Thus, these problems may be prevented with a greater understanding of the issue.

A widespread search of the literature showed that women birthing by caesarean section under regional anaesthesia are at increased risk of breastfeeding difficulty and early cessation of breastfeeding (Beilan et al., 2005; Torvaldsen et al., 2006; Jordan et al., 2005; Chien & Tai, 2007; Rowe-Murray & Fisher, 2002; Zanardo, Svegliado, Cavallin, Giustardi, Cosmi, Litta & Trevisanuto, 2010). However, little research has explored the experiences of women who face difficulty in breastfeeding



a sleepy baby after this mode of delivery. The need to further understand this phenomenon provided the impetus for this research study.

### **Organisation of the thesis**

This thesis presents a research study that explored the experiences of a group of mothers who had difficulty breastfeeding their sleepy babies after having birthed by caesarean section under regional anaesthesia. Their experiences were explored using interpretive phenomenology, as this approach best enables rich descriptive data to be revealed by the participants. Moreover, phenomenology permits the participants lived experience to be interpreted and understood. Interpretive phenomenology involves interpreting and understanding, not just describing the human experience. It involves entering another's world or experience to find an understanding of that world. In an interpretive phenomenological study it is assumed that there is prior understanding by the researcher (Polit & Beck, 2004).

In Heidegger's phenomenology the interpretive process is circular, moving back and forth between the whole and its parts and between the researcher's previous understanding and what was learned through the investigation. Heidegger referred to this action as entering into a hermeneutic circle of understanding which blends together meanings as described by the researcher and the participants. The aim is to identify meanings from the combination of the researcher's understanding, the information derived from the participants, and data obtained from other relevant sources (Wojnar & Swanson, 2007).

My background as a midwife and lactation consultant was an inherent component of the recognition of this phenomenon as an issue requiring attention and my prior knowledge and experience would allow me to interpret and understand the data acquired from the study. Therefore, the methodology chosen reflected the need to include this knowledge and experience in the interpretation of the data and presentation of findings. This standpoint would also influence the interpretation of the data. The use of Heidegger's hermeneutic circle to interpret the women's stories would also enhance the rigour and validity of the study.

Overall, possessing a greater understanding of this phenomenon has the potential to identify possible changes to practice that could be investigated and proposed as

necessary. The information gained from this study and the understanding gained in this area, will assist in filling the void in knowledge of what women could be experiencing with regard to this phenomenon.

## **Thesis overview**

The thesis is presented in five chapters, beginning with this introduction to the study and its significance to breastfeeding and midwifery. Chapter Two consists of an extensive literature review that examines existing literature regarding the prevalence of caesarean section, the effects of caesarean delivery and regional anaesthesia on breastfeeding, the use of Fentanyl and other opioids in anaesthesia, and the effect of epidural anaesthesia on endogenous oxytocin. The literature was also explored in terms of the effect that regional anaesthetics can have on the baby's feeding behaviours, the duration of breastfeeding and the mother's ability to care for her baby postnatally.

Chapter Three provides a description of the chosen methodology, and its relationship to midwifery and this study. This chapter also outlines the methods used and details the approach to data analysis, ethical considerations, and research rigour. In Chapter Four the data and analysis of findings are presented including the emergent themes. These themes included, *Unnatural birth*, *Natural instincts compromised*, *Helping mothers to mother*, and *Sabotage and defeat*. These themes represented the mothers' journey through birth, the baby's readiness to feed, the postnatal challenges and the mothers' response to these challenges. The final chapter is Chapter Five, whereby the findings are discussed together with their implications to midwifery knowledge and practice. Limitations of the study are identified, and the chapter concludes with recommendations for policy and practice changes and further research. The following chapter presents a review of the literature.

## **CHAPTER TWO**

### **REVIEW OF THE LITERATURE**

#### **INTRODUCTION**

The advantages of breastfeeding to both the mother and baby are well recognised. However, breastfeeding problems are relatively common in the initial postpartum period, particularly with mothers who have had a caesarean section. These difficulties often result in the cessation of breastfeeding (Rowe-Murray & Fisher, 2002). The World Health Organisation (WHO) and the National Health and Medical Research Council (NHMRC) recommend that women exclusively breastfeed their babies until six months of age and continue breastfeeding beyond 12 months of age (World Health Organisation, 2009; National Health and Medical Research Council, 2003).

This review of the literature outlines a number of factors that can lead to difficulties breastfeeding, particularly following a caesarean section. These include the effects of caesarean delivery and regional anaesthesia on breastfeeding, the use of Fentanyl and other opioids for anaesthesia, and the effect of epidural anaesthesia on endogenous oxytocin. The literature is explored in terms of the effect that regional anaesthetics can have on the baby's feeding behaviours, the duration of breastfeeding and the mother's ability to care for her baby postnatally. Finally, the impact that postnatal care can have on breastfeeding outcomes is considered. However, in order to contextualise the exploration of the literature, the first section of this review addresses the overall topic of breastfeeding difficulties, prior to exploring breastfeeding and caesarean section and the increasing incidence of caesarean sections in Australia and the associated impact on breastfeeding.

#### **Breastfeeding Difficulties**

Despite the desire a woman may have to breastfeed and the World Health Organisations (2009) drive for exclusive breastfeeding, there are many challenges associated with establishing and maintaining breastfeeding of a newborn infant. Women's experiences of breastfeeding and breastfeeding problems in general, have

been examined in various metasyntheses of qualitative studies. For instance, in their analysis of seventeen studies Burns, Schmied, Sheehan and Fenwick (2009) found women described breastfeeding in terms of expectation and reality. Additionally, women perceived they were either emotionally connected or disconnected with breastfeeding. The seventeen studies revealed themes such as breastfeeding is not as easy as it looks, breastfeeding is demanding, breastfeeding requires perseverance, babies don't know how to feed, and support people can be unhelpful. Furthermore, Burns et al found that women described feeling a failure or feeling guilty for stopping breastfeeding because breastfeeding is 'best' and 'natural'.

Breastfeeding difficulties can be reduced through the implementation of a number of strategies such as the provision of quality support. For example, a metasynthesis of thirty one studies conducted by Schmied, Beake, Sheehan, McCourt and Dykes, (2011) found that women's experiences of support ranged from authentic presence in a facilitative style which was perceived as effective, to disconnected encounters in a reductionist approach, perceived as ineffective and discouraging. Thus, continuity of care giver models and peer support for breastfeeding women were recommendations of Schmied et al's study. A further metasynthesis involving seven studies also identified that breastfeeding is affected by support networks, mothers' expectations, breastfeeding experts, and perceptions of breastfeeding and motherhood (Larsen, Hall, & Aagaard, 2008). Moreover, Larsen et al. concluded that mothers need time and support, to be listened to and acknowledged, and reassured that problems with breastfeeding are not unusual (Larsen et al., 2008).

Therefore, a recent review of research has revealed that breastfeeding difficulties are relatively common in the postnatal period. However, the literature also needs to be explored in terms of factors that could increase or add to the likelihood of breastfeeding problems occurring, in particular the effect that caesarean section and regional anaesthesia has on breastfeeding.

### **Breastfeeding and Caesarean Section**

In 1995 exclusive breastfeeding rates in Australia were 81.8% on initiation, decreasing to 57.1% at three months, and further reducing to 18.6% at six months (NHMRC, 2003). In 2004, 92.0% of women commenced breastfeeding, but by three months rates had decreased to 56.0% and by six months only 14.0% were fully

breastfeeding (Australian Health Ministers' Conference, 2009). Thus initiation rates had increased, three month rates were static, and six month rates had decreased over this time period. In comparison over a similar time period, Australia's caesarean section rate has increased considerably from 19.3% in 1997 to 31.1% in 2008 (Australian Institute of Health and Welfare, 2010). Currently in Queensland the caesarean section rate is 33.3% and differs markedly between private and public hospitals, 47.5% versus 27.8% respectively (Australian Institute of Health and Welfare, 2010). The WHO recommends that caesarean delivery rates should not exceed 15% (WHO, 2010).

Caesarean delivery involves the use of analgesia and anaesthesia. Analgesia is the use of medication to decrease the normal sensation of pain, whilst anaesthesia is the use of medication to provide partial or complete loss of sensation with or without loss of consciousness (Poole, 2003). Regional analgesia/anaesthesia is the use of local anaesthetic, with or without added opioids, to induce analgesia and/or anaesthesia to any region of the body. In childbirth, it is commonly delivered via epidural or spinal techniques, or a combination of both. They are termed regional techniques because they are limited to a specific region of the body. In obstetrics this refers to a loss of pain awareness below the thoracic vertebrae of T8 to T10 (Poole, 2003). They are also known as neuraxial techniques because they exert an effect on the axial part of the central nervous system (Grant, Hepner, & Barss, 2009).

The increased incidence of caesarean section in developed countries is thought to be attributed to an increase in the primary caesarean rate, along with a decline in the rate of vaginal birth after caesarean section (VBAC). The rate of primary caesarean section in Australia in 2008 was 21.0% (Australian Institute of Health and Welfare, 2010). The rate of primary caesarean section for primiparous women in 2008 was 32.0%, with Queensland having the highest state rate of 34.5% (Australian Institute of Health and Welfare, 2010). The non-instrumental VBAC rate in 2008 was only 13.3%, with the instrumental VBAC rate being 3.4% (Australian Institute of Health and Welfare, 2010). In Queensland these rates were 13.4 and 2.6% respectively (Australian Institute of Health and Welfare, 2010).

In a recent study by Homer, Johnston and Foureur (2011), retrospective data of births in New South Wales (NSW) hospitals from 1998 to 2006 was analysed to

assess outcomes related to the next birth after caesarean section and changes over time. The investigators found the rate of VBAC had declined significantly from 31% to 19% over this time period. Furthermore, the rate of women who commenced labour, either spontaneously or induced, after one previous term caesarean section decreased from 49% to 35% suggesting women are having elective caesarean section instead. The authors were not able to determine the uterine rupture rate over time which was acknowledged as a limitation of the study. The perinatal mortality rate was higher in the group who attempted VBAC (1.7 per 1000 women), compared to that of the elective caesarean section group (0.95 per 1000). However, this small increase in risk must be weighed up against risks associated with repeat caesarean section. Homer et al. recommended an emphasis on keeping the first birth normal, and support for VBAC. Baxter and Davies (2010) suggest that medical-legal concerns may be influencing the way obstetricians discuss the risk of VBAC with women and therefore influence a woman's decision to attempt VBAC. Within the context of increasing caesarean deliveries in Australia, the current research exploring breastfeeding difficulty after caesarean section becomes increasingly important.

Also thought to contribute to the increased caesarean section rate is the perception that there is a rise in maternal request for caesarean section in the absence of medical indications (Thompson, 2010; Weaver, Statham & Richards, 2007; Miesnik & Reale, 2007; Wiklund, Edman, Ryding & Andolf, 2007). Thompson asserts that this is difficult to determine due to the intricacy of decision making around mode of birth, and the influence of the obstetrician or midwife in the negotiations and decision. Informed choice is an important concept in the exploration of this issue, along with duty of care and costs to society (Thompson). Other research found "that maternal choice does not constitute a major driver for rising caesarean section rates" (McCourt, Weaver, Statham, Beake, Gamble, & Creedy, 2007, p 78). Furthermore, a Cochrane review of caesarean section for non-medical reasons stated that there is no evidence on which to base the practice of elective caesarean section in the absence of medical indications (Lavender, Hofmeyr, Neilson, Kingdon & Gyte, 2007). Whatever the reason for women birthing by caesarean section, the evidence suggests that caesarean section, both elective and emergency, contributes to delayed initiation of breastfeeding (Rowe-Murray & Fisher, 2002), delayed onset of

lactation (Scott, Binns & Oddy, 2007), breastfeeding difficulty, decreased exclusive breastfeeding and early cessation of breastfeeding (Baxter, 2006; Courtney, 2007; Zanardo et al., 2010). This study aims to further explore this phenomenon, in particular, in relation to regional analgesia and anaesthesia.

### **Breastfeeding difficulty and regional analgesia and anaesthesia**

Epidural analgesia is administered into the epidural space between the dura and the ligamentum flavum (Riordan et al., 2000). In caesarean section procedures it is common to combine a regional anaesthetic such as Bupivacaine with a narcotic such as Fentanyl, to potentiate the action of both drugs, so that a lower dose of each of them is required. Anaesthetics and opioids enter the maternal bloodstream quickly from the epidural space then cross the placenta, and are present in the fetal circulation within ten minutes (Riordan et al., 2000; Beilan et al., 2005). Transfer is quicker with more lipophilic compounds such as Fentanyl and Morphine, and is further increased if the fetus becomes acidotic. In babies born via emergency caesarean section, fetal pH can be low which can increase the concentration of free Fentanyl transfer to the baby (Jordan et al., 2005). The plasma half life of Fentanyl is 2-4 hours in adults and 3-13 hours for neonates (Hale, 2007), but elimination can also involve temporary rebounds which can lengthen the depressant effects (Jordan et al, 2005). These depressant effects can last for one to three weeks after birth (Klaus & Klaus, 2010).

This transfer of the anaesthesia drugs and opioids in the maternal and fetal bloodstreams has consequences in relation to breastfeeding outcomes. For example, delayed clearance of these drugs allows accumulation in the central nervous system, which causes behavioural changes such as sleepiness, and depression of feeding reflexes and muscle tone (Jordan et al, 2005). These behavioural changes cause difficulty in establishing breastfeeding, which often results in early breastfeeding cessation (Jordan et al. 2005, Jordan, 2006).

Breastfeeding behaviours necessary for the establishment of lactation include the ability to latch to the breast and maintain the latch, ability to suck or compress the breast tissue and obtain milk from the ducts, and ability to coordinate sucking with swallowing and breathing. The infant needs to be in an alert and aware state with a central nervous system that is functioning well (Radzyminski, 2005).

Further, there is an expanding volume of literature emerging on the association between women who experience difficulty breastfeeding and the administration of intrapartum analgesia and anaesthesia. Of significance, literature exploring the Fentanyl component of epidurals in relation to sleepy infants and difficulty establishing breastfeeding is emerging. A prospective, randomised, double-blind study by Beilan et al. (2005) attempted to determine whether epidural Fentanyl had an impact on breastfeeding. A group of sixty women were randomly assigned to receive epidural analgesia with either no Fentanyl, intermediate dose Fentanyl, or high dose Fentanyl. Blood was also collected from the umbilical vein at delivery and analysed for Bupivacaine and Fentanyl concentration. Infants' neurological behaviour was assessed by a paediatrician, and their degree of breastfeeding difficulty by a lactation consultant and the mother, at 24 hours postpartum. The women were then contacted at six weeks to check breastfeeding status. The study found a dose response connection between difficulty breastfeeding at six weeks postpartum and higher concentrations of Fentanyl in the epidural. However, the difference between the groups at 24 hours postpartum was not of statistical significance, but the authors indicated that the study may have been underpowered (Beilan et al., 2005). Criticism of this study was afforded by Halpern and Lososovich (2005) who claimed that the assessment of breastfeeding at six weeks was not precise, and the specific breastfeeding problems were not made clear. This is a valid criticism, as is the fact that the six week phone assessment was made by one of the anaesthetic research team as opposed to an independent researcher. A further concern was that Beilan et al.'s study used a maternal breastfeeding questionnaire on day one that was too broad to elicit information relevant to the particular problem.

Further research was conducted into breastfeeding difficulty by Torvaldsen et al. (2006). Torvaldsen et al. studied a prospective cohort of 1280 women in the Australian Capital Territory using a series of questionnaires completed by postpartum women up to six months. The authors compared breastfeeding (full, partial, or nil), breastfeeding difficulties in the first week, and duration of breastfeeding, between women according to analgesia use in labour. Of note, Torvaldsen et al. found that epidural analgesia or anaesthesia, general anaesthesia or a caesarean section were associated with an increased risk of partial breastfeeding in the first week. Moreover, women who were partially breastfeeding in



the first week were almost twice as likely to have ceased breastfeeding by 24 weeks, compared to women who were fully breastfeeding in the first week. Women who had epidurals or pethidine in labour had significantly higher rates of breastfeeding cessation in the first 24 weeks, with epidurals associated with the highest rate of cessation. Further, this study found that partial breastfeeding in the first week was strongly linked to difficulty establishing breastfeeding, with the additional risk of giving up breastfeeding altogether. However, the authors acknowledged that this may not be a causal relationship.

The association between breastfeeding problems and intrapartum analgesia or anaesthesia is thought to be due to the pharmacological effect of the analgesic agents, in particular the drug Fentanyl, which is often a component of epidurals (Torvaldsen et al., 2006). Fentanyl is thought to be a causal factor in the sleepiness of many babies after birth and is thought to be dose related (Beilan et al., 2005). However, the literature on this matter is not congruent. Torvaldsen et al. were unable to support or refute this theory, because they could identify only the standard concentration of epidural Fentanyl used at that time rather than specific information on the dosage or timing of Fentanyl used in each case, thus limiting the extent of data analysis. Further, all the women who birthed vaginally with epidural analgesia received intramuscular pethidine as well, making it impossible to state which drug caused the observed effect. Furthermore, the data collection at 8, 16, and 24 weeks did not state why women ceased breastfeeding, and this could have been unrelated to difficulties with feeding.

Of significance, a recent study by Wilson, Macarthur, Cooper, Bick, Moore and Shannon (2010), dispute the findings of the Torvaldsen study stating that “epidural techniques were not standardised with no distinction made in analysis” (p. 150). Wilson et al. in a three arm randomised controlled trial (RCT) in the United Kingdom (UK) randomised primiparous women to receive high dose epidural using Bupivacaine only (n=353), or to have one of two mobile epidural techniques; combined spinal epidural (n=351) or low dose infusion (n=350), both using Bupivacaine and Fentanyl. They were compared with a group of mothers who did not have an epidural (n=351), who were selected by sequential matching to trial group recruits by mode of birth and ethnicity and informed about the study after birth. Of these women, 151 received Pethidine and 200 used nil or other forms of analgesia.

The primary outcome of the study was analgesic and anaesthetic efficacy and the prevalence of backache, comparing breastfeeding initiation and duration as secondary outcomes. Similar proportions of women in each epidural group initiated breastfeeding within 48 hours of birth. Women in the non-epidural no Pethidine group were similar, but significantly less in the non-epidural Pethidine group. A higher proportion of women who didn't have an epidural or Pethidine breastfed within 30 minutes of birth (17.5%) than in any of the other groups, with the lowest being 12% in the epidural group. Breastfeeding duration was longest in the non-epidural no Pethidine group (mean of 18 weeks), and was similar across epidural (13-15 weeks) and Pethidine groups (13 weeks). The researchers acknowledged that maternal reports of breastfeeding at the 12 month postpartum questionnaire may not accurately reflect successful initiation. The exact dosages of drugs in the epidural were also not stated (Wilson et al., 2010). This study, primarily conducted by anaesthetists, does not give details of breastfeeding difficulties, or lactation support received, which are important in assessing breastfeeding outcomes. Of significance to the proposed research, the study did find that women who birthed without epidurals or Pethidine had a higher incidence of breastfeeding within a half an hour of birth and had a longer duration of breastfeeding.

The use of regional analgesia in labour and its effect on breastfeeding was also examined by Loubert, Hinova and Fernando (2011) in a review of the anaesthetic literature from 2002-2010. They reviewed the two prospective RCT's previously evaluated, by Beilan et al. (2005) (n=177) and Wilson et al. (2010) (n=1054) and asserted that Beilan's study had a 10% loss of participants at six weeks which may have changed the statistical difference between groups and therefore introduced a bias to the findings. Furthermore, Loubert et al. assert that Wilson's study did not show any decrease in breastfeeding at six weeks in the epidural groups overall, nor a decrease in breastfeeding initiation in these groups. Therefore, Loubert et al. concluded that low dose Fentanyl epidural labour analgesia does not clinically affect breastfeeding. Therefore, there remains a need for further studies surrounding breastfeeding and epidural use, to confirm reported difficulties.

A prospective cohort study undertaken in Canada of multiparous women (n=87) who requested epidural analgesia in labour, had breastfed previously, and intended to breastfeed this infant (Wieczorek, Guest, Balki, Shah & Carvalho, 2010) is also

noteworthy in terms of this research. The study excluded women who had other forms of analgesia, had an operative delivery, or had received epidural Morphine. The researchers evaluated breastfeeding outcomes by questionnaires delivered during hospital stay, at one week postpartum, and during the first six weeks postpartum, with the latter two conducted over the phone by an investigator blinded to the Fentanyl dose received by the participant. The key finding was that all women were breastfeeding successfully at one week and only four women (5%) had stopped breastfeeding at six weeks, which was lower than found in previous studies despite over 54% of women receiving more than 150 ug of Fentanyl. However, at one week 17% were supplementing by bottle (with either breast milk or formula), because of difficulties breastfeeding, and at six weeks 36% were giving bottles by choice or for maternal difficulties, which leads one to question the finding of breastfeeding success at these time points. Further, this study was not a RCT comparing low and high dose Fentanyl, was small and did not assess nulliparous women or those who had caesarean deliveries. The authors note that Canadian women are given 12 months paid leave from work postpartum and free lactation support including classes and outpatient clinics, which could enhance breastfeeding success. Therefore these results may not be transferable to other populations.

The literature reviewed shows that studies have demonstrated variable effects of neuraxial analgesia on breastfeeding. One researcher, Reynolds (2010) asserts that when local anaesthetic-opioid combination epidurals are used for prolonged periods in labour and then extended for emergency caesarean section, it is unwise for the baby's health and wellbeing to give further opioids until after birth (Reynolds). In addition, the effect of regional anaesthesia on infants' breastfeeding behaviours is difficult to ascertain as neurobehaviour and breastfeeding assessment tools vary, as does anaesthetic protocols, between anaesthetists, hospitals, and countries, and continue to change and develop (Evans et al., 2003). These factors account for the variance and lack of consensus between the studies explored in this review. However, in general the literature examined does support the concept that breastfeeding is affected by regional anaesthesia because of the transfer of narcotics to the baby making the baby sleepy and difficult to breastfeed, though further research is required, including more comparable RCT's and meta analyses.

The lack of consensus in current research also illustrates a need for further research that explores the phenomenon in greater depth, such as the current qualitative study.

### **Regional analgesia, caesarean delivery and exclusive breastfeeding**

Researchers have also explored the effect of regional analgesia and anaesthesia on degree of breastfeeding, or exclusivity. For instance, Jordan et al.'s study, (2005), examined the medical notes of 425 primiparous women who delivered healthy term infants in the UK. The findings demonstrated that the proportion of women who wanted to breastfeed but changed to bottle feeding varied with type of analgesia in labour. The highest proportion was that of epidural analgesia given with an opioid, in this case Fentanyl, ranging from 8- 500 mg. Jordan et al. found Fentanyl increased the probability of bottle feeding by 63%. If women birthed vaginally and were administered Fentanyl, the probability increased by 56% from 11.4 to 17.7%. However, if women birthed by caesarean section were administered Fentanyl, the probability rose 36%, from 34.2 to 46.5%. The researchers demonstrated a dose response relationship between Fentanyl and infant feeding, with an increased change to bottle feeding with increased dosages of Fentanyl administered intrapartum. Jordan et al. assert that opioids exert subtle effects on the central nervous system of the neonate, including neurobehavioural effects that impede breastfeeding. Furthermore, findings suggest that administering neuraxial analgesia containing only local anaesthetics would increase exclusive breastfeeding rates (2005). However, this study consists of retrospective data which can hide unknown biases and confounding variables that could influence infant feeding behaviour or maternal decisions.

More recently, Jordan, Emery, Watkins, Evans, Storey, and Morgan (2009), conducted a retrospective cohort study involving 48,366 women in the UK. This research analysed the association of routine drugs given in labour, with breastfeeding rates at 48 hours post birth. Lower breastfeeding rates were associated with various routine labour drugs including epidural analgesia ( $p < 0.001$ ), uterotonics such as oxytocins ( $p = 0.004$ ) and ergometrine ( $p = 0.002$ ), and prostaglandins for induction of labour ( $p = 0.001$ ). At 48 hours, 43.3% of this cohort of women was not breastfeeding. However, the researchers recommended further exploration of these associations, including exploration of the dose-response

relationship found previously in Jordan et al's (2005) study. Once again, this was retrospective data that can be prone to confounding variables. The need for further research into the effect of intrapartum analgesia on infant feeding has been included in intrapartum clinical guidelines recommended by the National Institute for Health and Clinical Excellence UK (NICE) in 2007, based in part on the authors' identification of the dose-response relationship between epidural Fentanyl and absence of breastfeeding (Jordan et al.). The NICE guidelines also state,

Modern epidural solutions contain opioids and, whatever the route of administration, all opioids cross the placenta and in larger doses (greater than 100 micrograms in total) may cause short-term respiratory depression in the baby and make the baby drowsy (NICE, 2007, p 21).

According to a survey involving 422 women following caesarean sections in London, the most common reasons for giving up breastfeeding were difficulty with attachment, insufficient milk, pain, and lack of support at initiation (Baxter, 2006). Of concern, was the high number of formula supplements given to breastfeeding babies, which would have contributed to shorter breastfeeding duration rates (Baxter, 2006; Scott et al., 2006).

Additionally, in 2009 Baxter et al. found in a large prospective cohort (n=4679) from the Longitudinal Study of Australian Children 2003-2004, that caesarean birth was a major factor associated with a transition to complementary feeding in the first four weeks postnatally. This study found that infants born by caesarean section, infants of primiparous women, multiple births, and those admitted to neonatal intensive care, may be offered formula soon after birth as part of postnatal care (Baxter, Cooklin, & Smith, 2009). Thus it will be important in the proposed research to explore the propensity for change to formula feeding after caesarean section.

Epidural analgesia, according to meta-analyses by Lieberman and O'Donoghue (2002) and Leighton and Halpern (2002), also prolongs second stage labour, increases the possibility of instrumental delivery, and increases the risk of maternal fever. These indirect effects may interfere with the establishment of breastfeeding, and also explain the increased use of bottle supplements (Nommsen-Rivers, 2003; Klein, 2006).

The increased incidence of formula supplementation of breastfed babies after caesarean section is a disturbing finding from the literature examined. Therefore, it will be important to evaluate supplementation in terms of whether it is associated with breastfeeding difficulty following a caesarean section. In summary, not only does the research suggest that caesarean delivery and regional analgesia and anaesthesia are associated with lower breastfeeding rates, but they are also associated with decreased breastfeeding exclusivity and delayed onset of breastfeeding.

### **Regional analgesia and exogenous and endogenous oxytocins**

The notion that epidural analgesia interferes with the release of endogenous oxytocins and the reduced levels may contribute to delayed onset of breastfeeding was proposed by Wiklund, Norman, Uvnas-Moberg, Ransjo-Arvidson, and Andolf (2009) and Jonas, Johansson, Nissen, Ejdeback, Ransjo-Arvidson, & Uvnas-Moberg (2009). Wiklund et al. conducted a retrospective comparative study to compare the early breastfeeding behaviours of full term newborns of 351 mothers who had received epidural analgesia (regional anaesthetic plus a narcotic) in labour with an equal number of newborns whose mothers had not had epidural pain relief. Statistically fewer babies of the epidural analgesia group breastfed within the first four hours of life. These babies were more likely to have had a formula supplement and fewer were fully breastfed at discharge. There was also a correlation between epidural administration and increased oxytocin administration, postulated to be because of the lower plasma levels of oxytocins (Wiklund et al.). Epidural analgesia is thought to inhibit nerve impulses which mediate the release of oxytocin during labour stimulated by the pressure of the baby's head on the cervix. The investigators proposed that epidural analgesia interferes with endogenous oxytocin release and this could contribute to delayed breastfeeding onset (Wiklund et al.). The findings from this study, although retrospective and therefore subject to unknown bias and confounders, are important and deserving further exploration.

The effects of intrapartum oxytocin administration and epidural analgesia on the concentration of plasma oxytocin and prolactin in response to breastfeeding during the second day postpartum have also been examined. Endogenous oxytocin stimulates the milk ejection reflex causing release of prolactin which stimulates milk

production. Oxytocin also stimulates maternal behaviour and bonding. A descriptive comparative study separated 63 mothers into five groups; those who received oxytocin intravenously during labour, those who received oxytocins intramuscularly after birth, those who received epidural analgesia (regional anaesthetic plus a narcotic) in addition to oxytocin infusion, those who received epidural analgesia without oxytocin infusion, and a control group who received none of these treatments (Jonas et al., 2009). This study found that women who had received epidural analgesia with oxytocin infusion had the lowest endogenous oxytocin levels and this decrease was dose-dependent, suggesting a negative feedback mechanism. The effect of the medication was sustained for at least two days after birth. Therefore, Jonas et al.'s findings correlate with Wiklund et al.'s (2009) whereby they claim that epidural analgesia combined with oxytocin infusion decreases endogenous oxytocins which may contribute to delayed onset of breastfeeding. This finding is of significance to the proposed study of exploring difficulty breastfeeding after caesarean section, whereby women had regional anaesthesia as well as oxytocin infusion intrapartum and postoperatively for prevention of postpartum haemorrhage.

### **Regional analgesia, anaesthesia and infant neurobehaviours**

Regional anaesthesia has also been explored in terms of the effects on newborn feeding behaviours (Baumgarder, Muehl, Fischer, & Pribbenow, 2002; Radzysinski, 2002). Baumgarder et al. studied 115 mothers who had vaginal births under epidural anaesthesia, and 116 control mothers who did not have epidurals. The outcome of two successful breastfeeds within the first 24 hours was achieved by 69.6% of the epidural exposed group of mothers (n=115), compared to 81.0% of those in the control group (n=116). This demonstrated a difficulty with breastfeeding that was statistically greater ( $p=0.04$ ) in the epidural exposed group. A secondary outcome was significantly increased bottle supplements with the epidural exposed group compared to the control group ( $p<0.01$ ) (Baumgarder et al.). This study however lacks information on type or dosage of epidural analgesia or length of labour.

Radzysinski (2002) examined a small cohort of 56 breastfeeding multiparous women who had vaginal births. Within this cohort, one group of 28 mothers had received epidural analgesia, and the remainder received no pain medication in labour. Radzysinski claimed that epidural analgesia was a potential barrier to

breastfeeding, because narcotics are used in combination with local anaesthetics to reduce pain. This drug combination is thought to cross the placenta and depress important neonatal reflexes needed for breastfeeding including rooting, sucking and swallowing. Newborn tone can be depressed affecting the baby's ability to latch and remain latched. The newborns were observed for rooting, latching, sucking, swallowing, activity state and neurobehaviour, at one hour and at 24 hours of age. Cord blood was analysed for drug concentration levels at birth. This study did not find any measurable differences in the breastfeeding behaviours of the two groups of newborns. However, the findings did demonstrate a relationship between epidural analgesia and decreased neurobehaviours of primary reflexes and adaptive reflexes post birth. Moreover, the author declared that the amount of drug used for this study population was very low, compared with standard infusions used. Further, Radzyminski also suggests that if a mother believes that the decisions she made on pain relief in labour are negatively affecting her baby, it may increase anxiety which could affect her ability to breastfeed (Radzyminski). This study would benefit by being repeated with a larger sample and with dosages of medication that are more indicative of common usage.

In conjunction with this study Radzyminski (2005) investigated whether central nervous system functioning had an effect on the infant's ability to breastfeed in the first day following birth. Examining the same cohort of women and babies, infants were placed skin to skin and data collected. It was found that the higher the newborn scores in neurobehavioral functioning, the higher the newborn scores on breastfeeding behaviours. Awake and alert babies breastfed more effectively. However, there were no significant findings between Fentanyl or Bupivacaine levels and neurobehavioural or breastfeeding behaviour scores (Radzyminski). This study would have also benefited by using a larger sample with stronger drug concentrations to detect possible effects of epidural analgesia on central nervous system functioning.

Additionally, maternal analgesia in labour and the disturbance of newborn behaviour, breastfeeding, temperature and crying was explored by Ransjo-Arvidson, Matthiesen, Lilja, Nissen, Widstrom and Uvnas-Moberg (2001). Video recordings were made of 28 newborns placed skin to skin directly after birth. Defined infant behaviours were assessed and analysed blindly with respect to type of maternal



analgesia in labour. This varied from nil in one group, pudendal block in the second group, and intramuscular Pethidine or Bupivacaine via epidural or a combination of analgesia in the third group. The third group of infants made less spontaneous breast seeking ( $p<0.01$ ) and breastfeeding behaviours ( $p<0.01$ ), had higher temperatures ( $p=0.03$ ), and cried more often ( $p=0.05$ ) (Ransjo-Arvidsen et al.). This well designed study effectively demonstrated that maternal analgesia in labour can disturb and negatively affect the newborns instinctive breastfeeding behaviour. However, it is weakened by the fact that the strongest relationship was seen in the group that had a combination of different analgesia, making it hard to establish a definitive relationship with one particular form of analgesia.

Findings from a number of studies conclude that infants whose mothers received analgesia in labour display less massaging hand movements of the breast and other pre-feeding behaviours; and less suckling than those who did not receive analgesia (Ransjo-Arvidson et al., 2001; Kruse, Denk, Feldman-Winter & Rotondo, 2005). These studies indicated that maternal analgesia during labour might disturb and delay important aspects of the interaction between mother and baby, in addition to increased skin temperature and crying. In particular, crying was more common in the infants whose mothers had received analgesia (Ransjo-Arvidsen et al.). However, Kruse et al. also claim that there is a crucial window of opportunity immediately after birth when suckling should begin. If missed, the probability of exclusive breastfeeding at discharge is reduced.

Finally, Klaus and Klaus (2010) in their review of the literature in a re-evaluation of maternity care report for the Academy of Breastfeeding Medicine assert that the drugs used in an epidural cross the placenta into the infant and have a longer half life in the infant than in the mother. Infants born whose mothers had an epidural are less alert in the first hour after birth, remain sleepy, have trouble latching on, cry, and are more irritable for the first one to three weeks of life (Klaus & Klaus). Moreover, Howie and McMullen's (2006) review of the literature state that side effects associated with the use of Fentanyl have been reported in infants younger than six months of age, and include sedation and lethargy. They recommend administering the lowest possible dose to the mother to minimise exposure to the infant. Furthermore, Howie et al. suggest that mothers should be given appropriate information and determine the risks and benefits of any drug before it is

administered. This raises the question of whether women really understand the impact of epidural medications.

The studies mentioned above that examined the effects of regional anaesthesia on infant neurobehaviour are pertinent to the proposed study on the experience of women having difficulty breastfeeding babies who are sleepy after caesarean birth. If babies are too sleepy or lethargic to latch to the breast, mothers will have difficulty initiating and maintaining breastfeeding, leading to shorter breastfeeding duration. Hence, this supports the relevance of the proposed research.

### **Caesarean Section and Breastfeeding Initiation and Duration**

The effect of mode of birth and timing of breastfeeding initiation on breastfeeding outcomes was explored in studies by Chien and Tai (2007) and Patel, Liebling and Murphy (2003). Chien and Tai (2007) in a large study of 2,064 participants found that women who had a caesarean birth had a lower rate of exclusive breastfeeding than those who had an unassisted vaginal birth. Women who had a vaginal birth had the highest breastfeeding rates after birth and at one month and three months. Timing of breastfeeding initiation within 30 minutes of birth was 60% lower in the caesarean group than for the unassisted and assisted vaginal birth groups. Further, women who delivered by caesarean had lower odds of breastfeeding at one month (OR= 0.69) and three months (OR= 0.70). The study was somewhat weakened by the delay of one month before survey, therefore having to rely on maternal recall of birth details and breastfeeding initiation. Patel et al. (2003) examined breastfeeding success after instrumental vaginal birth or caesarean section at full dilatation, of a prospective cohort of 393 women. No significant differences in rates or duration of exclusive breastfeeding were found between groups (Patel et al.). This study however, did not specify time after birth to initiation of breastfeeding, nor was there a comparison group of women who had a vaginal birth, which would have added strength to the study.

Another significant finding is that women who delivered by caesarean section can experience a significant delay in initiating breastfeeding compared with women giving birth vaginally, with or without instrumental assistance (Rowe-Murray & Fisher, 2002). Rowe-Murray & Fisher's prospective study of 203 primiparous women, compared those who birthed vaginally ( $p=106$ ), with women who had instrumental

vaginal births ( $p=49$ ) and caesarean sections ( $p=48$ ). Of the caesarean sections, 19 were elective and 29 emergency, with 45 performed under regional anaesthesia and three under general anaesthetic. The study found that time to initiation of breastfeeding after birth was shortest for women having vaginal births and longest for caesarean section. However, there were no significant differences in breastfeeding rates at eight months postpartum (Rowe-Murray & Fisher). Differences in outcomes between studies could be related to the inclusion of elective and emergency caesarean sections in Rowe-Murray et al.'s study, in contrast with Patel's (2003) study of only emergency caesarean sections in second stage where women had been through the first stage of labour.

The effects of regional analgesia on breastfeeding success and duration were studied in an Australian RCT by Henderson, Dickinson, Evans, McDonald and Paech (2003). These researchers studied 992 primiparous women whereby 493 received patient controlled epidural analgesia in labour, and 499 received continuous midwifery support. The latter group used non-pharmacological methods of pain relief, nitrous oxide inhalation, or intramuscular pethidine injections. There was a high cross-over rate of 43.4% to the epidural group therefore the analysis was conducted as a prospective observational study. Questionnaires were completed on recruitment, following birth, and at two and six months postpartum. Breastfeeding duration was significantly longer in women who did not receive any analgesia, shorter for women who received Pethidine, and shortest in women who received an epidural. Of note, there was also a significant association between time of first breastfeed and mode of birth, with only 22.0% of women who birthed by caesarean section breastfeeding within the first hour of birth, compared with 56% of women with spontaneous vaginal births (Henderson et al.). This was similar to the findings of Rowe-Murray and Fisher (2002). The findings by Henderson et al. were limited however, by the high cross-over rate and the selection of only primiparas. Of note, these findings may not correlate to multiparous women.

Riordan et al.'s (2000) prospective multi-site study in the United States examined the effect of labour pain relief medication on neonatal suckling and breastfeeding duration. Of the sample of mothers 29.0% ( $p=129$ ), had an unmedicated vaginal birth, and 71.0% had either epidural or intravenous narcotic medication or both. The study confirmed that intravenous analgesia diminished neonatal suckling after birth.

It also confirmed that the effect of epidural analgesia on suckling is similar to that of narcotics given intravenously (Riordan et al.). Further, Riordan et al. warn that these effects on suckling may cause mothers to become discouraged, and that babies who are not breastfeeding effectively are at risk for dehydration, jaundice and poor weight gain. The researchers suggest that if epidural analgesia is given, the best choice would be a local anaesthetic without a narcotic (Riordan et al.). This study was limited by not including other factors that may play a role in neonatal suckling, such as the use of oxytocin, vacuum delivery, forceps and oral suctioning. Participants were not randomly assigned to the different groups as this was not ethically possible.

More recently, a large prospective large cohort study of 2,137 women was undertaken by Zanardo et al. (2010) to examine the effect of caesarean delivery on breastfeeding. Women were followed up with questionnaires on breastfeeding outcomes at seven days, three and six months postpartum. As found in the previous studies examined, breastfeeding prevalence was higher after vaginal birth and a longer interval occurred to first breastfeed in those newborns delivered by caesarean section. No difference was found in breastfeeding rates between emergency and elective caesarean deliveries. However, vaginal birth was associated with a higher breastfeeding rate at discharge and at all of the follow up stages of data collection (Zanardo et al.). Details of postnatal assistance, level of fatigue and pain and complications in caesarean deliveries were not examined, which could have been factors in the results and thus limited the study.

Zanardo et al.'s. (2010) findings correlated with research by Hauck, Fenwick, Dhaliwal, and Butta (2011). Hauck et al. conducted a cross sectional survey to examine infant feeding practices during the early weeks post birth in a large cohort of 2,669 Western Australian women. The investigators found significant predictors of early breastfeeding cessation included caesarean birth and the offering of formula to breastfed infants in hospital. Their findings suggested the time period of greatest risk for early cessation was within the first three weeks postpartum. The authors warned against practices that compromise breastfeeding outcomes, such as separation of mother and infant after birth, particularly prevalent in caesarean deliveries, and offering formula to breastfed babies without medical reason (Hauck et al.).

In summary, the literature supports the concept that caesarean section and regional anaesthesia are associated with delayed breastfeeding initiation, decreased skin to skin contact, decreased exclusive breastfeeding, and early breastfeeding cessation. What is difficult to determine is how individual factors such as Fentanyl administration, regional anaesthesia, and caesarean section contribute to breastfeeding difficulty.

### **Caesarean Section and Skin to Skin Contact**

Skin to skin is defined as placing the naked baby prone on the mother's bare chest immediately after birth, drying the infant and covering him or her across the back with a warm blanket and the head with a dry cap (Moore & Anderson, 2007). The close contact promotes inherent neurobehaviours ensuring biological needs are met. This early contact represents "a sensitive period for programming future behaviour" (Moore, Anderson, & Bergman, 2007). Skin to skin contact promotes innate behaviours and maternal oxytocin release. The infant localises the nipple by smell and will self-latch, which leads to more effective breastfeeding, increased milk production, and infant weight gain. Skin to skin contact has a significant positive effect on breastfeeding initiation and duration, anxiety, and maternal confidence (Moore et al., 2007; McFadden, Baker & Lavender, 2009). Further, a Cochrane review in 2007, involving thirty studies, showed that skin to skin contact after birth can benefit breastfeeding outcomes, early mother infant attachment, decrease infant crying, and increase cardio-respiratory stability (Moore et al.). Furthermore, infant crying is a way of communicating different feelings, such as hunger, pain, and distress. Research by Christensson, Cabrera, Christensson, Uvnas-Moberg and Winberg (1995), found that when infants are separated from their mothers they give a "separation distress call" which is crying that appears in short pulses but is kept up for a long time. This call instinctively tells mothers to provide protective care for their infant which includes skin to skin contact (Christensson et al.).

Researchers have also found that skin to skin contact is an important means for the baby to massage the breast and provide familiarisation with the breast before latching on and sucking and that this also stimulates maternal oxytocin release (Rowe-Murray & Fisher, 2002; Dabrowski, 2007). Moreover, Rowe-Murray and Fisher and Dabrowski, claim caesarean delivery is a significant barrier to early

initiation of breastfeeding (Rowe-Murray & Fisher, 2002; Dabrowski, 2007).

Therefore, hospitals need to have a culture of breastfeeding support, and a goal of achieving Baby-friendly practices, with education of all staff in promoting early breastfeeding initiation (Rowe-Murray & Fisher). The results of this study add weight to the concern about high caesarean rates in Australia and other developed countries, and stress the importance of skin to skin contact after birth. Furthermore, there remains a clear need to further explore caesarean birth and the incidence of skin to skin contact in practice, such as will occur with the proposed study.

### **Caesarean Section, Regional Anaesthesia and Breastmilk Transfer**

Another notable effect of caesarean section birth on breastfeeding is the impact on breast milk transfer to the term newborn over the first week of life (Evans et al., 2003). Evans et al.'s comparative study included 88 mothers who had a normal vaginal birth without regional anaesthesia and 97 mothers who had a caesarean section with regional anaesthesia. The study involved recording the volume of milk transferred at each feed by weighing the babies before and after feeds. Results showed that the volume of breastmilk transferred to infants born by caesarean section was less than that transferred to infants born by normal vaginal birth over the first six days of life. The study also highlighted a significant delay in initiating the first skin to skin contact and suckling in the caesarean section group. Furthermore, this research showed the report of breast milk volumes taken by the well term infant over this time period to be much less than artificial feeding regimes recommend, and disputes these volumes prescribed for newborn infants (Evans et al.). Decreased milk transfer for babies born by caesarean section is a significant finding and can lead to poor weight gain, formula supplementation, perceived low milk supply and may result in early breastfeeding cessation. These factors are of significance to the current study which explores the breastfeeding difficulty of women after caesarean section under regional anaesthesia whereby delayed suckling can be a factor.

### **Delayed Onset of Lactation, Perceived Low Milk Supply and Postnatal Care**

The effects and risks associated with regional analgesia for pain relief in labour and childbirth has been broadly researched (Dennis, 2001; Dewey, Nommsen-Rivers, Heinig, & Cohen, 2003; Nystedt et al., 2003). For example, Dewey et al.'s (2003) research examined the risk factors for suboptimal breastfeeding behaviour, delayed

onset of lactation, and excess neonatal weight loss. A cohort of 280 women in the United States were studied with data collected daily while in hospital, by phone on day five and at home visits on day seven and day fourteen. This included breastfeeding assessments, baby weight, and supplements given. The results of the study showed that high risk groups for breastfeeding difficulties included women who have a long labour or deliver by caesarean section, women who received labour medications and infants with suboptimal breastfeeding behaviour during the first 24 hours. These findings imply that modifying the labour and delivery to reduce duration and increase the likelihood of a spontaneous, drug free vaginal birth, should improve early breastfeeding success. The authors noted that stress causes higher cortisol levels in both the mother and infant, which have been linked to delayed onset of lactation. The authors also noted the correlation between intravenous fluids in labour, more common in epidurals and induction of labour, and increased fluid load of infants, leading to greater iatrogenic weight loss. Finally, Dewey et al. recommended that women with delayed onset of lactation should be followed up after hospital discharge, because this factor can lead to excessive infant weight loss and is linked with shorter breastfeeding duration. A shortcoming of the study was insufficient information on the timing and dosage of labour medications used, creating difficulty in determining which medications were responsible for the association with excessive infant weight loss.

However, in relation to the literature review by Dennis (2001), and the systematic review by Nystedt et al. (2003), there were conflicting reports of unintended effects on the mother, baby, and labour process, along with conflicting outcomes as to whether epidurals impaired breastfeeding post birth and after discharge. Thus, further research was recommended to fully understand the effects of this form of analgesia in childbirth. The literature however would appear to suggest that regional analgesia, and caesarean section as mode of birth, is associated with delayed onset of lactation. Delayed initiation can lead to infant weight loss, increased formula supplementation, perceived or actual low milk supply and shorter breastfeeding duration.

Additionally, perceived inadequate milk supply was found to be highly determinant of early cessation of breastfeeding in the first six weeks after birth in a longitudinal

study of 365 Australian women by Cooke, Sheehan, and Schmied, (2003). The most frequent breastfeeding problems in this group surveyed at two weeks postpartum were sore nipples, poor attachment and low supply. The main reasons for weaning were perceived low supply and problems of pain and difficulty attaching the baby (Cooke et al.). Similarly, a study by Sheehan, Schmied, and Barclay (2009), found the first two to six weeks postpartum to be the most difficult time for breastfeeding, and identified a need for individualised care and positive support for breastfeeding women.

Further, perceived low milk supply in women who had a caesarean section in Taiwan was identified and found to be significant in women who experienced epidural anaesthesia, those who delayed initial breastfeeding or fed less frequently, and those who supplemented with formula (Lin, Lee, Yang, & Gau, 2011). Lin et al. recommended encouragement of early breastfeeding initiation and reduction of formula use for breastfed infants (Lin et al.). Therefore, Lin et al. and Cooke et al. purport that perceived low milk supply, of significance postnatally in caesarean delivery, is associated with increased formula supplementation and early cessation of breastfeeding.

Maternal dissatisfaction with postnatal care in hospitals was the background to a study by Schmied, Cooke, Gutwein, Steinlein, and Homer, (2008). These researchers identified strategies to improve postnatal care including providing one to one time with women each day to discuss concerns. Continuity of care, access to a lactation support midwife, and providing consistent information on baby care and breastfeeding issues, were considered important factors in providing quality postnatal care (Schmied et al.). Conflicting breastfeeding information has been highlighted as an important issue, in research by Baxter and Macfarlane (2005) and Backstrom, Wahn and Ekstrom, (2010). Further, in a qualitative study on satisfaction with caesarean section, it was found that women who had a caesarean birth were distressed by the lengthy and debilitating recovery period after the birth, separation from the baby, pain, immobility, difficulty bonding, and difficulty with baby care including breastfeeding (Porter, van Teijlingen, Yip, & Bhattacharya, 2007). Researchers recommend early detection and addressing of breastfeeding problems with the support of health professionals with appropriate knowledge and skills (Hauck, Fenwick, Dhaliwal, Butt & Schmied, 2011). Difficulties breastfeeding and



feelings of failure can also place women at higher risk of postnatal depression (Cooke et al., 2007; Watkins, Meltzer-Brody, Zolnoun & Stuebe, 2011).

## **CONCLUSION**

The available literature reveals that breastfeeding can be adversely affected by intrapartum analgesia, and regional anaesthesia, particularly with the addition of an opiate. Breastfeeding can also be adversely affected by caesarean section. Delayed initiation of breastfeeding or skin to skin stimulation, difficult or dysfunctional breastfeeding and delayed onset of lactation, are associated with increased formula supplementation, early cessation of breastfeeding and infant complications such as weight loss and dehydration. Epidural drugs are thought to accumulate in the placenta and fetal brain, which has a lingering influence on the baby's sympathetic nervous system activity for up to two days post birth. Mothers of babies with low breastfeeding behaviour scores in the first two days of life are more likely to wean earlier. This review of the literature found a growing body of studies related to the effects of regional anaesthesia or analgesia on breastfeeding initiation and duration, infant neurobehaviour, endogenous oxytocin, and exclusive breastfeeding. There was also an abundance of literature relating to caesarean section and related effects on breastfeeding initiation and duration, reduced skin to skin contact, decreased breastmilk transfer, increased formula supplementation, and difficulties with postnatal care. The multiple factors associated with this phenomenon and diversity in studies makes metaanalysis very difficult.

This review of the literature has found a gap in the research relating to breastfeeding difficulty after caesarean section. In particular, there is no qualitative data surrounding what this means to a mother and her breastfeeding experience in the context of birth and the postnatal period. Therefore, the proposed study can lead to a greater understanding of this issue for the purpose of optimising breastfeeding initiation and duration rates, which is an important public health initiative worldwide. The following chapter describes the research methodology used to explore the experience of women with breastfeeding problems following a caesarean section under regional anaesthesia, the research design employed for this study and relevant ethical considerations.

## **CHAPTER THREE**

### **DESIGN OF THE STUDY**

#### **INTRODUCTION**

The aim of the study is to explore the lived experience of a group of women having difficulty breastfeeding their sleepy baby after having birthed by caesarean section under regional anaesthesia. Further, this research aims to explore the difficulties women experienced initiating and establishing breastfeeding when their babies seemed indifferent or unable to latch to the breast. Chapter 3 describes the research methodology used to explore these experiences. Interpretive phenomenology was chosen for this study because this method enables rich descriptive data to emerge from the research participants' account of their lived experience. Moreover, phenomenology permits the participants lived experience to be interpreted and understood. Included in this chapter is an overview of the history of phenomenology, a discussion of the relevance of phenomenology to nursing and midwifery and specific details surrounding the research design employed for this study.

#### **METHODOLOGY**

##### **The History of Phenomenology**

Phenomenology emerged from the work of Edmund Husserl (1859-1938) who viewed the individual person as the originator of meaning and the central point for social analysis. Husserl explored the difference between 'facts' and 'essences'. However, Husserl's perspective was later further developed by Jean-Paul Sartre, Maurice Merleau-Ponty, Martin Heidegger and Hans George Gadamer (Holloway & Wheeler, 1996).

The term phenomenology has been used in many disciplines including religion, philosophy, and physics. It is derived from the Greek word *phainomenon*, meaning "that which appears" (Dowling, 2007, p132). It was first used in a scientific context by

Immanuel Kant in 1786, who described phenomenology as the study of phenomena, the appearance of things (Cohen, 1987). The history of phenomenology can be divided into four chronological phases termed, the Preparatory Phase, the German phase, the French phase, and the Recent Phase.

### **The Preparatory Phase**

Franz Brentano (1838-1917) and Carl Stumpf (1848-1936) were associated with the preparatory phase. Brentano sought to make psychology scientific, using descriptive psychology as its basis to describe and clarify before undertaking studies (Cohen, 1987). Further, Brentano was the first person to discuss *inner perception* as being valuable, and intentionality as a concept, implying that all perceptions have meaning (Dowling, 2007). *Inner perception* is the notion that everything we consciously think relates to an object (Dowling, 2007). Stumpf, Brentano's student, later founded experimental phenomenology, whereby knowledge is sourced from the analysis of empirical material (Cohen, 1987). Stumpf's lasting accomplishment in regard to phenomenology was demonstrating the scientific rigor of phenomenology (Cohen, 1987).

### **The German Phase**

The second phase of the Phenomenological movement was the German phase, dominated by Edmund Husserl (1859-1938) and Martin Heidegger (1889-1976). The attraction of phenomenology for Husserl was its possibilities as a new science of being (Paley, 1997). As such, Husserl's main focus was the study of phenomena as they appeared consciously (Lavery, 2003). Husserl's belief was that individuals often do not take into account, or notice, what is ordinary in everyday living. Therefore, phenomenological enquiry helps examine and recognise the lived experience that is commonly taken for granted (Speziale & Carpenter, 2007). Additionally, Koch (1995) proposes that Husserl, building on the work of Brentano, believed *intentionality* and *essences* was the key to our understanding of phenomenology. By intentionally focusing on the object, one could describe the essences that made it identifiable as a particular object or experience (Koch, 1995). The term essence is derived from the Greek word *ousia*, which means the inner essential nature of something (van Manen, 1997, p 177). Further, Husserl developed the idea of phenomenological intuition and reduction (Holloway & Wheeler, 1996).

The notion is that employing reduction, or bracketing of individual biases, could enable one to see the object clearly, through intuition or intuitive seeing (Lavery).

Husserl's assistant, Heidegger was an established scholar in the field of theology (Lavery, 2003). For decades, Heidegger saw phenomenology as a new means for a solution to understanding the world and human experience within it, and his philosophy was mainly concerned with 'being' and with 'time' (Cohen, 1987).

Heidegger believed that a person has a world which evolves from culture, history and language, a sense of being, whereby things have value and significance, are self interpreting, embodied, and "is" in time (Holloway & Wheeler, 1996). This means that a person's sense of being or self understanding evolves from their world that they live in. *Being* is the most universal concept of Heidegger's phenomenology. The *being* is the nature or meaning of the phenomenon and lived time is subjective time rather than chronologically measured or objective time (van Manen, 1997, p 175). Lived time is also a temporal way of being in the world, such as an old person recollecting the past or a young person oriented to their future (van Manen, p104). Heidegger is also attributed with the development of phenomenology into interpretive or hermeneutical methods of enquiry (Holloway & Wheeler). An example of Heideggerian perspective regarding a question would be "what is the meaning of being human in this experience?" (Munhall, 2007, p175).

Heidegger believed that understanding is connected to forestructures, or background and experiences, including one's history that cannot be disregarded. These influences on interpretation therefore need to be accounted for. Furthermore, this interpretive process is achieved through the hermeneutic circle, which moves from the parts of experience to the whole of the experience and back and forth again and again to increase the engagement with experience through the text; and therefore the understanding of the phenomenon (Lavery, 2003).

Husserl had recommended Heidegger as his successor, but the two lost all contact after Husserl retired, due mainly to philosophical differences and Heidegger's involvement with the Nazi regime (Cohen, 1987). However, Heidegger continued to develop through his students such as Hans Georg-Gadamer (1900-2002). Gadamer developed philosophical hermeneutics which aimed to understand the conditions that make truth possible. Like Heidegger, Gadamer believed that understanding occurred

through interpretation. Further, Gadamer asserted that language was the universal medium through which understanding and interpretation occurred. Gadamer also believed bracketing was impossible; and that prior knowledge or historicity of understanding would always involve some prejudice (Lavery, 2003). Furthermore, Gadamer believed in the concepts of 'prejudgement' and 'universality'. Prejudgement referred to the prejudice or preconceptions, or 'horizon of meaning' that is essential to our linguistic experience. Universality describes the connection between persons expressing themselves and persons who seek to understand them (Earle, 2010). Finally, both Heidegger and Gadamer supported the need for a hermeneutic circle, but it was Gadamer who further suggested and wrote about the dialogue that occurs within the hermeneutic circle to result in a 'fusion of horizons' between the interpreter and the phenomenon (Dowling, 2007). Thus, Gadamer is better known for the 'hermeneutic circle' even though Heidegger continued to provide inspiration for the later French phenomenologists (Cohen, 1987).

### **The French Phase**

The French phase occurred during the years after World War II where phenomenology dominated philosophy in France. The key figures associated with French phenomenology were Gabriel Marcel (1889-1973), Jean-Paul Sartre (1905-1980) and Maurice Merleau-Ponty (1908-1961). Marcel viewed phenomenology as an introduction to the analysis of *being*. Sartre, a novelist, philosopher, and political figure, used phenomenology as a tool for ontological existentialism (Cohen, 1987). This is the study of existence, in particular believing that human beings create their own values and determine meaning to their life. Furthermore, Sartre was more interested in the practice of phenomenology rather than its theory and often quoted "existence precedes essence". Sartre's goal was to understand because "to understand is to change, to go beyond oneself" (Cohen, 1987, p31).

Merleau-Ponty, worked with Sartre until the 1950's when they disagreed about Sartre's pro-communist stance. Merleau-Ponty contrasted examining perception using phenomenology against a positivistic approach, and showed how the phenomenological approach added important insights (Cohen, 1987). However, while the French remained immersed in exploring phenomenology development of the Recent Phase was also evolving.

## **The Recent Phase**

The Recent phase is the continuation of phenomenology as a method of enquiry outside of Europe, mainly in North America. For instance, two scholars in New York, Schutz (1899-1959) and Gurwitsch (1901-1973) used phenomenology in their philosophy. American phenomenology differed in that it evolved to enable the exploration of the experience independently of the traditional philosophy.

Furthermore, the notion was to focus on describing participants situated experiences within the context of their culture, rather than looking for the universal meaning of experiences (Silverman, 1987). American phenomenology advanced into having a human science perspective, separating individual experience from the nature of the phenomena itself (Dowling, 2007). Additionally, frameworks for phenomenological research and analysis were developed by Colaizzi (1978), Giorgi (1985) and van Manen (1990). Over time, these have been used to support and guide other phenomenological research in many of the social and health care disciplines (Dowling).

This new perspective surrounding phenomenology began to be referred to as a North American development and it was slow to receive acceptance (Crotty, 1998). Crotty asserts that “its fruit embodies the American intellectual tradition far more than any features of its parent plant” (Crotty, 1998, p84). By this Crotty means that the new phenomenology was very different to the original European school of thought. Crotty states that although the same terms are used, such as phenomenon, reduction, and intentionality, their meanings were altered. Further, Crotty argues that researchers must explore their own experience, not the experience of others, taking that step ‘back to the things themselves’ and not through someone else. Crotty also claims the objectiveness and critical nature of phenomenology was lost (Crotty, 1998). Interestingly, Crotty is particularly critical of nurse researchers who he says have adopted a hybrid form of phenomenology that has developed around them and “appears to serve their purposes well” (Crotty, 1996, p.24).

A different viewpoint to Crotty was outlined by Caelli (2000) who believes that changes to the European methodology may have resulted because it was being used for research and not for philosophical reflection. Caelli states that “thoughtful, reflective and previously interpreted descriptions of experience given by research

participants provide a broader canvas on which to paint a description of a phenomenon than is provided by traditional phenomenology alone” (Caelli, p. 373). Moreover, contrary to Crotty, Caelli purports that both the traditional European and the new American approaches to phenomenology are of benefit to nursing. The American approach addresses the needs of nursing as a human science where understanding the human condition rather than phenomena itself is a priority (Caelli).

## **Nursing and Phenomenology**

For decades, nursing research has been dominated by positivism, a medical approach. Nightingale style nurses arrived in Australia in 1871, and Melbourne hospitals began training nurses in this English approach. Surgery under anaesthetics, drugs, vaccines, and antiseptics were developed, and doctors rose in power and status. Medical dominance and the Nightingale philosophy of subservience meant nurses became the doctor’s assistants or in the research area the data collectors (Barclay, 2008). Florence Nightingale was however an accomplished researcher herself and her research on infection in the Crimean War provided proof of the effectiveness of good hygiene in wound healing (Pavlac, 2005). Nursing research is less mature than that of other disciplines, such as medical and biomedical sciences, which have established research programs, experienced colleagues with political influence and government funding support, and a team based research culture (Fahy, 2005).

Nursing is described by Beck (1994) as having a philosophy that is holistic and interactive and an epistemology that is knowledge based on the experience of human persons. Clinical nursing involves observation, interpersonal relationships, interviewing people, and interacting with them as part of nursing practice. Koch (1995) likens these skills to that required by phenomenological researchers, making phenomenology a good match with nursing. Koch (1995) explored how the nursing process can be extended by nurse researchers asking patients to describe their experiences, which become phenomena for investigation to facilitate understanding of the lived experience. Additionally, the search to understand the meaning of the illness experience in nursing aligns well with phenomenology. Similarly the nurse client relationship is a social one; therefore phenomenology can increase nurses’ understanding of people by exploring their world (Beck, 1994).

A number of nursing scholars are noted for their research in phenomenology and their significant contributions to the development of nursing knowledge. For example, Patricia Benner (1984) used interpretive phenomenology to develop a classification system for nursing roles. Benner's work outlining the stages that novice nurses go through to develop expert nursing knowledge and clinical competence is highly regarded (Earle, 2010). Additionally, Rosemarie Rizzo Parse (1998) developed the theory "human becoming" using features from the philosophy of Heidegger and Gadamer. This theory has been used as the foundation by other researchers for studying universal lived experiences such as aging and grieving (Earle).

Nursing has however, been criticised for its use of phenomenology in research. For instance, Crotty (1996) examined North American nurse researchers' phenomenological research and found it to be descriptive and lacking the critical style of phenomenology in the European tradition. Moreover, Thomas (2005) claimed that nurse researchers focus on procedure and methods rather than the underlying philosophical basis of phenomenology. Paley (1997) is another critic of nursing's use of phenomenology and perceives that nurse researchers have misunderstood the central ideas of phenomenological reduction, phenomena, and essence. Further, Paley asserts that lived experience research has betrayed Husserl and Heidegger's phenomenology, and is Cartesian in style (Earle, 2010). Paley suggests that in nursing's lived experience research, there has developed a new Cartesian split between 'lived experience' and 'reality' which is a betrayal of Heidegger's philosophy (Paley, 1998). Cartesianism is the doctrine of French philosopher, Rene Descartes (1596-1650), whose followers view the mind as being wholly separate to the body. The Cartesian method focuses on studying a subject from a neutral and stringently objective stance (Sadala & Adorno, 2001).

Conversely, Earle (2010) proposed that the criticism of phenomenology in nursing could be unfair because the emphasis in research published in most research journals is on findings rather than methods. Therefore, one cannot assume that the researcher lacks this knowledge. Another perspective is afforded by Giorgi (2000) who claims that some human disciplines turn to phenomenology when seeking other ways of doing scientific research other than the established science paradigm, but ignore the fact that phenomenology is essentially a philosophy. Furthermore, Giorgi maintains that for phenomenology to be useful in nursing it must not remain just a



philosophy, it must be expressed as a human science, not as a subfield of philosophy. Giorgi therefore disagrees with Crotty claiming Crotty's critique of nursing research looks at the researchers' work too literally rather than looking at their implied intentions (Giorgi). Meanwhile, Caelli (2000) contends that examining the phenomena allows an understanding of others as they experience a life event within the context of their own particular culture and thus is of great value to nursing (Caelli).

Thus, the origin of phenomenology as a method for conducting nursing research, despite being contentious, continues to evolve. Additionally, phenomenology is especially valuable in the implementation of holistic, empathic and individualised nursing care, and in the development of nursing theory and knowledge (Earle, 2010). The ongoing debate and critical examination of the use of phenomenology contributes to the rigor and validity of its use as a qualitative methodology in nursing. Despite the controversy, the belief is that phenomenology is a well respected qualitative methodology and is highly valuable to nursing research and more recently, to midwifery.

### **Phenomenology and Midwifery**

The term midwife means "with woman" and the experience of giving birth oneself was considered sufficient qualification to assist another woman in birth in colonial Australia. In the early 1800's midwives were well respected members of the community but many women could not afford their services. Australia's first *lying-in* hospitals were asylums that housed and employed female convicts. After 1850, hospitals began to train doctors, nurses, and 'ladies monthly nurses' who became known as midwives who assisted at most births at that time (Barclay, 2008). With the arrival of the Nightingale style nursing training, came the gradual departure of midwives who helped women to birth at home. By 1899, only general trained nurses could train to become midwives to be able to be employed in hospital midwifery departments. Doctors' status in the community rose, and midwives became obstetric nurses who were subject to medical and nursing control. After World War 1, many women birthed in hospital, ensuring they had food and shelter during the Depression years. By 1972 the number of independent midwife practitioners had decreased

dramatically. However, in recent times a major change is in progress with increasing consumer demand for home birth, birth centre, and midwifery care (Barclay).

Midwives have a unique shared relationship with women they care for during pregnancy, labour, birth, and the postnatal period. Midwifery care is a close and sensitive relationship, extending often beyond professionalism. Fahy (2005, p8) describes midwifery as “a broad church”, with many midwives seeing their practice as emotional, spiritual and intuitive, and aligned with the arts. Still others focus on the physiological and pharmacological aspects of practice, as more of a scientific discipline. Most midwives claim that midwifery is both an art and a science, but have difficulty accepting it as a science because they fear losing the skill of intuitive midwifery practice (Fahy).

Similar to nursing, midwifery aligns well with phenomenological research. Key phenomenological concepts are shared by many aspects of midwifery practice, such as the sharing of birth stories. Phenomenology as a research method has the ability to provide insight into the experiences of women giving birth and then caring for their baby. Information gained through phenomenological research can enrich midwifery practice and make midwives more knowledgeable and empathetic practitioners (Snow, 2009).

A number of midwifery researchers have used phenomenology as the chosen methodology for their valuable and insightful research. These include Lundgren (2005), who examined women’s experiences of childbirth two years after birthing. Findings included empowerment, being both subject and object, and the importance of midwifery support and confidence in the woman’s ability to give birth. Thomson and Downe (2010) explored women’s experiences of a positive birth following a traumatic birth experience. Findings included changing the future to change the past, resolving the past and preparing for the unknown, being connected, being redeemed, and being transformed. Thomson further explored this phenomenon of traumatic birth by using Heideggerian concepts to describe how technological progress has led to an abandonment of *being* in childbirth (Thomson, 2011). However, of most relevance, women’s experiences of breastfeeding difficulties were explored in a noteworthy phenomenological study by Hauck, Langton and Coyle

(2002). Hauck et al's. research concluded that women breastfeeding encounter a path of determination, with

the premise of staying on the path and coming off the path.

Therefore, interpretive or hermeneutic phenomenology offers a methodology that is especially suited to exploring the experience of specific aspects of birth and motherhood. Interpretive phenomenology places an emphasis on textual forms as a way of exploring and interpreting experience (van Manen, 1997). Women explore, interpret and find meaning in the telling and writing of their birth stories (Bylund, 2005). The "with woman" definition of a midwife highlights the midwife's close relationship with the woman and therefore facilitates the phenomenological relationship. Further, the midwife's role as a woman's advocate implies empathy, intimacy, and trust, which are all essential components during phenomenological data collection (Cluett & Bluff, 2000).

### **Components of Phenomenology**

Phenomenological research centres on the desire to know the world in which we live through the study of lived experience. Phenomenology searches for the essences of the phenomenon experienced. It is the study of the individual's life world, as experienced rather than as conceptualised, categorised, or theorised, and aims for a deeper understanding of the meaning of everyday experiences (Munhall, 2007).

Phenomenology has been called "the science of examples" and examples permit the reader "to see" the deeper structure or significance of the experience being described (van Manen, 1997). Phenomenologists believe that important truths are to be found in peoples' lived experience, and are especially useful when a phenomenon has been poorly defined or conceptualised (Polit & Beck, 2004). This is because phenomenology offers thick description of the particular lived experience, allowing greater understanding of the deeper meaning or significance (van Manen, 1997).

Aspects of lived experience that are of interest to phenomenologists are lived space or speciality, lived body or corporeality, lived time or temporality, and lived human relation or relationality (Holloway & Wheeler, 1996). Therefore, the main data source is usually in depth conversations or interviews. Studies generally involve a small

number of participants (Polit, Beck, & Hungler, 2001). These four existential aspects of lived body, space, time, and relation, can be differentiated but not separated. They unite to form our lifeworld, or lived world (van Manen, 1997, p105). For example, a parent sees their child as separate but a part of them (lived body), has hope for their future and what they will become (lived time), the family home is seen as a secure haven (lived space), and the relationship of parent to child as a special bond (lived relation). These combine to form the parent's lived world.

When the decision is made to undertake research from a phenomenological viewpoint, the researcher begins a self-reflective process. These reflections are documented so that one can become aware of one's biases and assumptions in order that they can be bracketed and put aside so that preconceived ideas do not influence the investigation. However, in interpretive phenomenology the biases and assumptions are not bracketed but instead are incorporated into the interpretive process. The researcher then must account for their position or experiences throughout the study. These reflections are recorded in a reflective journal where they can be referred to when necessary (Laverty, 2003).

Thus, the components of phenomenology enable a researcher to gain a deeper understanding of the nature or meaning of everyday experiences (Caelli, 2000; Crotty, 1996). Phenomenology's quest to discover what it means to be human and to gain a deeper understanding of human experience within the context of their culture emerged from two "schools", *descriptive phenomenology* and *interpretive phenomenology* (Caelli; Munhall, 2007).

### **Descriptive Phenomenology**

Descriptive phenomenology is concerned with objective phenomena. Phenomena are reduced using free imaginative variation and bracketing, in a search for essences (Maggs-Rapport, 2001). Bracketing identifies and holds in abeyance preconceived beliefs and opinions about the phenomenon (Polit & Beck, 2004). Intuiting involves being open to the meanings attributed to the phenomenon by those who have experienced it. Analysis then extracts significant statements, and categorises and makes sense of the essential meanings of the phenomenon. Describing the phenomenon occurs when the researcher understands and is able to define the phenomenon (Polit & Beck, 2004).

During data analysis, the researcher aims to produce a description of the lived experience. There are several interpretations of the data analysis process depending on the school of phenomenology chosen, which have varying requirements or number of procedural steps involved in the analysis process (Holloway & Wheeler, 1996). Issues of reliability and validity are addressed through the examination of rigour, trustworthiness, credibility, and authenticity (Laverty, 2003).

### **Interpretive Phenomenology**

The phenomenology of Heidegger and Merleau-Ponty (1962) varied from that of Husserl, in that they considered that the phenomenological reduction or bracketing, was impossible as humans are too much “beings in the world” to achieve such a state (Wimpenny & Gass, 2000). Heidegger introduced the concept of *dasein* or the human way of being in the world, asserting that people cannot remove themselves from things that influence their choices and give meaning to lived experience. This was the basis of his beliefs on pre-understanding, which means people come to a situation with practical familiarity or background experience (Wojnar & Swanson, 2007). Other distinctions between descriptive and interpretive phenomenology include understanding the phenomena in context rather than describing essences, and the belief that humans share culture, practice, and language, rather than consciousness (Koch, 1995).

Furthermore, Heidegger considered *understanding* rather than description, believing not only in phenomena but also in their interpretation. Interpretive phenomenology uncovers concealed meanings embedded in the words of the participant’s narrative. It allows empowerment through awareness of new meanings in lived experience (Maggs-Rapport, 2001). Interpretive phenomenology involves interpreting and understanding, not only describing the human experience. Bracketing does not occur and it is assumed that there is prior understanding by the researcher (Polit & Beck, 2004).

The process of conducting research using Heidegger’s phenomenology requires the researcher to engage in both descriptive and interpretive activities. There is a need for rich description of everyday living as well as interpretive analysis. Interpretive research requires more than the role of recorder. It requires interpretation as the researcher engages with the phenomenon and goes beyond the literal meaning of

the participants' words to find the fore-structures and thematic meanings held in the data (Mackey, 2005). The process begins with reading and listening to the data to engage with it, highlighting relevant points, transcribing text, proposing ideas about its meaning, considering what really stands out and considering what could be absent. There is reflection on the experiences by stepping back from the data to reveal aspects of the phenomenon which form the final themes (Mackey, 2005). Attention is also paid to what is not said, for instance silence, the absence of speaking, the silence of the unspeakable, or the silence of life itself (van Manen, 1997).

In Heidegger's phenomenology the interpretive process is circular, moving back and forth between the whole and its parts and between the researcher's previous understanding and what was learned through the investigation. Heidegger referred to this action as entering into a hermeneutic circle of understanding which blends together meanings as described by the researcher and the participants. The aim of hermeneutic enquiry is to identify meanings from the blend of the researcher's understanding, the information derived from the participants, and data obtained from other relevant sources (Wojnar & Swanson, 2007). By moving through the hermeneutic circle, from the parts of the experience, to the whole of the experience and back and forth again and again, the researcher is able to increase the depth of engagement with and understanding of the text. The end of this process occurs when one has reached a place of sensible meaning, free of inner contradictions (Lavery, 2003). Thus, the whole of the experience can be understood by studying each part, and then referring to the whole. Pre- understanding is the point of entry into the circle, and then early understandings or fore-projections become evident and are constantly revised as new meanings emerge from the text (Gadamer, 1989).

### **Interpretive Phenomenology and this Research**

This study aims to explore the experience of women with breastfeeding problems following a caesarean section under regional anaesthesia using interpretive phenomenology. Interpretive phenomenology best aligns to this research topic because of the researcher's previous experience as a midwife and lactation consultant in a tertiary hospital breastfeeding clinic. The role of midwife and lactation consultant prompted this inquiry and affords the researcher prior understanding of

the phenomenon. The researcher's ability to bracket personal experience when interpreting the phenomena was believed to be an obstacle and therefore interpretive phenomenology was better suited as a research methodology as it allowed the use of this knowledge to enhance the interpretation of the data.

Phenomenology provides nursing and midwifery researchers with an approach to inquiry that fits well with nursing philosophy; an understanding of unique individuals, their meaning and interaction with others and their response to actual and potential health problems (Lopez & Willis, 2004). Further, many nurse researchers have found interpretive approaches to research, more likely to reveal the depth and diversity of nursing and midwifery knowledge (Fahy, 2005). This aligned with the research topic which sought to examine in depth the experience of a group of women having significant breastfeeding problems after their caesarean delivery under regional anaesthesia, in an effort to interpret and explain this phenomenon.

Phenomenology allows research to be conducted in a natural setting which uses the knowledge embedded in experience. It provides a way of approaching research which focuses on the person and the context of their existence (Mackey, 2005). Additionally, the interpretive phenomenological approach is thought to be useful in examining experiences in context that might have direct relevance to practice. A hermeneutic framework can enable the researcher to bring to notice hidden features of an experience that may have been overlooked in a purely descriptive study (Lopez & Willis, 2004). Thus describing and interpreting the experiences of a group of breastfeeding women having considerable struggles with breastfeeding their babies was best framed within an interpretive phenomenological structure. This phenomenon has not previously been examined in the literature using this methodology.

Therefore, this philosophical position is best positioned with the research purpose of describing, interpreting, and understanding the experience of women with breastfeeding problems after caesarean section under regional anaesthesia. Possessing a greater understanding of this phenomenon has the potential to identify possible changes to practice as these can be investigated and proposed as necessary. The information gained from this study and the understanding gained in

this area, will fill the void in knowledge of what women could be experiencing with regard to this phenomenon.

## **METHODS**

Semi- structured in depth interviews were used to gather data. Interviews were recorded by audio taping. Structured open ended questions were asked, to obtain as broad a description as possible but allowing participants to elaborate at will. The data was then transcribed mostly by the researcher as this provides an opportunity for identifying nuances and in some instances themes. The transcriptions were examined in detail and reflected on, to assist in determining themes and to aid in explicating meaning from the narrative.

### **Sampling**

Purposive sampling is the most common method of data collection in phenomenology. Purposive sampling allows the selection of participants whose qualities or experiences permit an understanding of the phenomenon in question, which gives the sample strength (Cluett & Bluff, 2000). Inclusion criteria are established to ensure that a homogenous sample is obtained to demonstrate what a particular experience is like for a particular group. The size of the sample is considered adequate when interpretations are clear and new informants reveal no new findings, that is until a point of saturation is achieved (Crist & Tanner, 2003). A purposive sample of eight women were utilised for the purpose of this study. Women were invited to participate in the research immediately following their referral to the Breastfeeding Support Centre at a major tertiary hospital in Brisbane.

### **Selection Criteria**

The criteria for selection were:

- referral to the Breastfeeding Support Centre with breastfeeding difficulty
- birth by caesarean section at term at the tertiary hospital
- regional anaesthesia intrapartum
- consent given to participate in the study



## Exclusion Criteria

- any mothers who declined to participate in the study
- any mothers who were not having significant breastfeeding difficulty
- any mothers who did not birth by caesarean section with regional anaesthesia
- any mothers who were not breastfeeding their infant
- any mothers who were being seen by myself as the Lactation Consultant to provide support
- any mothers less than 18 years of age

## Participant Profile

Eight women consented to participate in this study. Women were initially approached by the lactation consultants within the Breastfeeding Support Centre following their referral to determine if they may be interested in joining this study. At this point the women had only agreed to being contacted by the researcher to receive further information about the study, then consent to join the study was sought.

Details surrounding the participants' profile (using pseudonyms) are outlined in the table below (Table 1). The participants ranged in age, parity, public or private patient status, whether the caesarean section was an emergency or elective, and the type of anaesthetic administration used in their delivery. Information about the amount of time the baby received skin to skin contact after the caesarean was documented in their case notes, derived from the chart review and included in the table. The number of formula feeds given in the first 72 hours of life and the feeding method used at three weeks postpartum is displayed and demonstrates a variance in breastfeeding outcomes.

**Table 1: Participant Profile Table**

Name	Age	Parity	Mode of delivery and Financial Class	Anaesthetic	Skin to skin post C/S	No. of formula feeds in first 72 hrs	Feeding method at 3 wks
Janet	25	Primip	Emergency C/S for FTP- Public	Epidural + top up	Nil	5	Mostly BF, some EBM top ups
Kim	40	Multip	Elective rpt C/S- Private	Combined epidural/ spinal	30-45 mins	Nil	Not BF, Expressing and giving EBM,
Belinda	26	Primip	Emergency C/S for FTP- Public	Epidural + top up	Nil	12	Mostly BF, some EBM top ups
Cheryl	27	Multip	Trial of labour, then C/S for FTP- Private	Spinal	30-45 mins	3	Partial BF, exp, giving EBM/formula
Linda	32	Primip	Elective C/S- Private	Spinal	15-30 mins	Nil	Fully BF
Jane	32	Primip	Elective for mild PIH and GDM- Private	Spinal	<15 mins	11	Partial BF, mainly formula
Chloe	41	Primip	Elective for breech- Private	Combined epidural/ spinal	15-30 mins	11	Mostly BF, some formula
Jasmine	28	Multip	Elective rpt C/S- Public	Spinal	30-45 mins	2	Giving Formula

FTP- Failure to progress  
C/S- Caesarean section  
B/F- Breastfeeding  
PIH- Pregnancy induced hypertension  
GDM- Gestational diabetes mellitis

## **Ethical Considerations**

### **Ethics Approval**

Ethics approval was obtained from the relevant Hospital's Research Ethics Committee (HREC) (Appendix I) and Australian Catholic University HREC (Appendix II). The hospital application also involved an application to the Scientific Sub Committee who responded with a number of questions to the researcher. The researcher's responses to the questions allowed the application to proceed to receive HREC approval (Appendix III).

## **Data Storage and Anonymity**

Personal information such as name and address were collected but only known to the investigator. Data was de-identified after interviews were completed and hard copies of any documentation were kept securely in a locked filing cabinet in the researcher's office. Additionally, data stored on the researchers' personal computer was password protected.

To ensure anonymity, all participants were given pseudonyms for the purpose of data transcription and analysis. No person other than the researcher had access to the data. Data with participant identifiers was not released.

## **Recruitment and Consent Process**

Participants were sought from the Breastfeeding Support Centre in a large tertiary hospital. Informed consent was sought by the researcher after being advised of potential participants by the Lactation Consultants in the Breastfeeding Support Centre. Consent was sought while the participants were inpatients. Participants were advised that they were able to withdraw from the research, if they so wished, at any time. The project was explained verbally in addition to the provision of a written Patient Information Sheet (Appendix V). Each participant was given approximately 2-3 days to consider whether they wish to participate in the research before being asked to indicate their decision, the aim being to gain consent prior to discharge if possible. If a longer period of consideration time was required, this was also accommodated. The timing for informed consent was approximately 72 hours after birth to ensure mothers had recovered from the birth and had had time to initiate their breastfeeding, but preferably before discharge. The setting of informed consent occurred within the hospital surrounds in a quiet personalised environment. The participant was asked to verbally recount what they were consenting to, to ensure they were fully cognisant and agreeable to participation.

After consent was obtained by the researcher, participants were contacted by phone after discharge, to arrange a mutually convenient appointment time for an in depth interview in the participant's home environment. Interviews were conducted within the first two to four weeks after discharge from hospital. Participants were

interviewed in their home because it was believed to be more convenient and disassociated women from the hospital setting.

### **Risk of harm**

There was no perceived direct risk to the participants however there was the possibility that recounting their birth events and breastfeeding issues may have the potential to cause distress. However, provisions were made if women became distressed, such as ceasing the interview and offering the woman counselling by the hospital Patient Liaison Officer or Social Workers. Contact details surrounding community health care organisations such as Beyond Blue, 13 Health, Lifeline, Child Health and Australian Breastfeeding Association could also be provided. Any risk to my personal safety when conducting the interviews was managed by always carrying a mobile phone and informing someone of where I was going to conduct the interview.

### **Data Collection**

The data collection method primarily associated with this form of qualitative research is interviews. Interviews are considered to be one of the most popular and widely used methods in phenomenology. In depth interviews provide an intimacy that is essential in uncovering and understanding little known phenomena. The interview can offer a sense of freedom, allowing participants to speak freely and candidly about their personal experiences. The use of open ended questions is particularly important in achieving this freedom of information sharing. There must also be a feeling of trust between the woman and the researcher, and it is important to build a rapport with the respondent. Midwives generally possess qualities that promote a unique closeness with women, and the communication skills necessary to encourage women to relax and share their story (Cluett & Bluff, 2000).

Data was collected through in depth interviews by the researcher, between the period of February 2010 and May 2010. The interviews were of approximately 60 to 90 minutes, although a few extended for longer. Strategies employed to put the mother at ease included accepting a cup of tea (if offered) to encourage a relaxed atmosphere. The interviews would sometimes be interrupted by the need to attend to the children or care for the baby, at which times the recording was paused and

general conversation was had until the mother was ready to recommence the interview. Other times loud noises such as dogs barking and council trucks working outside, or partners arriving home, would interrupt proceedings or prove distracting for a short period. Semi-structured questions were designed and the interviews audio-recorded for accurate transcription. Semi structured questions allow for in depth discussion of the phenomenon, using guided questioning to assist in keeping concentrated on the topic of interest. The questions asked in the interviews included:

- Can you tell me about your birth experience?
- What can you tell me about your anaesthetic experience?
- How would you describe your first breastfeed after your caesarean section?
- How would you describe your breastfeeding experiences while a patient on the postnatal ward?
- Can you tell me about the help and support you got from the nursing staff?
- How would you describe your baby's level of interest in breastfeeding?
- How did you feel about your breastfeeding difficulties?
- Can you tell me about your breastfeeding experience since you've arrived home from hospital?

These questions facilitated the flow of the conversation without obstructing general storytelling and were designed to keep the participants focussed. Additionally, these semi-structured questions enabled the interviewer to clarify information provided and allow the pursuit of another line of questioning where applicable (Hansen, 2006).

Other prompt questions can arise as necessary through the interviews, such as "Can you tell me more about that?" or "you talked earlier on about...can you explain that further?"

### **Field Notes and Reflective Journal**

Throughout the interviews, vocal intonations, physical expressions and gestures were included as field notes and later incorporated into transcriptions of the interviews (Crist & Tanner, 2003). An example of a field note after Interview Three is,

Belinda is still upset about not having skin to skin contact after her C/S and traumatised by not being able to hold her baby the first night, hearing her cry

and being unable to reach her (sobbed quietly while recounting events, sad haunted expression on face).

Field notes were included in a reflective journal to form another means of data. The researcher completed a reflective journal following each interview whereby notes were recorded surrounding any observed non-verbal communication, such as not providing eye contact, fidgeting, or getting teary and emotional while telling her story, as well as thoughts and perceptions by the researcher about the interview. Additionally, the reflective journal provided an audit trail to promote rigour of the study. An excerpt from the journal is provided as Appendix 4.

Transcribing of tapes was predominantly undertaken by the researcher to allow the researcher to engage with the data through the recording of participant narrative. Follow up phone calls or interviews may have been needed to clarify information or follow up progress, but however were not required as sufficient information was obtained from the first interview. Examination of the women's hospital records was considered necessary to provide background information surrounding their births.

### **Data Analysis**

Data was analysed and reflected upon, thought segments synthesised, synthesis of the essences of the phenomenon, and themes generated. Initially, a matrix chart was developed and data was manually coded to identify emerging and common themes from all of the interviews. However, the methodological technique for analysing and interpreting phenomenological data is the process of hermeneutical writing suggested by van Manen.

Analysis involves a circular process of writing and rewriting to clarify, reflect, and allow for the revealing of deeper meaning. This distances the researcher from the phenomenon, allowing perspective, but also draws them towards it, allowing focus on the phenomenon itself (van Manen, 1990, cited in Mackey, 2005). The *hermeneutic circle* is a metaphor of Heidegger's to describe the experience of moving between the parts and the whole (Koch, 1996). In keeping with van Manen's approach to analysis, I read and re-read the transcriptions and also listened frequently to the voice recordings to ensure accuracy of the transcripts.

Crist and Tanner (2003) describe five phases of hermeneutic interpretation which overlap due to the circular process of examination. These are early focus and lines of inquiry; central concerns; exemplars and paradigms; shared meanings; final interpretations; and dissemination of the interpretation (Crist & Tanner, cited in Speziale & Carpenter, 2007).

The Heideggerian viewpoint is that interpreters participate in making data because the hermeneutic circle cannot be ignored. Stories are told by self interpreting patients who along with the researcher have brought their pre-understandings to the research process. Researchers bring their interests to the data, in the ongoing process of observation, interviewing, reading and writing. Maintaining a reflexive journal is also essential to being part of the hermeneutic circle (Koch, 1996). For example, the women's self-interpreted stories of breastfeeding difficulty were examined individually by myself, the researcher, who has pre-understanding of the phenomenon. Important themes were identified, then all the stories were examined collectively, and common themes collated. This prior knowledge of the researcher merges with the new knowledge gained from the storied recounted and an understanding of the phenomenon is reached.

Interpretive phenomenology does not require the researcher to bracket his or her own preconceptions or theories during the process. The researcher acknowledges any assumptions that could influence the conduct of interviews, observations, and the interpretation of the text. This recognition has been described as the forward arc of the hermeneutic circle, and the interpretation as the return arc. Within this circular process, the interviews are examined together with the emerging interpretation, without losing sight of each individual's story (Crist & Tanner, 2003). For instance, the researcher's preconceptions as a midwife and lactation consultant are acknowledged and recognised as part of the forward arc of the circle. The experience of the researcher allowed a deeper understanding and a thorough interpretation of the data forming the return arc of the hermeneutic circle.

Management of data was assisted by the use of Nvivo software Version 9. Nvivo software was used to further assist with the sorting and coding of data, identification of themes and sub themes, nodes and ideas. It assisted with visualisation of the data, using modelling and showing relationships. Exemplars emerged from the

writing, which were statements, excerpts, or parts of the stories that characterised common themes across participants. Coding names may shift as interpretation continues, as part of the ongoing process of interpretation between the women's stories, field notes, and the researcher's writing (Crist & Tanner, 2003). Thus, in this study, Nvivo provided a data management tool that assisted in the sorting of the data and identification of themes, so that interpretations could be made as I, the researcher, moved between the interviews and the emerging interpretation of the phenomenon within the hermeneutic circle.

### **Research Rigour**

It is well recognised that the traditional scientific measures of rigour, such as validity, reliability, and objectivity, cannot be applied to qualitative research. Alternative criteria which give rigour to qualitative research are purposeful sampling, transparency of methods and analysis, respondent validation, triangulation, and researcher reflexivity. Researchers must conduct their research rigorously in relation to appropriate theory use, data collection procedures, analysis, interpretation, and ethics (Hansen, 2006).

Purposive sampling was chosen for this research to allow in depth study in order to provide a full and comprehensive understanding of the phenomenon. Purposive sampling allows control and the eradication of selection bias inherent in pre existing groups and also allows the inclusion of outliers or deviant cases that would be discounted in quantitative approaches (Hansen, 2006). Therefore, in this study women were purposefully chosen who had had a caesarean section under regional anaesthesia and had had difficulty breastfeeding while in hospital. They were chosen for the contribution they could make to the comprehensive understanding of this phenomenon. This purposeful sampling of participants enhanced credibility and rigour of the study.

In an interpretive phenomenological project, rigor is addressed by the multiple stages of interpretation throughout the hermeneutic circle that allow patterns to emerge, the discussion of how the data is interpreted, and the interpretive process itself. Reflexivity is also achieved through constructing of texts that are credible to the experience that can be understood widely, the consistency of research outcomes, and absence of deception (Laverty, 2003). Beck (1993) identified that credibility



could also be judged by how lucid and accurate the description is to the lived experience. However, Lincoln and Guba (1985) view credibility as illustrating conduction of the research in a way that ensured the topic was accurately identified and described. Use of a decision trail which outlines rationale, outcome, and evaluation of actions, and continual involvement with the data throughout the study, also facilitates rigour and validity (Laverty, 2003). Rigour is achieved when the study is demonstrated to be trustworthy and believable. Clearly describing procedures, methodology, interpretive frameworks and plans for analysis is essential to demonstrating rigour. Providing an audit trail clarifies the research process and establishes trustworthiness of the study (Koch, 1996).

Therefore, this study had clearly described procedures, methodology and analysis, essential to establishing rigour and providing transparency. The use of Heidegger's hermeneutic circle approach in interpreting the women's stories enhanced the rigour and validity of the study. Exemplars included from the women's stories provide vivid and faithful excerpts of the women's lived experience, enhancing credibility. A reflective journal was maintained by the researcher to ensure trustworthiness of the data and contribute to researcher reflexivity. This reflective journal, along with other documents included regarding ethics approval and conduction of the study, provides an audit trail that describes and outlines the research process used, allows transparency and contributes to rigour of the study.

## **SUMMARY**

Phenomenology is a research methodology that essentially studies the lived experience or the life world. It asks "what is this experience like" as it attempts to determine meanings as they are lived in everyday existence (Laverty, 2003). Descriptive phenomenology was developed first by Husserl in 1962 and highlighted the *descriptions* of the meaning of human experience. However, also in 1962, Heidegger put forward the notion that *interpreting* and *understanding* was critical to phenomenology and that phenomenology was more than describing human experience and it is assumed that there is prior understanding by the researcher (Polit & Beck, 2004). Thus, unlike descriptive phenomenology, Heidegger considered that reduction or bracketing of one's opinions or beliefs was impossible as humans are too much "beings in the world" to achieve this (Wimpenny & Gass, 2000).

Interpretive phenomenology best aligns with this research as the purpose of describing, interpreting, and understanding the lived experience of women with breastfeeding problems after having a caesarean section under regional anaesthesia was the focus. The researcher's ability to bracket personal experience when interpreting the phenomena was identified as an obstacle and therefore interpretive phenomenology was better suited as a research methodology as it allowed the use of this knowledge to enhance the interpretation of the data. Thus, by bringing together the researcher's experiences and knowledge of the phenomenon together with the lived experiences of the women, it would allow a richer interpretation of the data and allow greater understanding of the issue.

This research explores the experience of women who encountered difficulties with breastfeeding after having a caesarean section under regional anaesthesia, and told the individual stories of these women. The data analyses uses Heidegger's hermeneutic circle to guide interpretation. Moreover, the understanding of women experiencing this phenomenon had been identified by the researcher as a gap in research literature; therefore the findings of this study will help to fill the void in knowledge in this area and may be used to inform practice.

This chapter provided an overview of the research methodology used to explore the experience of women with breastfeeding problems following a caesarean section under regional anaesthesia. It also included a discussion on the relevance of phenomenology to nursing and midwifery and specific details surrounding the conduct of the study and research design employed. The following chapter presents the findings from the study, and explores the themes that were identified from the data.

## CHAPTER FOUR

### PRESENTATION OF DATA AND ANALYSIS OF FINDINGS

#### Introduction

This chapter presents the findings of the phenomenological study into the experiences of women with breastfeeding difficulties following a caesarean section under regional anaesthesia. This study involved asking participants to describe their experience of breastfeeding following a caesarean section under regional anaesthesia. Each of the participants described their birth, what led them to their mode of birth, their experiences postoperatively, including their experience of breastfeeding and the difficulties they encountered.

Heidegger's circle of understanding was employed to identify themes surrounding the experiences of women with breastfeeding difficulties following a caesarean section using epidural or spinal anaesthesia. Each of the participants stories were explored with pre understanding of the phenomenon, moving between the parts and the whole in accordance with Heidegger's philosophy. The data was reflected on, thought segments synthesised, essences of the phenomenon revealed, and emerging and common themes determined.

Following analysis, four themes emerged. These themes included, Unnatural birth, Natural Instincts Compromised, Helping Mothers to Mother, and Sabotage and Defeat. These themes represented the mothers' journey through birth, the baby's readiness to feed, the challenges postnatally and the mothers' response to these challenges. Themes were chosen because they reflected the essence of the participants' experiences.

The four themes contain ten subthemes which reflect the true essences of the women's stories. Unnatural Birth is the theme that comprises the sub themes of *Disappointment but acceptance of the birth, Dopey, nauseous, and anxious, Skin to skin but all wrapped up* and *I couldn't reach my baby*. This theme and subthemes describe the essence of the birth experience for this group of women, which reveal their journey through caesarean section, how it affected them and their initial contact

with their baby, along with the restrictions placed on them by their initial lack of mobility.

Unnatural birth leads to the next theme of Natural Instincts Compromised which consists of the sub themes of *Too sleepy to breastfeed*, and *No inclination to suck*. This theme and subthemes describe the essence of the initial postnatal period when mothers were faced with the difficulty of breastfeeding a sleepy disinterested baby after a caesarean birth.

Following Natural Instincts Compromised is the next theme Helping Mothers to Mother. This theme is composed of the sub themes, *Conflicting information/becoming informed* and *Too busy to spend time with me*. Helping Mothers to Mother emerged from the data and reflected the essence of the postnatal experience and the women's need for support and information in their quest to solve the problem of being unable to breastfeed their baby effectively. It also reflected the problems that emerged when this support and information was conflicting or not forthcoming.

The last theme Sabotage and Defeat comprises of the sub themes *I don't have enough milk/ I agree, here have some formula*, and *Disappointment, frustration, and failure*. This theme reflects the essence of the mothers' plight when faced with delayed initiation of lactation, decreased milk supply, the alternative feeding method of formula, and the feelings this evoked in them.

In keeping with Heidegger's hermeneutic circle of understanding, by moving through the parts of the experience, to the whole of the experience and back and forth, the key themes were identified from the data and a true understanding of the text determined. Hence, exploring each individual birth story resulted in common threads being identified that were woven together to form themes and the sub themes. Figure 1 and Figure 2 illustrate the weaving of themes and the formation of sub themes.

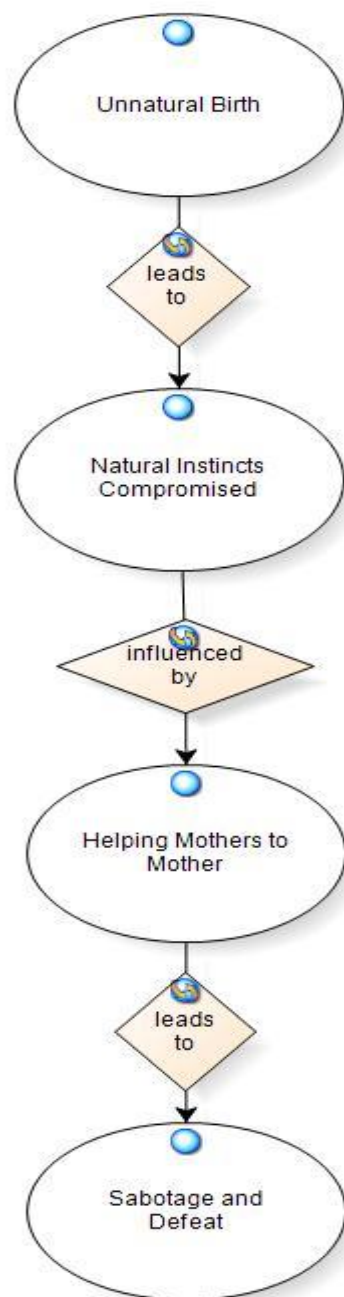


Figure 1. Relationship between themes

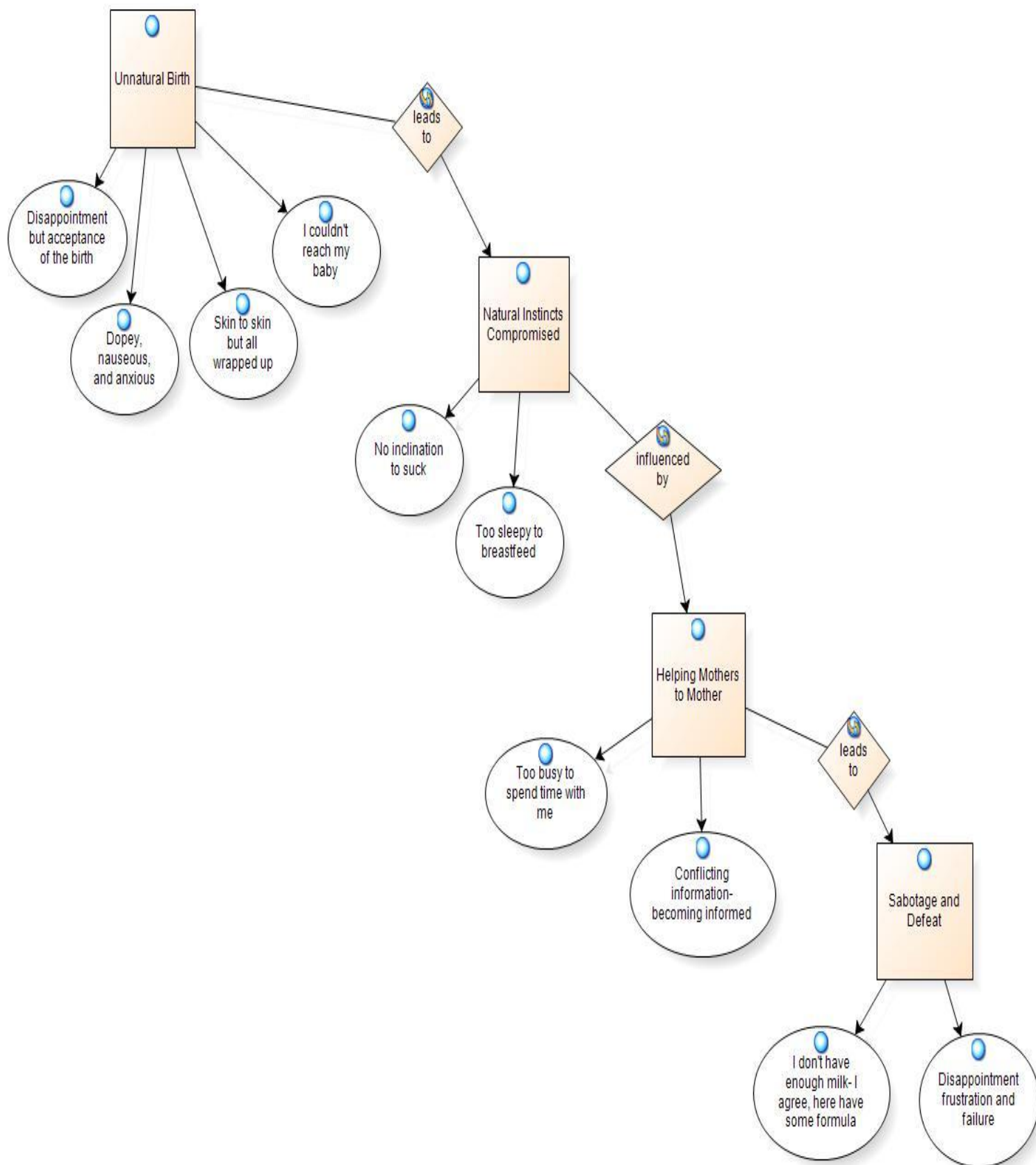


Figure 2. Relationship between themes and sub themes

## **Unnatural Birth**

The theme of *unnatural birth* evolved from the sense that breastfeeding difficulties related to the birth itself. The births were not vaginal or natural hence, the title of *unnatural birth*. Additionally, this term describes the unnaturalness of an operating theatre as the environment into which their babies were transitioning to as opposed to a more tranquil birth-suite setting. The women perceived their births to be unnatural and were disappointed at their birth outcome but resigned to it nonetheless. They were also disappointed at missing out on direct skin to skin contact after the birth, to allow for operating theatre procedures and constraints. Adding to the unnaturalness was the post caesarean state of nausea and extreme drowsiness, coupled with anxiety. Contributing to this anxiety post caesarean was the immobility of regional anaesthesia preventing them from being able to reach their crying baby, to sooth, comfort and breastfeed their child.

## **Disappointment but acceptance of the birth**

Disappointment in the birth experience emerged as a strong theme from the data collected. Six out of the eight women interviewed expressed disappointment in their birth experience, but were accepting of the outcome of having a caesarean section. Moreover, the majority of the participants appeared to acknowledge their disappointment but at the same time foresaw the decision to have a caesarean was out of their control, and were resigned to being guided by the obstetrician.

Janet, a primip, who had an emergency caesarean section for “failure to progress”, described her birth as “it was horrible. It wasn’t what I expected. I didn’t have a birth plan so I just thought whatever has to happen, happens”. Notes in my reflective journal describe Janet’s vehemence in making this comment. Janet was obviously still trying to come to terms with her birth experience and remained quite angry at having to have a caesarean and not a vaginal birth. Similarly, another primip, Belinda, who began labour and also had a caesarean for “failure to progress”, stated,

I guess I was hoping for a natural delivery and I thought I’d get to have her straight away and try breastfeeding straight away because that is what me and my husband had talked about doing.

A further participant who required a caesarean section for “failure to progress” was Cheryl. Cheryl, attempting a vaginal birth after a previous caesarean section stated, “I was quite disappointed but I’m not sure, I was just relieved to know what I was doing, I just wanted to know what direction I was headed in, but disappointed I didn’t get to experience natural labour and childbirth”. Chloe, a primip who had had an elective caesarean for breech presentation, was also quite accepting of this mode of birth. Another primip, Jane who had an elective caesarean for mild PIH and gestational diabetes, claimed,

I think that (caesarean) was my best option but I didn’t want to go down the path of natural birth with the high blood pressure, because then if it escalated I didn’t want to think what would happen after that and then going in for a rush emergency caesarean....my obstetrician said if I wanted to do the natural birth he’d support me but he’d do it in a controlled environment and I said with all the risks I’d rather have a C section and he said I’d support you in that and that’s what I’d recommend.

Acceptance of having a caesarean section was very apparent for Jasmine who had had a repeat caesarean after a previous emergency caesarean. Jasmine found her second experience to be easier than the first time stating,

It had been planned so it was sort of , we were ready for it...they did make it my choice but when I said I think I’d prefer to have a Caesar with this one they were kind of well we think that is the best idea.... I did have the choice but I just thought, they the doctors kind of said it would probably be very similar birth to my son, so I thought well if it’s going to be a similar birth I don’t want to....I mean I feel a bit not unhappy but disappointed that I don’t know what it feels like to have a natural birth because I had two caesars and I would have liked to have kind of felt what it’s like to go into labour but these things happen.

However, Jasmine appeared to want to discuss her previous emergency caesarean birth, as a way of debriefing about her previous difficult experience. She said, “It was pretty hard emotionally and physically because I wasn’t, I had it in my head that I didn’t want to have a caesar and I had to get over all that as well”.



Having a pre-understanding of caesarean birth and having worked with women during all aspects of pregnancy and childbirth, led me to reflect in my journal as to how these women were coming to terms with their caesarean birth outcomes after their expectations of a normal vaginal birth. Their tone was almost one of resignation, as well as defensiveness of their acceptance or perhaps at their part in the decision making process leading up to birth. For instance for Janet, Jane and Chloe, having their first baby would usually mean they have expectations of having a normal vaginal birth. My thoughts in my journal regarding Jane were that her hypertension had been classified as mild and her recently diagnosed gestational diabetes was controlled by diet and an oral hypoglycaemic. Therefore, I wondered if she was definitely in need of a caesarean section for medical reasons. My journal entry was,

Jane's decision to have an elective caesarean which was supported by her obstetrician seems to have been rooted in fear of what could go wrong if her blood pressure goes up in labour. Was it her decision or was it first suggested by her doctor I wonder, which made Jane feel as if she should comply?

Cheryl and Jasmine having previously experienced caesarean births, knew there was a possibility they would have the same outcome for their second births. Cheryl had a trial of labour before her caesarean, but Jasmine opted for a planned caesarean. Again I considered the decision making process in Jasmine's case, and my journal entry read,

Jasmine seems to want to assert that she had the choice to attempt labour and a vaginal birth, but this choice seems to have been unsupported by the doctors who were involved in her antenatal care. Did she need an excuse not to attempt labour, thus making it someone else's decision, or did she really want to try for a normal birth but was not supported?

Linda (a primip), who had an elective caesarean appeared to have no issues with her decision and stated, "I had a caesarean and I chose to have a caesarean. It was purely choice there was no medical reason for it. And it was great". However later in the interview after some reflection on her experience, Linda added,

One of the girls from our antenatal classes ...she'd had a pretty tough birth but she was moving around and was not in pain and was a lot freer and easier and I kind of thought well maybe I should have considered that, maybe I should have put more thought into it up front but now I'm kind of at this point... so next time I'll know that to be able to make an informed decision and I may or may not decide to go the same route. Probably the different factor would be that I'd have another child and I may well want to have a bit of a speedier recovery.

When Linda responded to the question of whether she was criticised for her decision to have an elective caesarean for her first birth, said

Yeah I had a few people, my mum for one, my mum gave me a bit of a tough time and I had a lot of people raise eyebrows over my decision which is interesting you know, women have fought for so long for free choice and to be able to make that decision right or wrong and then you make that decision and people frown upon you.

Therefore, although Linda initially stood by her previous convictions to have an elective caesarean delivery, she later appeared to have some regrets. Linda revealed that next time she would be more able to make an informed decision. My journal provides a description of the criticism she received from family and friends and mentions the touch of sadness in her voice, as though this criticism has deeply wounded her. I also reflect on the fact that next pregnancy she will be facing a vaginal birth after caesarean with the declining rates and success of this birth practice in Australia, and accompanying increasing incidence of elective repeat caesarean section.

### **Dopey, nauseous, and anxious**

This theme explains the effect of the anaesthetic on the mother, both before and after the birth. Some participants describe the anxiety and discomfort caused by the insertion of the epidural or spinal before the birth. After the birth, the main negative effects described are nausea and extreme drowsiness.

The type of anaesthetic used varied. The two primips, Janet and Belinda, who had emergency caesareans for failure to progress in labour, both had epidurals of

Ropivacaine and Fentanyl that were as bolus doses followed by infusions. These epidurals were “topped up” for the caesarean with Lignocaine with Adrenaline, with additional Morphine in Janet’s case, and Morphine and Fentanyl in Belinda’s case. Janet also had Pethidine intramuscularly during labour prior to the epidural. Cheryl, a multip who had a trial of labour after previous caesarean and had an emergency caesarean for failure to progress, had a spinal anaesthetic of Bupivacaine, Fentanyl, and Morphine.

The remaining participants all had elective caesareans, with Linda and Jasmine having spinal anaesthetics of Bupivacaine, Fentanyl, and Morphine. Jane also had a spinal anaesthetic of Marcaine, Fentanyl, and Morphine, but after “complaining of unusual sensations”, which the anaesthetist has documented as “a panic attack after the spinal”, was also given Midazolam, a benzodiazepine used for inducing sedation, amnesia, and muscle relaxation. It is contraindicated in pregnancy, a Category D drug (positive evidence of human fetal risk), with risk of respiratory depression, and decreased temperature and body tone. It is a category L3 Lactation drug of moderate risk, and Hale (2007) recommends waiting four hours to breastfeed after a dose (Hale, 2007; MIMS, 2011). Jane’s baby is also noted as being hypotonic at birth. Chloe and Kim, both had elective caesareans with combined epidural/spinals of Bupivacaine, Fentanyl, and Morphine.

Cheryl, a multip, who had a trial of labour followed by a caesarean section for failure to progress, had fear that was centred on the insertion of the spinal anaesthetic,

They did that in the theatre, the spinal anaesthetic, which was scary, that was probably the most dreadful thing out of the whole experience....It did hurt, but it just sort of scared me, something that’s going into the spine, and yeah it’s just a horrible feeling.....Sort of , well I didn’t know what to expect, I was just dreading the whole thing, especially with the contractions and everything, and having to curve over and try and keep still while they jab a needle in your spine, it was kind of scary, yeah. I remember shaking a lot and I didn’t know if it was because of the cold or because I was scared.

Similarly, Jane, a primip having an elective caesarean for PIH, also felt anxiety regarding insertion of the spinal anaesthetic,

The anaesthetist took ages getting the spinal thing in and I got really stressed out and ended up having to have, I don't know what it's called, some sort of relaxant.....It wasn't uncomfortable it just took him a really long time, he kept feeling down my spine and that man was there to sort of support me and push back, and he tried a few times.

The anaesthetic had varying effects on the participants after delivery. Belinda described her experience during the first few hours after the anaesthetic and birth. Belinda claimed, "it made me tired and quite shaky from the anaesthetic and wanting to go to sleep but not wanting to miss out on seeing her so trying to stay awake". Cheryl described similar sensations, "yeah, oh I was a bit dopey because I was a bit numb and everything". Chloe also had symptoms of hypothermia after her caesarean birth, "my temperature dropped apparently but I think that's common with the caesareans so they kept warm blankets and stuff on me". Another participant, Jane, who had a spinal anaesthetic followed by Midazolam for a "panic attack", described her postoperative experience of nausea and extreme drowsiness,

He must have injected it into the drip or something, so as a result of that I ended up quite drowsy and sort of coming in and out ....I felt nauseous from the movement and yeah I was a little bit sick. I think nauseated and drowsy...I honestly can't remember because I was so drowsy.

In my journal I have noted my concerns regarding Jane's description of her anaesthetic experience, "I cannot help but wonder how different might Jane's experience of breastfeeding have been if she had not been so drugged and unwell after her birth". I also reflected on her extreme drowsiness, her difficulty remembering the experience, and her baby's sleepy behaviour and hypotonia, as probably being related to the drugs administered in theatre. Similarly, Jasmine had a difficult time postoperatively and stated,

I was pretty nauseas afterwards....I couldn't really hold a lot of food down until the next morning...Yeah just nauseated, couldn't even keep water down.... If I sort of stayed in one position it was OK it was only if I sort of moved to get up on the bed or to sort of move down a bit to go to sleep then I got the pain, and they had me on pain killers which I kind of think affected her as well.

Kim had similar issues and said, “I felt really nauseous and stuff so I think I was a bit giddy for that reason I think.... being both nauseous and hungry at the same time and feeling the cold and the shakes and the tremors”. Kim also states that her post operative physical condition affected her bonding with the baby, “I know that after the first Caesar I did have the same shaky experience in recovery and that kind of affects my state of mind cause I’m not so attached to the baby straight away because I’m too busy feeling giddy”.

In my journal I reflected on Kim’s statement that her postoperative reaction to the anaesthetic had affected her ability to bond with her baby. My journal entry reads,

Kim’s admission to feeling her ability to bond with her baby was restricted by her condition postoperatively, is significant and understandable, and I surmise that this could negatively affect her breastfeeding and perhaps also contribute to postnatal depression.

The physical effects of the anaesthetic, not only made the women feel unwell and extremely dozey and drowsy, but also restricted them in their ability to hold, breastfeed, and care for their infants. Of note, one participant claimed that the anaesthetic also affected her ability to bond with her baby.

### **Skin to skin but all wrapped up**

The lack of initial skin to skin contact between mother and baby, particularly in the first hour after birth, emerged as an important theme from the data. In most cases a form of skin to skin was attempted in that the mother had the baby on her chest but the baby was wrapped in blankets and there was not direct skin to skin contact. Therefore, there was a token attempt made at skin to skin contact. Thus, token skin to skin contact occurs when there is no commitment to true skin to skin, but an attempt to provide some sort of contact between mother and baby that is compromised by blankets, blood pressure cuffs, intravenous drips, theatre drapes, and medical staff routine procedures.

In two cases no skin to skin was achieved at all. In all other cases it is noted (in the electronic birth record) that skin to skin had occurred and ranged from less than 15 minutes in some, to 30 to 45 minutes in others. However, where longer periods of

contact were documented, the mother's verbal account is conflicting, with memories of the time being much shorter. Therefore token skin to skin contact occurred around operating room procedures.

Recognition of the importance of initial skin to skin contact was apparent for some of the participants. For example, Belinda said "I went to a breastfeeding class before and they said skin to skin as soon as possible is the best thing and I would have liked to do that, but I wasn't able to". However, Belinda was disappointed with missing out on being offered this opportunity, claiming, "I think it was because I was too out of it". Belinda did not get to have skin to skin contact or hold her baby saying she didn't get to have a cuddle, "not until we were up on the ward", which was about three hours after birth. Similarly, Cheryl was not offered initial skin to skin contact after birth,

Oh, they just showed me the baby in theatre when he first came out I don't think I got to touch him, no, I wanted to, but I don't think anything was working to be honest, I was a bit tingly and so they checked him out straight away so I don't know I thought I would have been allowed to touch him.

Further, Jane described a very medicalised form of skin to skin contact following her birthing experience claiming,

He was whisked away to the paediatrician. My husband went over and did the whole cord thing and everything and then came back and he was put on my chest and I started getting sleepy again so then they took him off, I think the anaesthetist assistant was holding him sort of there the whole time I wasn't hanging onto him because I had the blood pressure cuff on one arm and the drip in the other so it was like that, so I think she was just holding him there and then my husband held him after that.

Likewise, Janet does not have any skin to skin time with her baby, who is so thickly wrapped that she becomes anxious,

No, they held her up so I could see her and then they took her away and did their thing, cleaned her up and then they brought her over and she was all wrapped. No she was so wrapped up and it was so thick that I couldn't see her face and I just freaked out.

Janet's fear and anxiety was initiated by being separated from her baby. She was shown her baby briefly after she was lifted from her uterus then she was removed from her sight, the amniotic fluid cleaned from her body, wrapped in so many blankets that Janet cannot see her face which caused her to panic and get upset. Janet mourned the loss of this time with her baby, "no one told me but I read lots about it, but I didn't realise that I didn't have that until afterwards, the next day so it was a bit weird.... but I didn't realise I'd missed that initial bit until it was too late".

Kim felt she was too unwell in theatre for skin to skin time, stating that she did get to cuddle her wrapped baby but recognised that this was not effective skin to skin contact. "Yes. I think because I was still feeling a bit shaky I did cuddle the baby. But I was feeling fatigued and I think they took him away after that". Kim stated she had learnt about skin to skin from this experience,

By the time I got to recovery they encouraged me to do some breastfeeding but I think I was a bit reluctant too, because from past experience the kids don't really wake up for that. I know you're really big on getting them started early but he wasn't very interested and wasn't very awake so you feel as if you're pushing them into something that they're not quite ready for, not alert enough. I understand you guys are more into skin to skin contact. I don't think there was that emphasis five years ago. That's something I've learnt from my experience this time.

My journal notes record my reflections on Kim's statement.

Kim's preconceived ideas on skin to skin and early feeding have obviously influenced her behaviour after baby's birth, which would make her if not resistant than at least not actively seeking to have her baby skin to skin on her chest. She is expecting this baby to be sleepy and disinterested in feeding as with her previous babies' experience. This highlights the need for education on the importance of skin to skin contact.

### **I couldn't reach my baby**

This theme emerged as an important issue for all of the mothers and highlighted common feelings of helplessness after birth due to the effects of the regional anaesthesia. The participants described feeling useless and unable to look after their

babies and distressed at being unable to pick up their child independently and soothe the infant's crying. For example, Belinda stated,

No she cried the rest of the night....(teary)...I don't really remember them doing much, all I can remember is not being able to get to her and her just crying....I only remember her stopping crying when my husband came back and picked her up again in the morning.

Belinda's distress is evident by her words, "I still wasn't able to reach her in the bassinette, I couldn't reach her and she wasn't close to me". Furthermore, my journal entry noted that Belinda started to cry quietly while recounting her experience, obviously still deeply affected by it. I offered to stop the interview but she chose to continue. I reassured her that sometimes it helps to talk about these things and she agreed. I later wrote about my reflections on Belinda's distress stating,

How distressing must that experience have been for Belinda, listening to her baby crying inconsolably throughout the night and not being able to reach her to soothe her? How alone and afraid must her baby have felt to be separated from her mother and not to be picked up and cuddled? How much more happier and settled would she have been skin to skin on her mother's chest and perhaps attempting to feed? My pre understanding as a midwife and lactation consultant allows me to know the enormity and significance of this event for Belinda, yet I also feel shocked at how this could be allowed to occur.

This participant also described feeling helpless in theatre. "My husband went with her and he was holding her when she came back but I wasn't really able to hold her...I was really, really drowsy and quite shaky, so I wasn't able to hold her straight away until we got up to the ward". Her sense of helplessness extended to the first 24 hours after birth in the postnatal ward, which she describes as,

Yeah it was horrible not being able to get up...I remember they showed me how to put the bed up and down but I was so tired. I seemed to keep losing the controls anyway; I kept bumping it off the bed... especially on the first night when I couldn't move around or do anything. I felt really strange not being able to move anything from the chest down, it felt weird.



Cheryl also had a feeling of helplessness and difficulty in caring for her child, “I had to rely on the midwives because I couldn’t get up to pick her up or anything...yeah I was a bit out of it”. Additionally, Jane, had difficulty accepting the period of time she was confined to bed and said,

I thought I’d be up because my first question to the anaesthetist was how long does the no feeling last for I was concerned about that, and when he said you know a few hours whatever you should be right, but you’re in bed until the next day until they get you up.

Jasmine also had difficulty with this,

Yep and I was in bed for 24 hours which was hard because I couldn’t really move around and I couldn’t get comfortable for breast feeding .. because I preferred to sort of breast feed sitting right up straight and you couldn’t really do that in the hospital bed so I think that was, it was hard finding a comfortable position to breast feed because I couldn’t get out of bed.

A multip, Kim, recalled an incident during her first night on the ward after her caesarean,

He had a scary episode about 2 or 3 in the morning when he filled up in the nose with the amniotic fluid and they put the little cot/crib thing next to me but I didn’t have much ability to swivel my body at that stage. They were a little bit concerned at that stage that he was still full of muck and he was still spitting up stuff. Anyway he started choking and I hit the buzzer because I really couldn’t get to him. I’m trying desperately to get to him. And so it was hard to sleep after that cause I was nervous and I didn’t want him to asphyxiate on me especially when I couldn’t reach him.

Like Belinda, Kim’s feeling of helplessness emerged from a distressing memory of an incident with her baby. Kim’s situation involved watching her baby choking and having to wait for a midwife to come to her assistance because she was unable to reach her baby. Her statement of “trying desperately to get to her baby” demonstrates how separated mothers feel from their babies who lie in cots, where a

few feet may as well be a few miles when they are unable to move from their beds. Her inability to sleep after this event is understandable, and my journal entry reads,

How upsetting for Kim must this have been and I cannot help but wonder if her baby had been closer to her bed with the bedrail down, perhaps in a side car cot, or if she had had a vaginal birth and been able to mobilise, how differently would her first night have been?

Like the other mothers, Linda had a feeling of helplessness and frustration at not being able to pick up her baby when needed,

Someone came and helped me because I couldn't really sit up properly and they put her to the breast. Like I would have her, I'd have the bed jacked up as high as it would go and I'd have her right beside me so if she cried in the night, which she'd quite often do, she'd cry in the night she's obviously a bit scared, it's a whole new experience for her, I'd be able to stroke her, but I couldn't pick her up.

### **Natural instincts compromised**

The theme of *natural instincts compromised* emerged from the data as one of the central concerns of the mothers collectively. The mothers were anxious and frustrated by their baby's lack of natural instincts such as their inclination to suck. The mothers' expectation was that their baby would show natural instincts such as rooting behaviour and that the baby would instinctively seek the nipple, latch on and suck. Being unable to feed their baby without an obvious reason was a source of anxiety and feelings of helplessness. The sleepy behaviour of their baby prevented the baby from being able to latch and feed effectively. The baby's behaviour appeared to be outside of the mothers' control and some participants interpreted this as a sign of rejection.

The innate behaviours of neonates and their mothers following birth in particular, close and continuous mother-baby contact, lead to successful breastfeeding. Natural instincts flourish when a non-medicated baby births and is then placed skin to skin on the mother's chest. Operative births and hospital routines involving babies being

separated from their mothers and swaddled, before being given back to their mothers, are thought to significantly disrupt innate behaviours and compromise the natural instincts between baby and mother (Moore et al., 2007). Additionally, when these natural instincts are compromised by the placental transfer of maternal drugs and a surgical birth there is a disturbance to these innate behaviours. Hence, the title of this theme Natural instinct compromised. The theme was supported by the sub themes of *No inclination to suck* and *Too sleepy to breastfeed* which reflected the essence of this compromised neonatal behaviour.

### **No inclination to suck**

This sub- theme was evident in all of the women's stories. Jane, a primip, who had had an elective caesarean section for mild pregnancy induced hypertension and gestational diabetes had less than 15 minutes with a swaddled baby on her chest being held in position by the anaesthetic nurse. Jane was sedated with a relaxant given when the spinal catheter was inserted. Therefore, Jane was too nauseous and drowsy afterwards in recovery to hold or attempt to feed her baby. She describes her baby as sleepy and not wanting to suck,

He was really docile that first 24 hours and I think that's just because of the extra drug that I might have had and I asked the midwife about it and she said yes that might be likely.....I honestly can't remember. I asked my husband and he said he doesn't think that I fed that first day. That he didn't have anything. ..he was really drowsy.

Similarly, Kim's baby demonstrated little inclination to suck since birth, and at 18 days old her baby still had not latched and fed effectively from the breast.

I could count on my hand the number of times he's had a successful latch... we're all clutching at straws because we can't figure out why he doesn't want to do it. We do exercises to try and encourage him to do it...we were pretty much confined to taking the colostrum off the nipple to feed him or cup feeding him... it just didn't happen... they put the nipple shield on, they did all sorts of things, then the syringe and tubing into the milk. I think everything was attempted as far as like the nurses tried me lying in bed with him. He was

too sleepy in the hospital anyway. We tried every posture and possible position...he liked it a tiny bit more but he prefers the taste of the bottle (teary).

During the interview Kim started to cry quietly. I offer to stop the interview but she chooses to continue, revealing,

I think he still wants to cuddle; I think he wants to smell it. We haven't done a lot of skin to skin contact but you know he likes to be in a position where he is close to your breast. I think he wants to but he just doesn't know how. Some of the nurses called him uncoordinated. We often call him lazy because we just don't know how to attribute his difficulties. I think he wants to suckle, I think he likes being close to you. I'm not sure if he wants to be attached to your breast but he certainly wants to be close to you.

Kim tells a sad tale of a mother desperate to breastfeed her baby who had no inclination to latch and suck at the breast, almost 3 weeks after birth. Kim had an elective repeat caesarean section and a documented skin to skin time after birth of 30-45 minutes, however contradicts this stating although she did cuddle the baby briefly, she was feeling fatigued and they took him away and her husband had a half hour holding him. Kim stated that when she was in recovery she was reluctant to feed him and he wasn't very interested or awake. In my journal I wrote,

Kim seems to have tried everything to get her baby to latch since birth, except perhaps true skin to skin time directly after birth and letting his natural instincts come into play. She admits to not having had a lot of skin to skin time with him, so she seems to be aware of its benefits. Her baby appears to have missed that crucial window of opportunity to instinctively latch to the breast after birth and now refuses to feed other than by bottle.

Similarly, Belinda's baby also had minimal sucking inclination,

(The first feed attempt) was on the ward maybe three or four hours later, in the early morning, I didn't have a lot of movement back in my legs and it wasn't very successful. She just cried, she just didn't seem to know what to do, she was just really distressed... She just wouldn't latch and then when she did she'd slip off and then she'd cry. And a couple of times she just got so worked up so I'd try and calm her down first then try again.

Another participant, Cheryl, described her baby as also having little inclination to suck,

Yeah he was trying but he was lethargic yeah, he just wanted to sleep, but it was unsettled sleep ... We did try him to see if he'd latch on at all. He'd try and then just go to sleep, he'd have a couple of suckles and then he would go to sleep. So he kind of knew what he had to do but he was too tired or just didn't know he had to keep doing it or maybe he was getting used to the syringe squirting milk into his mouth.

Linda's baby was also very sleepy and although she would latch to the breast she had no desire to suck. Linda said,

No she was quite happy to sit there and have her head on my nipple. But she wasn't interested in feeding for the first few days... I think that's why I started to get a bit stressed over it because she was really really sleepy... when I brought her to the breast she might have put the nipple in her mouth but she wouldn't latch and she just kind of hang there, like that, looking very cute...she never kind of pulled away or got upset or fought me at all, she just popped the nipple in her mouth and just lay there.

Likewise, Jasmine's baby would attempt to latch in a sleepy fashion but displayed no natural inclination to suck. For instance, Jasmine claimed,

I think she'd been trying to but she kind of probably more mouthing it, rather than actually latching on properly...no she went back to sleep I don't think she, I don't remember her feeding a lot. I remember her being unsettled and wanting to be on me but I don't remember her actually wanting to feed a lot, through the night...throughout that first 24 hours.... she didn't really want to feed, as much as you could try and put her on but she sort of didn't want to latch or she would get a bit upset and fussy.

## **Too sleepy to breastfeed**

This subtheme arose as a strong concern in all of the mothers' stories. Having a pre-understanding of the phenomenon allowed me to know that this could likely be an important issue for the women selected for the study. As I moved through the hermeneutic circle of understanding between the parts and the whole, the data confirmed that this was indeed a central concern for this group of mothers. Janet's baby was initially sleepy, "the midwives said she didn't want to do the work. She just wanted the milk to be there she didn't want to do it. She'd get on and then just lay there have a little suck and then cry because it wasn't there straight away". However, Kim described her baby as sleepy but admits she was not at that time a supporter of attempting to feed soon after birth,

By the time I got to recovery they encouraged me to do some breastfeeding but I think I was a bit reluctant too... he wasn't very interested and wasn't very awake...not alert enough...he was definitely still sleepy; I just don't remember what he might have done with it...I think he just liked to snuggle. I think we tried both sides but he was a bit dopey, a bit out of it.

Another participant, Cheryl, stated her baby was extremely sleepy after birth, and declared, "we did try him to see if he'd latch on at all. He'd try and then just go to sleep; he was just very sleepy and fell asleep just as soon as you put him onto the breast". Further, Linda supported Cheryl's statement but also found the assistance she received from the midwives and the management of a sleepy baby very distressing. Linda said,

We were trying to feed her every three hours and she just wasn't interested and then the midwives would come and help and some of them would be very gentle and others would be kind of grab your breast, grab that breast and grab her head and smash them together. And I had one midwife covering her in cold towels and try to wake her up like that and that really upset me.

My reflective journal entry after my meeting with Linda, states my concern at Linda's experience of breastfeeding assistance. For example,

Linda is still obviously traumatised by this experience of her very sleepy baby being apparently forced to the breast in a rough manner, that Linda likens it to a violent smashing together of breast and baby's head. Linda has tears in her eyes as she recounts this story. Applying cold towels to the baby to try and wake her up is also extreme behaviour and quite cruel. I cannot help but wonder what this baby was thinking as she was pushed and pulled and frozen with cold towels. Would she not choose to refuse the breast even more, and associate it with unpleasant sensations? This would likely make her even more reluctant to latch to the breast.

Of note, another participant Jane described having a sleepy baby, who was not able to latch but was being fed small amounts of colostrum in a syringe. Jane said, "he didn't have anything. ...he was really drowsy...I asked if that was normal and they said you know, there's no normal. But yeah no, he was sort of taking the little bits in of the injected stuff".

Belinda also encountered a similar situation claiming, "he got sleepier, he lost the screaming, from the beginning of I'm not getting enough, to just getting really sleepy at the breast once he'd latched on and he was suckling, he was just happy to go to sleep". Some of the babies remained sleepy and reluctant to feed which subsequently led to jaundice. This outcome frequently develops when baby's intake of milk is minimal and therefore the circulating unconjugated bilirubin is unable to bind to the protein for excretion.

Cheryl experienced this claiming, " yeah he was just very sleepy and fell asleep just as soon as you put him onto the breast...Yeah he had a little bit of jaundice but not enough for treatment". Another participant Chloe found her baby also developed jaundice, "They suggested that I wake her every three hours at a minimum to feed her so that's what I did because they wanted to flush the jaundice out...but it got a little bit worse because of the lack of feeding through that period".

Jasmine's baby also had ongoing sleepiness and developed jaundice, "I know she slept a lot the Saturday...she did sleep a lot and I know her jaundice sort of set in toward the end of Friday and early Saturday". Likewise, Kim found her baby continued to be sleepy with feeding and developed jaundice.

You could tell he was incredibly thirsty and he was jaundiced for a while too...he was jaundiced but it wasn't enough that he had to be treated for it. It was more just keeping him in the sunlight and trying to get lots of fluid into him. My other kids had also experienced it and I know it makes them sleepy and that.

Some of the mothers noted their babies would suffer extremes of behaviour when attempting to feed, swinging from extreme sleepiness at the breast to crying inconsolably and unsettled and unable to coordinate latching and sucking. For instance, Janet's baby would suffer from behaviour extremes with breastfeeding. "She seemed to get real frustrated with it, when she'd cry and wake up and soon as she'd get near if it wasn't there for her she'd be crying and moving her head from side to side and getting frustrated if it wasn't right there waiting for her".

Similarly, Belinda's baby had extremes of behaviour in relation to feeding,

All I remember she was crying but she didn't seem all that interested in trying. I think she had gotten too worked up by then...I don't really know, maybe it was that. She just wouldn't latch and then when she did she'd slip off and then she'd cry. And a couple of times she just got so worked up so I'd try and calm her down first then try again. Then often by then some of the midwives would get impatient with me and say she should have formula.

Another participant, Linda, also described this difficulty," he'd either scream or fall asleep...yeah pretty much...so he was screaming because he wouldn't latch on and wouldn't suck". All the mothers found their babies were too sleepy to breastfeed. Furthermore, some babies would be too sleepy to wake at all, others would wake to feed and perhaps latch but not actually have the inclination to suck, and still others would display behaviour extremes and swing from crying unsettled behaviour to then falling asleep when placed near the breast. This disturbance in normal feeding behaviour seemed significant and difficult to counteract. The lack of feeding often led to jaundice, which would make the baby even sleepier.

### **Helping Mothers to Mother**

This theme emerged from the data as a significant concern of the mothers' postnatal experience. It is made up of the sub themes of *Conflicting Information/Becoming*



*Informed and Too busy to spend time with me.* The theme is termed Helping Mothers to Mother because this is the support that new mothers need, particularly when birth has been an operative delivery and natural instincts have been compromised. The mothering instinct is strong, as is the baby's instinct to breastfeed, but when these instincts are clouded by drugs and disturbed by operating room procedure and environment; they need support to come into play.

### **Conflicting Information/Becoming Informed**

Conflicting information from the midwives regarding breastfeeding was an issue for most of the women. Most participants' revealed feeling confused by the differing advice they were receiving when faced with the problem of a baby who would not latch or feed effectively at the breast. Already distressed by the problems the women were having latching, the confusion over latching technique and management of the feeding led to even further anxiety for the mothers. Janet described her confusion over the different advice she was giving regarding feeding her infant as follows,

A couple of midwives showed me how to do it but they had different ideas so I was trying to follow all of them or one of them, it was hard....I was just confused, really confused, and worried, that I couldn't feed her and then I just had to express and use formula and then I got a Lactation consultant to come and see me and she told me a totally different way and it just worked.

Belinda also received conflicting advice from the midwives,

Some of them were saying I don't think you need to give the formula, if you just feed her your supply will pick up; she'll get what she needs. But some of them were saying to give it, that she would be hungry and that she didn't get enough from me.

Similarly, Linda was told different things by different midwives leaving her feeling confused,

if she won't feed express again try and feed her, if she's not interested don't force it... call for the midwife and they'll give her a cup feed...and one of the midwives came in and she actually asked me why I'd done that and I'd explained what had happened and she then fed her through a pipette..some

of them had different kind of opinions like one had said to me...just use your finger to kind of clear your breast away from her nose, and another one said well if her nose is on your breast then she's not attached right, so there was a bit of a difference. I was a little bit confused.

Furthermore, Linda found conflicting advice regarding the management of the baby's sleepy behaviour,

The biggest difference would be the sort of approaches of the midwives, like some of the midwives were just like oh she's just a sleepy baby, she'll wake up and she'll feed when she's ready, other midwives were like no no no you've got to wake her, you've got to force her, you've got to put cold compresses on her and wake her up to get her to feed, so there was that difference in kind of how to approach it, like none of them kind of thought about expressing or doing any of that...

The different advice became very frustrating for Linda, who had been shown how to express and cup feed when her baby was unable to latch, and was also admonished for undertaking these actions by another midwife,

I was relieved that she'd said that and then I was a little bit like well why didn't anyone else say that to me...It was interesting because after the first midwife (Mary) had done the cup feed there was another midwife that I'd called and she did the pipette feed and she actually questioned me on why I was doing it...She asked me who had said to do that and why I'd expressed. Mary had said ...the expressing machine's just there, go help yourself, express and then call the midwife to do the cup feed and that's exactly what I did. And the midwife came in and I said can you, well I'm not allowed to do this I was told, can you do it, well why are you expressing, who told you to do that. And I had to explain what had happened and I almost felt as if there was a little bit of conflict between the midwives.

When asked how Linda felt about the above she replied, "I didn't really care to be honest with you because at the time I was just really grateful that something was

happening...because I was worried that she wasn't feeding so I was like well if they've got a conflict well that's their problem". Similarly, Jane also found it difficult receiving different advice from different midwives and admitted to this causing confusion,

It was pretty consistent during the day because I had the same midwife, we found the night shifts the most tedious because... we had someone different each night and they all had their own ideas...at one point I had an argument, a nice argument, with one saying this is what the lactation consultant has told me to do, and she was saying no you're doing it all wrong...so I found that hard to deal with. And I was saying no this is the plan, we're sticking to this plan... in the end I just learnt to take it with a grain of salt and take bits and pieces from everyone.

Overall insufficient postnatal breastfeeding education was an issue for most of the mothers interviewed. In addition to struggling with difficulty latching a sleepy baby and getting conflicting advice, the women were receiving insufficient education on breastfeeding. The hospital offered a breastfeeding education session on one of the four postnatal wards six days a week; however most of the women admitted they did not attend the session due to being too busy or too tired.

For instance, Janet described her education as,

Um difficult....I don't think anyone told me how to latch her properly so I just put her on and wherever her mouth fell, that's where she sucked from...they had one talk I think it was the breastfeeding one. We were going to go, I tried to but I didn't go...Yeah, because it was like my first baby, I had no idea what I was doing. Even if someone had told me you don't just put them on and they just suck anywhere.

Another participant Belinda, also found this stating,

I think she was trying to latch but we just didn't know what we were doing I think.... and I guess I don't think I knew enough to really know what I wanted... maybe I should have done more reading especially about breastfeeding and how it works in the first few days as it actually didn't matter that my milk didn't come in for a while because the first few days they don't really need to eat

that much at all. I wasn't aware of that straight away...and I think I should have been a bit more knowledgeable about breastfeeding and what you need to worry about in the first few days that it's not about her getting anything really, it's about her learning how to do it, and me learning how to do it...

Further, Belinda added,

It would have been good to have someone there to show me what to do, who also had the time to show me what to do...Yeah especially for the first breastfeed, it would have been good to have someone show us what to do. Again if I'd known a bit about it as well that would have been good...I think I saw it (The Breastfeeding Education Session in the ward) on a timetable somewhere but I didn't go.

Additionally, Linda had a similar experience, "I think a couple of the midwives had actually had said to us about the Breastfeeding class that's on, every day at 11.00am and for one reason or another we never got to it". Another participant Chloe also found there was a lack of education for the mothers on breastfeeding,

I ended up...getting formula for her but then they told me I should ask the paediatrician and it's... well it's my baby I should have realised that, it wasn't until she got dehydrated had cracked lips and she'd slept that you know it was like warning bells something's not right here and no-one was giving me that information.

However Chloe had a paradoxical viewpoint of postnatal education claiming she should have asked for information rather than expecting to just receive it. Chloe believed that getting breastfeeding information was solely her responsibility.

I don't think that's really their role. If you ask them they will tell you so you know you've got a responsibility yourself to ask the questions you know because they've got a job to do, they've got a lot of people to see so that can't sit there and explain everything to one patient.

Moreover, Chloe did believe that it was insufficient to be given written handouts without practical support and education.

I think it would have been more beneficial if like being a first time mum that instead of when you go to hospital, here's your booklets on your Caesar your breast feeding this that and everything, have a read of them. I don't have time to pick up those little booklets and read them before I had to get settled and go to surgery....So it would have been nice so OK you're back in the room, do you know how to breast feed, you're a first time mum, no I don't know, OK would you like me to show you some techniques...when they said here's your stuff to read, I probably should have then said, well I don't know how to breast feed, can someone show me?

### **Too busy to spend time with me**

Six of the mothers felt the midwives were very busy with their workloads and this meant they were too busy to spend much time with individual women, to help them breastfeed their babies. This is particularly significant when one considers that these women were further hindered by decreased mobility post caesarean section and were having difficulty latching their sleepy disinterested babies, therefore requiring even more assistance and support. The mothers seemed very aware of the midwives being busy, whether this was either verbalised to them or by the midwives behaviour and the amount of time spent with them. For instance, Janet found the midwives were too busy to spend time with her, and stated,

It was harder at night and because there was a public holiday while I was there I think they were under staffed and a lot of the babies were playing up so it took a long time sometimes to get the help. They'd come and say "oh look we are really busy", so it was difficult at night especially...No they wouldn't stay that long, just for a couple of minutes.

Another participant Belinda commented,

Some of the midwives were really helpful and some of them weren't, they got quite impatient I think, I guess they've got things to do...I didn't have a lot of success until the lactation consultant came. I felt like she was the first person that really spent time with me (crying).....She did show me a few different positions but what it felt like to me was that she just spent the time, let me work it out rather than doing it for me...I think just showing me what to do and

then letting me do it, whereas some of the midwives kind of take over and try and do it for you, and she spent a lot of time just making sure it was the right position and we were both comfortable...

Belinda added that the midwives were too busy to assist her,

Some of them were fantastic, spent time and if I had any questions or trouble they were really helpful. Whereas others seemed quite impatient with me, they just wanted me to hurry up... it seemed pretty busy, because I know the lady next to me had a caesarean as well that day and I think there was a few others on the ward as well that were new....It would have been good to have someone there to show me what to do, who also had the time to show me what to do.

Additionally, in my diary I have reflected on Belinda's comments,

The need for someone to simply spend time with her to help her with her feeding is central to Belinda's distress. Belinda's story tells us that what she needed was uninterrupted time with the midwives and for them to help and support her but not take over and just latch the baby for her or give her the impression that she was taking up their limited time.

Therefore the lack of time could explain the midwives actions of "taking over" and latching the baby for the mothers who were having difficulties, as it was faster to put the baby to the breast for the mother rather than spend time assisting and educating her on how to do this herself. However this did not assist the mother to achieve the skill of independent feeding.

Of note, most mothers found a lack of support with breastfeeding from the midwives which included a lack of time to spend with them. Janet found this and stated,

No they wouldn't stay that long, just for a couple of minutes...Steve came up and he was told he could stay, so he was sleeping on the floor and then at 2 o'clock a different nurse came in and she said that he had to go and then I was exhausted. So they took her out to the nurse's station and she slept there, and about 5.30 they brought her back in.

A midwife may perceive that removing the baby from the mother so that she could sleep is providing support. However, mothers who room in with their babies sleep better and breastfeeding is enhanced because babies are allowed to feed on their earliest feeding cues, promoting settled behaviour and increasing breast milk supply. Therefore it is ironic that the midwives were unable to stay with Janet for any length of time, but yet found time to look after her baby for a good part of the night. Furthermore, another participant Belinda, found a lack of support with breastfeeding and a feeling of inadequacy,

Some of the midwives were really helpful and some of them weren't...I think it was my inexperience and not really saying what I wanted with the nursing staff.....I just felt like I was doing the wrong thing, that I was being judged.

When asked how that made her feel she replied, "A little bit (nervous), and also just a bit hopeless". Linda also found this claiming,

...every time we were trying to feed her every three hours and she just wasn't interested. She was born the Monday morning and so the Tuesday night that was the kind of smash and grab experience (described earlier) which did upset me actually and it got me thinking that maybe something wasn't right.

Chloe would have liked more support with being shown how to breastfeed, stating, "I should have when they said have you got all, here's your stuff to read, I probably should have then said, well I don't know how to breast feed, can someone show me".

### **Sabotage and Defeat**

The sabotage and defeat theme encompasses the sense that a woman's desire to breastfeed can be sabotaged from the outset through practices such as offering formula to the baby in the first few days after birth. For instance, the women in this study perceived that their efforts to breastfeed were sabotaged due to being made to think they had an insufficient milk supply and therefore their baby needed to be fed formula. The notion that the mother's milk supply was inadequate caused them to feel defeated in terms of being able to successfully breastfeed their infant.

Moreover, when a baby is unable to latch to the breast, the breastmilk is expressed and given to the infant in an alternative fashion. The women are under the mistaken impression that the small amounts of colostrum expressed, which are indeed normal,

are insufficient for the baby's needs and hence formula is suggested or requested. Mothers and those caring for her become worried about dehydration and low blood sugars without clinical indication. However, offering formula further complicates breastfeeding as the baby seeks the breast less and breast stimulation is reduced. Offering formula often results in perceived low milk supply, early cessation of breastfeeding and feelings of failure and defeat. Thus, Sabotage and Defeat comprises of the sub themes, *I don't have enough milk/I agree, here have some formula* and *Disappointment, frustration and failure*.

### **I don't have enough milk/ I agree, here have some formula**

Perceived low milk supply was an issue for most of the women included in this study. Low milk supply was also the perception of the midwives looking after these women, resulting in them feeling pressured to give their babies formula in the first few days of life. Six of the participants gave their baby formula either by their own volition, at the suggestion of the midwives, or because of strong pressure by the staff. The number of formula feeds given by the women ranged from nil to 12 complementary feeds. Jasmine describes her concerns over supply and subsequent early introduction of formula,

And it was about 24-48 hours and I just couldn't get her to latch so I started expressing but then I wasn't expressing much at all either when I was trying to express, not much was coming out so we had to go and get the formula because she was starting to get very lethargic and starting to look like she needed something more so we just made the decision to... When she stopped latching the milk supply diminished.

Similarly Janet perceived she had insufficient milk initially saying,

It was frustrating because like my milk had only just come in so I was only getting like 20 mls or something ...with a pump, and she'd just woof it down and it would be gone, so then I'd have to try and express again and at the time it was just crazy and really upsetting.

Another participant Belinda also thought her breast milk was insufficient in quantity and said,



We kept trying to feed her and I was expressing as well, trying to get my milk in, but they were still giving her formula because she wasn't getting enough, just small amounts...I think the first few days we were quite anxious that she wasn't getting enough to eat but I realised that that wasn't the case, that she was probably getting more than enough...maybe I should have done more reading especially about breastfeeding and how it works in the first few days as it actually didn't matter that my milk didn't come in for a while because the first few days they don't really need to eat that much.

Cheryl's experience was similar to Belinda and claimed, "I can't remember if it was the midwife or me worrying that maybe he's not settling because he's hungry because I was really worried that he just wasn't getting enough". This perception was further supported by Chloe who also believed she didn't produce enough milk, "Sometimes I was, sometimes I wasn't, but collectively I don't think it was enough for her because I couldn't stimulate my breasts enough to make more". Chloe, eventually requested formula for her baby, claiming,

Instead of being told check with your paediatrician when he come to visit, it should have been if you were struggling with the feeding let's put her on formula that's an option for you... when I realised how dehydrated she was, I took one look at her... and I said I'm taking her straight back and getting her formula because her little lips were so cracked from being dehydrated I went into panic mode.

Another participant Cheryl continued to have perceived low milk supply, and stated,

Yeah it's okay if there's some time has passed since I expressed or fed last then there will be a nice lot of milk there I'm happy with that and it seems full but if he's right on time with his feeding or a bit early I don't have enough milk and I can feel that. It doesn't help that I have to top up with formula because then my milk supply drops down even further because he's not stimulating it enough.

Similarly Jane continued to have this issue,

Through the day it wasn't enough and he always needed top ups so I still continued to express after each feed, but subsequently that's just totally

changed. My milk doesn't seem to be in as great supply as it was and so we've had to top him up with formula because I'm not producing nearly enough.

Giving formula to a baby as a supplement to breastfeeding was recommended to Janet by the midwives. She states,

Because she had the formula in the teat, it was a lot easier for her it was right there and she didn't have to do much... and then we'd try to get her to go back on the breast but it was taking way too long..... I kept trying to have go's but I had two or three days break expressing and some formula to top her up.

However, Belinda was quite distressed about the practice of offering her baby formula and said that she had been pressured into supplementing breastfeeding with formula,

They gave her some formula, because they were saying that she was hungry and I don't think I had any colostrum in yet either because when they tried to express me there was none... we kept trying to feed her and I was expressing as well...but they were still giving her formula because she wasn't getting enough.... at the time I thought that she had to have it ... I assumed that they (the midwives) knew what was best, but I don't know now that it was... I wish I'd had a bit more knowledge about breastfeeding and feeling a bit more confident about saying; no, I don't think she needs formula; I'll just keep feeding her.

In discussing the midwives approach to giving formula, Belinda said,

Some of them were saying I don't think you need to give the formula, if you just feed her your supply will pick up; she'll get what she needs. But some of them were saying to give it, that she would be hungry and that she didn't get enough from me....often by then some of the midwives would get impatient with me and say she should have formula...yeah, from that first day. She wouldn't have needed it.

In my journal I reflect on Belinda's comments and the pressure she experienced to supplement breastfeeding with formula. I wrote,

Belinda obviously regrets giving her baby formula and feels she was pressured to by the midwives who she thought “knew best”. Neither Belinda nor the midwives trusted in normal lactogenesis to occur in response to the removal of the placenta, the hormones to switch on, and the baby to latch or failing that, regular expressing to commence to stimulate milk to be produced. Once again, the natural is made unnatural by intervention with formula.

Similarly, Cheryl also gave her baby a supplementary feed of formula, “there was only once that they offered him formula that was probably about the third day...I gave him whatever I could express into the syringe and the midwife made about 10 ml of formula to top him up”. Another participant, Jane, was also encouraged to give formula, “Day 2 I had to sign a permission form saying he needed some formula because I didn’t have enough expressed, my milk hadn’t come in and the colostrum wasn’t enough so I had to sign saying yes give him some formula”.

Jasmine also felt the need to give formula as a supplement,

It was about 24-48 hours and I just couldn’t get her to latch so I started expressing but then I wasn’t expressing much at all... not much was coming out so we had to go and get the formula because she was starting to get very lethargic and starting to look like she needed something more so we just made the decision to change to formula because it looked like it was what was best.

### **Disappointment, frustration, and failure**

This sub-theme is reflective of the experiences described by the participants in their efforts to successfully breastfeed, maintain their milk supply, and in some cases face heartbreaking defeat. Of note, some of these women asserted that having seemingly failed at achieving a vaginal birth, to fail at breastfeeding is a further disappointment. Janet commented that she was frustrated by her perceived low supply and also her difficulty in attaching the baby to the breast,

It was frustrating because my milk had only just come in so I was only getting like 20mls ... I just couldn’t get the hang of the way they were doing it. They

were doing a hold and I couldn't grasp it and there were hands everywhere and I couldn't do it.

Kim described her extreme frustration and sadness from her breastfeeding experience,

Yeah, definitely, frustrating! We haven't really, that's the problem, and he's still only taking expressed milk...he'd be screaming the house down then and it wasn't a relaxing experience.... And the experience as frustrating as it is for me, I have to express with my breast pump friend here...(teary)...you can't send subliminal messages into his brain saying latch, latch, latch. He's just not getting it and I don't know what else I can do...I want to do it, but I don't think my worth as a mummy is less if I don't. It's so frustrating when you hear everyone say "oh you're still not latching". I'm trying but it's just not happening.

Kim further described her feeding issues at 18 days postpartum,

If he is intensely hungry then or if he's gone a bit longer then he won't have a bar of me, he's pushing away with his feet, scratching me, flailing around. If he's a bit calmer, he will take a few suckles and open his mouth up...He's biting me more than latching on...He doesn't like me, doesn't like my odour (laughing but teary).

My reflective journal entry explained Kim's desperate tone of voice as she spoke of her frustration at being unable to breastfeed her son. I also wrote about Kim feeling that she is holding on to hope that she can somehow get him to latch, but that these hopes had started to fade. Kim was telling herself that if she stopped trying, her worth as a mother will be no less. Additionally, Cheryl depicted her experiences of her breastfeeding journey as outlined below,

Well it was frustrating especially before my milk came in... and I was worried he wasn't getting enough, yeah I just felt sort of helpless....It was frustrating. I had the same problem with my first one....Yeah it is frustrating not being able to get it right ...Its kind of disappointing because I thought it would have been easier this time....Yeah just got to get the breastfeeding right, that's the only thing that I'm not happy about. I mean if I can do it for as long as I can, bonus,

but right now I'm just hanging in there. I just have my down times then I just get over it, just persevere, it will be worth it in the end.

Frustration was also experienced by Jane, who stated,

Yeah it's frustrating, but I think I'll just have to switch to formula now.....I don't know if there's anything that I could do differently.....If it does I'll give it another crack and see what happens but with him going to sleep all the time I don't know if it's going to be a losing battle...I don't know how to make him suck at the breast.

Jasmine also mentioned being frustrated and having feelings of despair. Jasmine later changed to formula feeding,

She just stopped latching... I just couldn't get her on and she was getting really stressed and frustrated...she went about 9 hours without a feed...she would just come off again and get really upset...It was like she was refusing it... and I just couldn't get her to latch so I started expressing, not much was coming out so we had to go and get the formula because she was starting to get very lethargic... so we just made the decision to....change to formula.

Kim also contemplated giving up breastfeeding. She said "I don't really want to but I may have to. If I can get through to six months that would be ideal as at least then he's on to solids and I guess he's only then taking three or four feeds a day by then...unless my energy runs out". When interviewed, Cheryl claimed to only be partially breastfeeding, saying, "so I put up with it to the point where I can't handle it anymore, then I'll pull him off and either express or give him a bottle". Giving up breastfeeding was also contemplated by Jane, who revealed,

Yeah it's frustrating, but I think I'll just have to switch to formula now...Yeah I hadn't been feeding him, when I get up to feed him at either 1 or 2 or 3 o'clock in the morning I don't express then... if that's had a drastic supply on my milk I'll just stop and go to formula.

Thus, the majority of the women had unfulfilled expectations of their breastfeeding experience which caused them disappointment and promoted feelings of failure. For instance, Janet stated, "I thought it would be easy, I thought I could do it straight

away, but I couldn't". Further, Kim compared her current encounter with breastfeeding with her past breastfeeding experiences, "the second one breastfed for about 8 or 9 months so that's why I had these positive experiences so I had hoped it would be something similar, yeah, but not quite" (she laughed). Kim had some initial latching problems with both her other children which improved after a short time. However, Kim described this third baby as much sleepier after birth and confirmed that breastfeeding immediately after the delivery was not attempted and there was no skin to skin time until late the following morning. The absence of breastfeeding at birth and immediate skin to skin contact could have contributed to the baby's ongoing lack of interest in feeding.

Belinda believed that she would approach breastfeeding differently in the future to ensure she fulfilled her expectations, "Next time I'd definitely not let her be given any formula; just breastfeeding. I guess I'd know what to do next time". Another participant Cheryl also describes her disappointment in relation to her breastfeeding experience,

It's not really how I wished it would have been. I'm not sure if my milk supply is enough, sometimes it is and sometimes it isn't. I don't like the idea of having to top him up with formula. I don't like having to use the nipple shield. It's just if we go somewhere I have to bring it, it's just painful. It's got to the point where it's so sore I have to pull him off and I have to actually give him a bottle...either express or give him a bottle of formula. I kind of knew what to expect with a caesarean, it was the whole natural birth I was really interested in, because I had my heart set on it.

Jasmine also feels disappointed and regretful of her unfulfilled expectations of both her two births and breastfeeding experiences. She commented,

I feel a bit not unhappy but disappointed that I don't know what it feels like to have a natural birth because I had two Caesars and I would have liked to have kind of felt what it's like to go into labour...I still feel guilty...(not breastfeeding) anyway I know he's happy and healthy and he's developmentally where he should be so you just, I guess it's because it is drummed into you so much and everyone's like breast feeding is best because of the immunity and all the antibodies and everything that you

feel...like you've failed as a mother because you can't breastfeed your child, I guess that's the main thing that I'm trying to deal with.

My journal entry revealed how sad Jasmine sounded and how she still carried feelings of guilt surrounding her previous caesarean birth and her difficulties and failures to breastfeed both babies in a society that she perceives places pressure on women to breastfeed. Jasmine suffered postnatal depression after her last child and I wrote about being concerned that she will have similar problems this time. We discussed this issue and I note that she and her partner seem well versed in the signs of impending postnatal depression. We also discussed hospital and community support networks that could be accessed for assistance if they were concerned.

## **Conclusion**

The themes Unnatural Birth, Natural Instincts Compromised, Helping Mothers to Mother, and Sabotage and Defeat, are bound inextricably together to form the matrix of birth, baby, mother, and breastfeeding, which is supported and influenced by obstetricians and midwives. Each identified theme is linked to the next theme and the clusters of subthemes are encompassed by one of the four themes as illustrated by the previous diagrams. Moreover, these themes describe the experience of women who birthed by caesarean section under regional anaesthesia and then encountered significant difficulties breastfeeding their sleepy and seemingly disinterested babies. The themes and associated subthemes illuminate the true essences of the breastfeeding difficulties and problems a group of women had after this mode of delivery.

The literature review in Chapter Two identified that women who birthed by caesarean section under regional anaesthesia were more likely to have difficulties breastfeeding, have problems initiating and maintaining milk supply, and more likely to wean early. This claim was thought by some researchers to be connected to the effect of epidural medication in particular epidural narcotics, which are thought to cross the placenta and influence the behaviour and alertness of the newborn infant. However, the data in this study clearly illustrated the issues that were significant to the mothers throughout birth and the postnatal period, in particular in relation to breastfeeding. The identified themes of Unnatural Birth and Natural Instincts

Compromised, described the essence of a mode of birth that interferes in the normal mechanisms of birth and the intrinsic desire of a baby held skin to skin, to effectively latch and suckle. The themes of Helping Mothers to Mother and Sabotage and Defeat, described the support that new mothers need when confronted with a disturbance to these natural instinctive mechanisms, and the outcomes when this support is inadequate, poor decisions are made, and breastfeeding fails. Further exploration and interpretation of these themes and subthemes is continued in the next chapter of Review and Synthesis.



## **CHAPTER FIVE**

### **REVIEW AND SYNTHESIS**

#### **INTRODUCTION**

This study explored the experiences of women with breastfeeding difficulties following a caesarean section under regional anaesthesia. The review of literature (Chapter Two) outlined how breastfeeding can be adversely affected by intrapartum analgesia, particularly regional analgesia with and without the addition of an opiate. Breastfeeding can also be adversely affected by an operative delivery in particular caesarean section. The literature also revealed that delayed initiation of breastfeeding, lack of skin to skin stimulation, difficult or dysfunctional breastfeeding, and delayed onset of lactation, are associated with early cessation of breastfeeding and infant complications such as weight loss and dehydration. However, little had been written about women's experiences of breastfeeding difficulty after caesarean section under regional anaesthesia. Therefore, this was identified as a significant gap in the literature and the data obtained from this study will contribute to the research in this area.

Interpretive phenomenology was chosen as the methodology for this study because it enabled rich descriptive data to be collected that is reflective of the participants lived experience. Moreover, phenomenology permits the participants lived experience to be interpreted and understood. Interpretive phenomenology research aims to understand rather than explain human phenomenon. Additionally, the interpretive phenomenological approach is thought to be useful in examining contextual features of experiences that might have direct relevance to practice (Lopez & Willis, 2004). Further, as described in Chapter Three, Design of the Study, the method of data analysis employed for the study was guided by Heidegger's theoretical model, using van Manen's hermeneutical framework, and underpinned by the hermeneutic circle of understanding.

Heidegger's phenomenology interpretive process is circular, moving back and forth between the whole and its parts and between the researcher's previous

understanding and what was learned through the investigation. Heidegger referred to this action as entering into a hermeneutic circle of understanding which blends together meanings as described by the researcher and the participants. The aim of hermeneutic enquiry is to identify meanings from the blend of the researcher's understanding, the information derived from the participants, and data obtained from other relevant sources (Wojnar & Swanson, 2007). By moving through the hermeneutic circle from the parts of the experience to the whole of the experience and back and forth again and again, the researcher is able to increase the depth of engagement with and understanding of the text. The end of this process occurs when one has reached a place of sensible meaning, free of inner contradictions (Laverty, 2003). Thus the whole of the experience can be understood by studying each part, and each part, by referring to the whole.

This study identified themes and sub themes that connected strongly with findings from the review of the literature in particular, the effects on breastfeeding by caesarean delivery, regional anaesthesia, delayed or ineffective skin to skin contact, and supplementation with formula. The following four themes emerged from the analysis of data; Unnatural Birth, Natural Instincts Compromised, Helping Mothers to Mother, and Sabotage and Defeat. These themes also included ten sub themes which were discussed in full in Chapter Four, Presentation of Findings. These themes and sub themes are further reviewed and synthesised in this chapter and their implications for midwifery practice outlined.

## **DISCUSSION**

The themes Unnatural Birth, Natural Instincts Compromised, Helping Mothers to Mother, and Sabotage and Defeat, are bound inextricably together to form the matrix of birth, baby, mother, and breastfeeding, which is supported and influenced by maternity care providers. Each identified theme encompasses a cluster of sub themes and is linked to the next theme. The themes are interconnected and relate back to the birth. In essence, these themes describe the experience of women who birthed by caesarean section under regional anaesthesia and then encountered significant problems breastfeeding their sleepy and seemingly uninterested babies. The themes and associated subthemes illuminate the true essences of the breastfeeding difficulties a group of women had after this mode of birth.

Literature identified that women who birth by caesarean section under regional anaesthesia are more likely to have less skin to skin contact with their babies, increased difficulties breastfeeding, problems initiating and maintaining milk supply, and more likely to wean early (Baxter, 2006; Baxter et al., 2009; Chien & Tai, 2007; Dabrowski., 2007; Henderson et al., 2003; Riordan et al., 2000 Rowe-Murray & Fisher, 2002; Scott et al., 2007; Zanardo et al., 2010;). These effects are thought by some researchers to result from the epidural or spinal medication, in particular narcotics, which cross the placenta and influence the behaviour and alertness of the newborn infant resulting in increased breastfeeding difficulties (Beilan et al., 2005; Jordan et al., 2005; Jordan et al., 2009; Radzysimski, 2002; Ransjo-Arvidsen et al., 2001; Torvaldsen et al., 2006; Wiklund et al., 2009).

This study clearly identified a number of issues that were significant to the mothers throughout birth and the postnatal period in relation to breastfeeding. These issues were previously outlined throughout the themes of Unnatural birth and Natural instincts compromised. The themes illustrated that caesarean section interferes with the normal mechanisms of birth and the intrinsic desire of a baby held skin to skin, to effectively latch and suckle. The themes of Helping mothers to mother and Sabotage and defeat revealed that new mothers need support when confronted with a disturbance to these natural instinctive mechanisms. Additionally, the findings explored what happens when support is inadequate, poor decisions are made, and breastfeeding fails.

The theme of Unnatural birth was further synthesised to explicate the key findings. The meaning of Unnatural birth (determined after moving through the hermeneutic circle of understanding), is that the birth experience is central to the difficulties encountered when breastfeeding postpartum. The women in this study all had caesarean deliveries, three were emergency caesareans after the women commenced labour, and five were elective caesareans, and three of which were women in their first pregnancy. One of these three primiparous women requested a caesarean delivery. Although the circumstances of their caesarean birth differed on an individual basis, there were common issues that emerged from the theme of Unnatural birth. The key findings from this theme were the emotional and physical effects of the birth and anaesthetic, the lack of true skin to skin contact, and the postnatal separation of mother and baby.

## **Emotional and physical effects of the birth and anaesthetic**

This study revealed that the women were accepting of their mode of birth particularly if there was any possibility of risk to the health of the baby, or if there was a sense of inevitability of a caesarean outcome regardless of labour. However, six of the eight women were disappointed, including three because they had laboured and failed to progress. Additionally, three women appeared defensive of their decision particularly if they requested or consented to elective caesarean, and three were almost resigned to their outcome of caesarean section, having had a previous caesarean or in one case a breech presentation. Previous research surrounding women's decision making in mode of birth indicated that feelings of disappointment, defensiveness and resignation are common when women had a caesarean section (Baxter & Davies., 2010; Weaver et al., 2007; Wiklund et al., 2008).

Of significance, this study found that the effects of the anaesthetic on the participants made them extremely drowsy, dozey and nauseous. Further, for some women the insertion of the epidural or spinal anaesthetic created a state of anxiety and fear. The degree of sedation appeared to vary depending on drugs administered, for instance one participant was administered additional Midazolam for anxiety with her anaesthesia which made her extremely groggy, nauseous and sedated. Additionally, the resultant loss of pain sensation caused loss of movement which gradually decreased over time. This loss of movement of their lower body caused a great deal of anxiety for women following insertion and also postoperatively, resulting in them having difficulties caring for and feeding their babies. The women had to wait until full sensation and movement returned before they could get out of bed and adequately care for their babies. The anxiety and stress that some of the women experienced could also have impacted on their ability to breastfeed as stress causes higher cortisol levels in both the mother and infant, which have been linked to delayed onset of lactation (Dewey et al., 2003).

## **Lack of true skin to skin contact**

Findings from this study also indicated that the women did not have true skin to skin contact with their baby after birth. The importance of uninterrupted true skin to skin contact is most crucial when normal birth is circumvented by a surgical delivery under the influence of heavily sedating anaesthetic drugs and narcotics. The fact that

mothers are drowsy, dozey and nauseous and their babies are extremely sleepy after birth and remain sleepy and uninterested in feeding for at least the first three to four days and up to two weeks later makes it essential that they receive skin to skin contact. Skin to skin contact will encourage the baby to instinctively seek the nipple and self attach.

Furthermore, the lack of true skin to skin contact, being inhibited by thick swaddling of infants, was apparent in all of the accounts provided by the women. Literature claims that the optimal time for the infant to begin suckling is in the first two hours after birth because they are most receptive to the mother's tactile, thermal and odour cues (Moore et al., 2007). However, this is prevented when babies are kept swaddled after birth or removed completely from their mothers touch. The findings of this study also correlate with that of Rowe-Murray and Fisher (2002) who found that caesarean delivery itself is a considerable barrier to breastfeeding, and that skin to skin contact is a significant prelude to suckling, which stimulates maternal oxytocin release and promotes the milk ejection reflex.

Findings from this study identified that the women did not have true skin to skin contact and in two cases were separated from their babies after delivery. The skin to skin contact was nominal, at best. The babies were swaddled and held on the mother's upper chest but with no commitment to true skin to skin, but an attempt to provide contact between mother and baby compromised by blankets, blood pressure cuffs, intravenous drips, theatre drapes, and medical staff routine procedures. The mothers expressed disappointment at "missing out" on this experience. Lack of skin to skin contact aligns with previous research which asserts that hospital routines where babies are separated from their mothers, dressed and swaddled, before being given to their mothers are thought to significantly disrupt these innate behaviours and compromise the natural instincts between baby and mother (Moore et al., 2007). The examination of the women's birth records documented in the hospital electronic database identified a lack of correlation between recorded length of time spent skin to skin post birth and some women's accounts of length of time holding their babies' pseudo skin to skin. The reason for this can be postulated as a decrease in accuracy of memory of the event over time, or by contrast, inaccuracy of the documentation after delivery.

## **Separation of mother and baby**

All the participants interviewed described distress in being unable to reach their babies to touch and comfort them in the initial postnatal period. The physical effects of the anaesthetic affected the women and their ability to mobilise, breastfeed and care for their infants. Furthermore, there was one participant who felt the anaesthetic affected her ability to bond with her baby. Being affected by the drugs appeared to come as a surprise to the women who either did not express prior awareness of these effects or remembered them as being less troublesome after the last birth. Literature on this topic found that women who had a caesarean birth were distressed by the lengthy and debilitating recovery period after the birth, separation from the baby, pain, immobility, difficulty bonding, and difficulty with baby care including breastfeeding (Porter et al., 2007).

Additionally, the women interviewed revealed feeling distress at being unable to touch their babies after birth, or being too nauseous, drowsy, or immobile to care for their newborn infants. They relied on partners, other family members, and midwives to assist them in caring for their babies. One mother recounts a story of not being able to reach her baby on the first night after birth, calling for the midwife to assist but being told they were very busy, and then hearing her baby cry throughout the night. Babies, who are separated from their mothers, react with immediate distress cries and “protest-despair” behaviour (Moore et al., 2007, p 2). This separation anxiety applied to both mother and baby, and was still visibly affecting this mother two weeks following the birth.

## **Difficulty initiating breastfeeding**

The key finding from the theme Natural instincts compromised was the difficulty the mothers had in initiating breastfeeding. All the women described difficulties breastfeeding their babies due to their infant’s sleepy behaviour in the days following birth. Most had missed out on skin to skin contact after delivery and in common was a delay in initiating breastfeeding. In one case breastfeeding was never successfully initiated. Overall, the mothers found their infants displayed behaviours of extreme sleepiness and difficulty waking for feeds. Normal feeding cues were not apparent. When the infants were disturbed to attempt feeding their behaviour would quickly change to crying and distress. Thus, the baby would become even more

disorganised with attachment and less inclined to latch and suck. When comforted and placed back near the breast in a feeding position, the baby would typically not feed but quickly fall back to sleep.

This swinging between behaviour extremes, from sleepiness to inconsolable crying and distress, is outlined in the literature, and prevalent in babies whose mothers have had regional analgesia or anaesthesia. For example, Ransjo-Arvidsen (2001) explored the effects of maternal analgesia during labour on breastfeeding, temperature, and crying, and found that infants whose mothers had received analgesia, including by epidural, had significantly more crying behaviour. Furthermore, research by Klaus and Klaus (2009) asserted that the drugs used in an epidural cross the placenta into the infant and have a longer half-life in the infant than in the mother. Therefore, infants affected by epidural medication are less alert in the first hour after birth, remain sleepy, have trouble latching on, cry, and are more irritable for the first one to three weeks of life. Additionally, studies have shown that anaesthesia or analgesia in labour and delivery is associated with earlier cessation of full breastfeeding and causes newborns to exhibit sleepy behaviour and disorganised ineffective sucking (Riordan et al., 2000; Henderson et al., 2003).

Therefore, what is implied from this research is that the natural instincts of newborn infants are affected by caesarean section, and this leads to difficulty initiating breastfeeding. Mothers who birth by caesarean section require additional support from midwives for these intrinsic natural instincts of mothers and babies to flourish. This finding suggests a need for increased staffing levels to assist women to breastfeed after caesarean section and to adequately care for the increasing numbers of women who birth by caesarean on postnatal wards.

### **Lack of consistent information**

The major findings from the theme Helping mothers to mother, was a lack of consistent breastfeeding information and inadequate postnatal breastfeeding support. Thus, findings revealed that the women gave voice to the much studied phenomena of conflicting breastfeeding information (Baxter & MacFarlane, 2005; Baxter, 2006; Backstrom et al., 2010). The participants' indicated feeling confused by the differing advice they received from different midwives when faced with the problem of a baby who would not latch or feed effectively at the breast. Already

distressed by the problems the women were having latching, the confusion over latching technique and management of the feeding led to even further anxiety for the mothers. Women felt that the midwives were too busy to spend time with them, when they needed increased time and support because of their breastfeeding difficulties and decreased mobility. The majority found satisfaction in being referred to the lactation consultants for assistance and a plan of care, which for some promoted consistency, but for others did not, because the plan was sometimes ignored by the midwives. Having a plan gave them reassurance and information that they could refer to when faced with midwives giving different advice without a reason for change, which was adding to their confusion.

This finding aligns with that of other recent literature. For instance Schmied et al. (2008) previously identified the need for strategies to be implemented to improve postnatal care including providing one to one time with women each day to listen to concerns and discuss issues. Continuity of care, access to a lactation support midwife, and providing consistent information on baby care and breastfeeding issues, were considered important factors in providing quality postnatal care (Schmied et al., 2008).

### **Inadequate breastfeeding support**

The impression mothers received was that the midwives were very busy due to the sheer numbers of women they were caring for as well as the volume of tasks they were required to perform. However, what the women actually wanted and needed from them was time spent to help them with feeding; not just a few minutes at the commencement of a feed. Some of the women perceived they were left to themselves to breastfeed, feeling anxious and not knowing what to do. Others felt the midwives would just latch the baby for them without showing them how to do it themselves. For example, one participant described the midwives as becoming impatient with her and taking over the task of trying to latch the baby. Another found a midwife handled her breast and the baby roughly while helping her attach and also covered her sleepy baby in cold towels to wake her up.

This inadequate support for breastfeeding women after caesarean section was also the finding of a qualitative study by McFadden et al. (2009). These authors recommended future midwifery services required engagement with women and



developing a women-centred approach. The need for sensitive individualised care and support to increase women's confidence to breastfeed was the finding of research by Sheehan et al., (2009), who discussed the problems of postnatal time constraints and the current standardised approach to care based on policies, clinical governance and the measurement of performance. These findings also correlate with research by Baxter (2006) who claims that increased breastfeeding support is particularly important for women who have caesarean sections, and that the role of the health care worker is crucial to successful breastfeeding. The combination of busy postnatal wards and higher acuity due to increased surgical births are impacting on midwives ability to support breastfeeding. This also contributes to the professionalisation of midwives and what should be normal midwifery skills to assist women to breastfeed, are at risk of being lost as midwives become busier with post-surgical nursing duties.

### **Unnecessary formula supplementation**

The solution provided to mothers' when faced with the building crescendo of breastfeeding difficulties, delayed initiation of lactation, and decreased milk supply was the alternative feeding method of formula. Thus, another key finding from this research under the theme of Sabotage and defeat was unnecessary formula supplementation of babies coupled with maternal feelings of failure. The study found that all the women had delayed breastfeeding initiation, and problems attaching sleepy uninterested babies.

According to midwives, six of the eight women had perceived inadequate milk supply. These six women gave formula supplements to their babies during the first 72 hours of life mostly at the suggestion of the midwives and without medical indication. The number of supplements given ranged from three to twelve over the first three days postpartum in volumes greater than usual colostrum or milk volumes at this stage. At three weeks of age only one mother was fully breastfeeding, two were partially breastfeeding with some expressed milk, one was partially breastfeeding with some formula, two were partially breastfeeding with mostly formula, one was giving all expressed milk, and one had weaned and was formula feeding. Formula supplementation leads to delayed breastfeeding initiation, inadequate breast stimulation and decreasing milk supply.

This finding is also apparent in the literature which revealed that giving breastfed babies formula in the early days of life leads to early breastfeeding cessation. Moreover, Baxter (2006) and Scott et al. (2006) found that women who had caesarean sections were given an increased number of formula supplements, contributing to shorter breastfeeding duration rates. Furthermore, researchers warn against practices that compromise breastfeeding outcomes, such as offering formula to breastfed babies without medical reasons (Hauck et al., 2011).

Perceived low milk supply is a noteworthy issue, confirmed by this study as being significant and a contributor to early formula supplementation. In the first few days of life only small volumes of colostrum are produced until milk comes in from 72 hours of life onwards, termed Lactogenesis II (Dewey et al., 2003). This study found that women were offered formula unnecessarily. Meaning, babies were given formula based on the erroneous concern that the small volumes of colostrum produced by the mother were insufficient for the baby's nutritional requirements. The issue of decreased milk supply experienced by this group of mothers is evident in the literature. Studies have found perceived low milk supply is common in women who birthed by caesarean section and in women who experienced epidural anaesthesia, those who delayed initial breastfeeding or fed less frequently, and those who supplemented with formula (Lin et al., 2011). Furthermore, regional anaesthesia is linked to delayed onset of lactation, breast engorgement, and iatrogenic infant weight loss because of the effect of associated increased intravenous fluids intrapartum (Baxter, 2006; Baxter et al., 2009; Cooke et al., 2003; Dewey et al., 2003).

### **Feelings of failure**

The mothers in this study expressed disappointment in their breastfeeding experience and outcomes and relayed their sense of frustration and failure when breastfeeding was difficult or eventually failed. This group of mothers expressed a strong desire to breastfeed and believed breastfeeding was best for their infants. Most were determined to master the skill of breastfeeding but some found it too difficult in the face of ongoing adversity. For some the failure to breastfeed evoked feelings of guilt and hopelessness. This is reflected in other research that has found women feel they are failures as mothers if they do not persevere with breastfeeding (Schmied et al., 2000). Further, a message for midwives is that researchers

recommend early detection and addressing of breastfeeding problems with the support of health professionals with appropriate knowledge and skills, along with efforts to ensure realistic maternal expectations of possible challenges (Hauck et al., 2011). Therefore, of most relevance to practicing midwives, is the knowledge that feelings of failure at breastfeeding can also place women at higher risk of postnatal depression (Cooke et al., 2007; Watkins et al., 2011).

## **SUMMARY OF KEY FINDINGS**

The key findings of this study are that the four themes of Unnatural birth, Natural instincts compromised, Helping mothers to mother and Sabotage and defeat, are inextricably bound together. Unnatural births cause natural instincts to be compromised. Therefore, helping mothers to mother in a sensitive and supportive manner will help those instincts, both maternal and infant, to strengthen and take hold. This will benefit the future mother-infant relationship.

The key findings that emerged from the four themes were that the birth experience is central to the breastfeeding challenges encountered by these mothers. Having a caesarean delivery left these women heavily sedated, nauseous, and unable to care for their babies during the immediate postpartum period. The lack of true skin to skin contact immediately after birth was another important issue. These mothers and babies missed a crucial opportunity to enable their and their babies' natural instincts to come into play through initial skin to skin contact. Furthermore, these babies were affected by the medications used during the caesarean section, causing them to be sleepy and unable to latch to the breast. Thus, the mothers' required skilled support and assistance to overcome these hurdles but found they received conflicting advice, and unhelpful interventions delivered by midwives too busy to spend much time with them.

Furthermore, the midwives perception of insufficient milk supply led to early unnecessary supplementation with formula, which further disadvantaged the mother's milk supply. Hence, the mother experienced further frustration and anxiety, ongoing formula supplementation, and in some cases early cessation of breastfeeding. The culmination of these events was an overwhelming feeling of failure for these women. By reviewing and synthesising the themes that emerged from the rich data that was reflective of the participants lived experience, a number

of important findings were determined. These findings can be incorporated into strategies to better care for women after caesarean section and to improve breastfeeding outcomes.

### **Translation of findings into midwifery practice**

To ensure these findings are recognised and incorporated into clinical practice a supportive framework around breastfeeding after caesarean section needs to be implemented. Figure 3 provides an illustration of a supportive framework for women who want to breastfeed following a caesarean section. This supportive framework asserts that firstly, normal birth must first be encouraged and valued, and VBAC must be strived for.

Strategies such as the Normal Birth Campaign in the UK are valuable, and the hospital where this study was conducted is also preparing a similar campaign. Natural instincts of mother and baby need to be promoted and supported and further facilitated by unrestricted true skin to skin contact immediately after caesarean delivery. Health practitioners and women need to be educated regarding the possible effects of regional anaesthesia on breastfeeding. In turn, increased breastfeeding support for mothers who have caesarean deliveries under regional anaesthesia needs to be facilitated.

Women who have a caesarean section need early unrestricted breastfeeding support by skilled midwives in a sensitive manner, unrestricted postnatal skin to skin contact, early expressing (if a mother is having trouble latching her baby), and breastmilk only for breastfeeding babies, whereby formula is not given unless medically indicated. Supporting breastfeeding by ensuring only breastmilk is consumed by breastfed infants who are having difficulty latching, in volumes that are appropriate for early days of life, will ensure breastfeeding is not sabotaged and mothers are not defeated in their desire to breastfeed their babies. Overall, the findings from this study confirm that changes are required in midwifery practice in this institution but literature supports a broader application of this assertion. An avenue for change via a supportive framework is illustrated in Figure 3 followed by a discussion regarding recommendations for policy and practice.

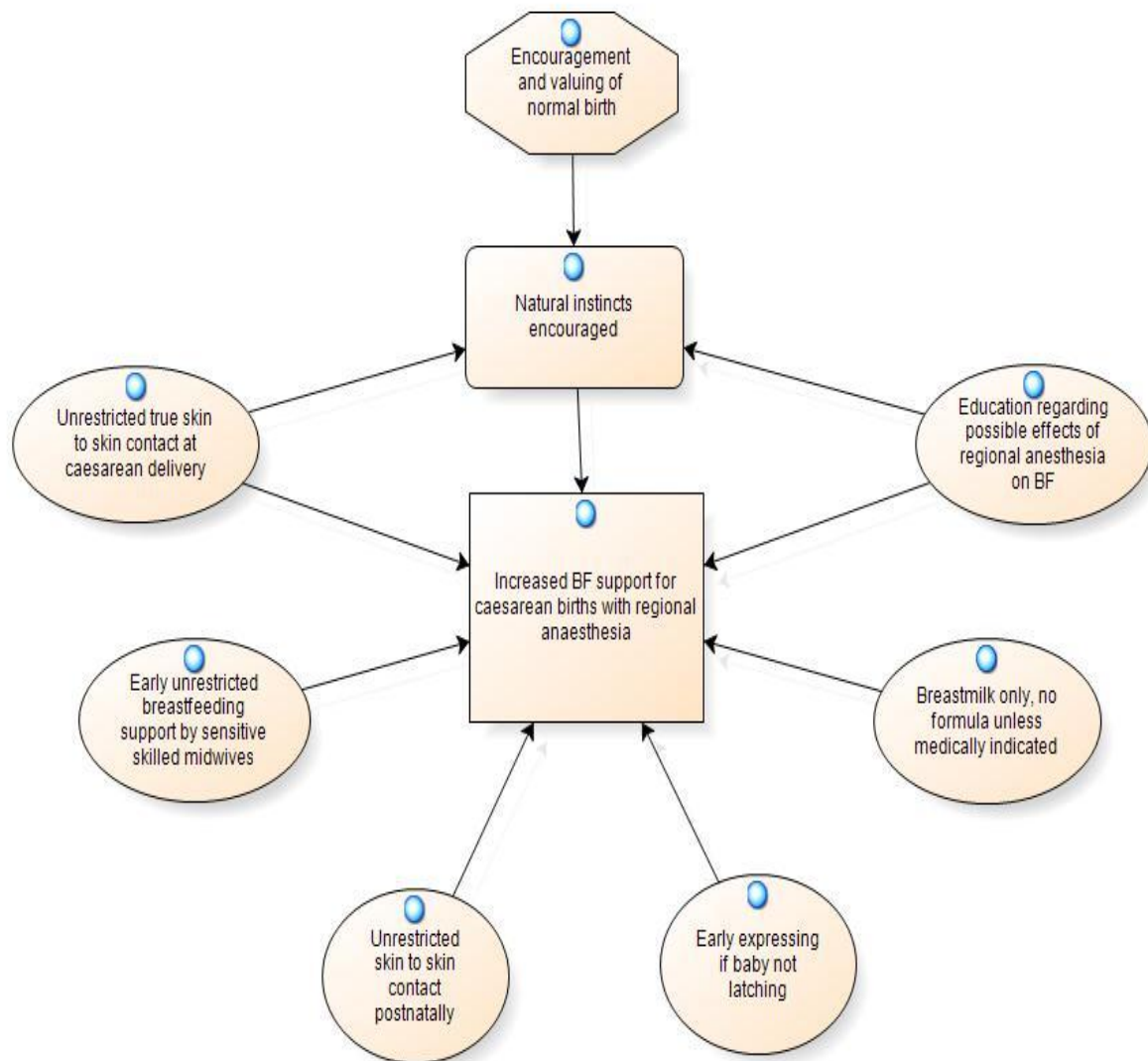


Figure 3. Supporting framework for breastfeeding after caesarean section

### Recommendations for Policy and Practice

A number of recommendations emerged from this research and subsequent review and synthesis of the findings. Many of the recommendations that follow are of key importance and need to be considered as future policies to improve midwifery practice. For instance, women need to be made aware of the possible effects of caesarean section and regional anaesthesia on breastfeeding in order to truly make an informed decision. Additionally, health professionals also need to be informed of the possible adverse effects of caesarean delivery and regional anaesthesia on

newborn babies, in particular the impact on the infant's neurobehavioral state and ability to breastfeed. However of key significance, midwives need to be educated on the importance of babies having unrestricted true skin to skin contact immediately after caesarean delivery and remaining skin to skin in recovery and during transport to the ward. This can be incorporated into the education required to implement the BFHI, which provides best practice standards for policy and procedure relating to initiation and establishment of breastfeeding. These Ten Steps to Successful Breastfeeding address issues that were found in this study of inadequate skin to skin contact and unnecessary formula supplementation of breastfed infants. The hospital where this study is set needs to ensure BFHI accreditation goals are met.

Staffing ratios of midwives need to be increased in postnatal wards to allow for increased support of women who have birthed by caesarean section under regional anaesthesia and have difficulty breastfeeding. Staffing has increased cost implications but as does the cost to society of diminishing breastfeeding duration rates. Women need more one to one time with midwives who can assist them in a skilled manner. Midwives need to be educated further in evidence based and accurate breastfeeding information and skills to ensure appropriate breastfeeding information is imparted to mothers in a sensitive and caring manner. Hospitals should investigate ways of keeping babies close to their mothers in the early postnatal period, especially with mothers who are immobile, such as using side car cots that can be attached securely and safely to the side of the bed and allow greater access to babies by mothers who have had caesarean deliveries.

Breastfeeding babies unable to latch to the breast should be given only expressed breastmilk and in small volumes appropriate to colostrum production in the first few days of life. Formula should not be introduced to breastfeeding infants unless breastmilk is unavailable and only if medically indicated. Mothers having difficulty breastfeeding sleepy babies after caesarean birth need to be educated and supported in starting early expressing to stimulate supply and be given early referral to a Lactation Consultant for further advice if problems arise.

Also of benefit would be provision of a hospital based Human Milk Bank for donor milk that would be able to provide appropriately screened donor breastmilk. Milk

Banks are a valuable option for women who have delayed initiation of lactation or perceived low supply and where supplementation is medically indicated.

### **Recommendations for further research**

Further research is essential to additionally and definitively explore breastfeeding difficulties following a caesarean section under regional anaesthesia. Delayed initiation of breastfeeding or skin to skin stimulation, dysfunctional breastfeeding and delayed onset of lactation are associated with early cessation of breastfeeding and infant complications such as weight loss and dehydration. The increasing caesarean delivery rate and the increasing use of regional analgesia with narcotics, poses an ongoing problem for women who want to breastfeed. In addition, midwives and lactation consultants will be challenged by this when attempting to help women achieve breastfeeding success. Research is therefore also required into ways of supporting the women in regard to this problem. More research and a greater understanding of this issue are required to optimise breastfeeding initiation and duration rates.

Suggested research includes larger quantitative studies such as RCT's into breastfeeding outcomes after caesarean section under regional anaesthesia with and without narcotics. This research needs to include appropriate breastfeeding assessments, preferably conducted by lactation consultants to determine accurate breastfeeding evaluation. This future research should include comparison groups of breastfeeding mothers who have had a vaginal birth with and without regional analgesia, to allow a thorough assessment of all factors that could influence the baby's ability to breastfeed. Undertaking further research would expand the knowledge on the effects of mode of birth and analgesia on the breastfeeding baby.

Further qualitative studies on this topic are also recommended to increase knowledge of the breastfeeding experience for mothers particularly after caesarean section and administration of regional anaesthesia. Breastfeeding is not solely a biological function but also a human experience that provokes a wide range of emotions and contributes to a woman's perception of herself as a mother. Therefore,

breastfeeding can be more deeply explored by qualitative methodologies that seek to describe and understand the experience.

Of particular note, there needs to be further research into the effects of skin to skin contact on mothers and babies after caesarean section in terms of breastfeeding initiation, breastmilk supply and breastfeeding duration. Further research in this area would provide increased insight into this important instinctive behaviour that can improve breastfeeding outcomes and enhance maternal- infant bonding.

Other recommended research includes qualitative and quantitative studies into postnatal hospital care from the perspective of both mothers and midwives, to further explore the postnatal experience and how this affects breastfeeding outcomes. More insight is required into our present system of midwifery care and how this can be improved to benefit mothers and to increase work satisfaction and morale for midwives.

Of benefit to breastfeeding knowledge would be quantitative and qualitative studies into the effects of formula feeding breastfed infants. If short and long term Australian breastfeeding duration rates are to be improved as recommended by NHMRC (2003) and the Australian Health National Breastfeeding Strategy 2010-2015 (2009), research must determine why breastfeeding babies are receiving formula supplements in hospital. Further investigation of the use of supplementary formula is of paramount importance in addressing the diminishing breastfeeding duration rates in Australia.

### **Limitations of the study**

The purpose of this research was to describe and interpret the lived experience of women having difficulty breastfeeding after caesarean section under regional anaesthesia. The research used interpretive phenomenological methodology to explore the experiences of new mothers. In keeping with this methodology, purposeful sampling and in depth interviews were utilised for a group of eight women who fulfilled the inclusion criteria.

Therefore, a key limitation is that it is not possible to generalise these findings to other breastfeeding women who birth by caesarean section. However, if the context of the research is described adequately there exists the possibility of transferability to



other contexts by the reader, such as the context of a larger population (Koch, 1996). For instance, if the context, methods, sampling, and results are clearly outlined, it is possible that the reader can perceive the results to be relevant to other similar situations (Lincoln & Guba, 1985). Thus, understanding the experience of a group of women in a particular context such as that explored in this study, can be transferred to similar contexts in larger populations.

Despite eight participants being a suitable number of people for qualitative research this may be viewed as a limitation by some. Meaning, a proportion of health care researchers continue to value quantitative research over qualitative. Thus, although participant numbers may be a limitation, there is also the potential to build on this study by using quantitative methods to further explore this issue.

## **CONCLUSION**

The benefits of breastfeeding are well recognised and encouraging and supporting breastfeeding women is an important health initiative with generational implications. The breastfeeding issues for women who birth by caesarean section under regional anaesthesia were explored in this research and throughout past literature. This study focused on a notable gap in the literature namely, the lived experience of women who have difficulty breastfeeding sleepy uninterested babies after birthing by caesarean section.

This study explored the lived experience of a group of women who had difficulty breastfeeding after birthing by caesarean section under regional anaesthesia. Moreover, this research uncovered themes that were of key importance to the mothers and illustrated the true essence of their experience. The major themes Unnatural Birth, Natural Instincts Compromised, Helping Mothers to Mother, and Sabotage and Defeat, were bound inextricably together to form the matrix of birth, baby, mother, and breastfeeding, which was influenced by midwives and other health professionals. The birth experience was found to be central to the breastfeeding issues experienced by the mothers.

The identified themes were interpreted and reflected upon to reveal key findings of the study. These included the emotional and physical effects of the birth and

anaesthetic, the lack of true skin to skin contact, separation of mother and baby and difficulty initiating breastfeeding. They also included a lack of consistent information, inadequate breastfeeding support, unnecessary formula supplementation and maternal feelings of failure. These findings were further synthesised to create a supportive framework for breastfeeding after caesarean section. Central to this framework were the concepts of encouraging and valuing normal birth, supporting the natural instincts of mother and baby and increasing breastfeeding support for mothers who birth by caesarean section. These concepts formed the basis of recommendations for changes to clinical practice that would improve breastfeeding outcomes for this group of women. The descriptions of their experiences by the women allowed truths about the phenomenon to be revealed and interpreted, to further increase knowledge in this important area of midwifery care.

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## Appendix I



### MATER HEALTH SERVICES HUMAN RESEARCH ETHICS COMMITTEE

15<sup>th</sup> September 2009

Ms Jackie Chaplin  
36 Riversleigh Rd  
Bellbowrie QLD 4070

Dear Ms Chaplin

**Re: A Phenomenological Study of Breastfeeding Difficulty after Caesarean Section with Regional Anaesthesia Ref No. 1396M**

I write to advise that the Mater Health Services Human Research Ethics Committee has granted ethical approval for your research proposal. Please accept our very best wishes for the success of this study. *In all future correspondence with the Committee please quote the Mater reference number.*

Documents reviewed and approved include:

- Correspondence dated 18<sup>th</sup> August 2009 and 13<sup>th</sup> September 2009 in response to Committee questions
- Completed Mater Ethics Application Form
- Financial Costing Summary
- Preliminary Questionnaire, Version 2
- Participant Information Sheet, Version 2
- Staff Information Sheet, Version 2
- Participant Consent Form, Version 2
- Curriculum Vitae – Jacqueline Chaplin

This approval is valid until **15.09.12**. Please note the following conditions of approval.

- Any departure from the protocol detailed in your proposal must be reported immediately to the Committee.
- When you propose a change to an approved protocol, which you consider to be minor, you are required to submit a written request for approval to the Chairperson, through the Secretary. Such requests will be considered on a case by case basis and interim approval may be granted subject to ratification at the next meeting of the Committee.
- Where substantive changes to any approved protocol are proposed, you are required to submit a full, new proposal for consideration by the Human Research Ethics Committee.
- You are required to advise the Research Ethics Coordinator immediately of any complaints made, or expressions of concern raised, in relation to the study, or if any serious or unexpected adverse events occur.
- Under the *NHMRC National Statement on Ethical Conduct in Research Involving Humans*, research ethics committees are responsible for monitoring approved research to ensure continued compliance with ethical standards, and to determine the method of monitoring appropriate to each project. You are required to provide written reports on the progress of the approved project annually, the first report being due on **15.09.10** and finally on completion of the project. (The Progress Report is located at <http://www.mater.org.au/Home/Research/Human-Research-Ethics-Committee.aspx> or can be accessed through the Mater Intranet, Applications, Research Register then under the project name or alternately can be emailed to you). Please inform the Committee of publications, presentations at Conferences,

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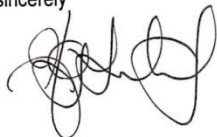


education and quality improvement outcomes from this study. The Committee may also choose to conduct an interim audit of your research.

- Please be aware that all study procedures including follow up of participants and data analysis should be completed within the approval time frame or an extension should be requested.

Please contact the Executive Director in the participating hospital/hospitals prior to commencing of the study. To access medical records, for the purpose of this study, please provide a copy of this approval letter to the Corporate Health Information Manager. I would also be grateful if you could confirm the date of commencement. (All correspondence should be directed to the Mater Research Ethics Coordinator.)

Yours sincerely

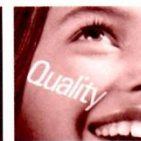
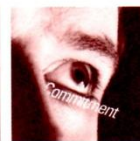


Dr Helen Liley  
Chairperson  
Mater Health Services Human Research Ethics Committee

Research Ethics Coordinator Room 235 Aubigny Place Ph: 07 3163 1585 Fax: 07 3163 1571 Email: [research.ethics@mater.org.au](mailto:research.ethics@mater.org.au)

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## Appendix II

Australian Catholic University  
Brisbane Sydney Canberra Ballarat Melbourne



### Human Research Ethics Committee

#### Committee Approval Form

**Principal Investigator/Supervisor:** Dr Jennifer Kelly Brisbane Campus

**Co-Investigators:**

**Student Researcher:** Ms Jacqueline (Jackie) Chaplin Brisbane Campus

**Ethics approval has been granted for the following project:**  
An Exploration of Breastfeeding Difficulty After Caesarean Section

**for the period:** 6 November 2009 to 31 July 2010

**Human Research Ethics Committee (HREC) Register Number:** Q2009 42

The following standard conditions as stipulated in the *National Statement on Ethical Conduct in Research Involving Humans* (2007) apply:

- (i) that Principal Investigators / Supervisors provide, on the form supplied by the Human Research Ethics Committee, annual reports on matters such as:
  - security of records
  - compliance with approved consent procedures and documentation
  - compliance with special conditions, and
- (ii) that researchers report to the HREC immediately any matter that might affect the ethical acceptability of the protocol, such as:
  - proposed changes to the protocol
  - unforeseen circumstances or events
  - adverse effects on participants

The HREC will conduct an audit each year of all projects deemed to be of more than low risk. There will also be random audits of a sample of projects considered to be of negligible risk and low risk on all campuses each year.

Within one month of the conclusion of the project, researchers are required to complete a *Final Report Form* and submit it to the local Research Services Officer.

If the project continues for more than one year, researchers are required to complete an *Annual Progress Report Form* and submit it to the local Research Services Officer within one month of the anniversary date of the ethics approval.

A handwritten signature in black ink that reads "K. Pashley".

Signed:

Date: 6 November 2009  
(Research Services Officer, McAuley Campus)

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## Appendix III

### 1396M: A Phenomenological Study of Breastfeeding Difficulty after Caesarean Section with Regional Anaesthesia

August 18, 2008

#### Responses to Questions/Comments from Scientific Sub Committee

1. Is the researcher able to comment on the usefulness/applicability of a formal hypothesis for this type of methodology?

Phenomenology is usually hypothesis generating rather than hypothesis testing. A formal hypothesis in this case is actually a preconceived idea behind the research question or phenomenon to be explored. Phenomenology as a research methodology is located in philosophical understandings of how the world is viewed. Whilst there is often a research question that is explored, there is never a theory that is tested. With hermeneutic phenomenology there is never a final 'answer'. Rather, the methodology generates further understanding about the world in which we live, based on the experiences of people in that world.

Phenomenology is an approach to research that is exploratory, descriptive, and interpretive. Hermeneutic or interpretive phenomenology which is the methodology I will be using, does not require the researcher to bracket, or put aside, his or her own preconceptions or theories during the process, thus allowing for a preconceived idea or early focus. However, the more appropriate term in qualitative research would be exploring the research question rather than providing or testing a hypothesis.

2. Will the researcher be excluding those participants that she has provided care for in the past?

I will be excluding any participants that I have provided care for in the past.

3. Will demographic data be collected?

Demographic data will be collected, including hospital record number, age, gravida, and parity, but will be de-identified and kept separately to the interview data. The demographic data will give an overview of the research participant characteristics and will not be linked to the interview data.

4. Does the researcher envisage her experience as a lactation consultant will affect her analysis of the responses received? Has the researcher planned for managing any potential bias during analysis?

In qualitative research it is important that the researcher is sensitised to the phenomenon of interest. Hermeneutic or interpretive phenomenology, presupposes that the researcher will have an understanding of the topic area. Without relevant knowledge and experience of the research topic there is a danger that data will be missed due to the naivety of the

researcher. When applying an interpretive phenomenological approach to research it is important to carefully examine the researcher's role as well as the data analysis, and any ethical issues that may emerge. Therefore, this will be addressed through reflective journaling of the researcher's experience during the interviews and analysis.

My experience as a lactation consultant provides a greater understanding of the issues to be explored and will allow a deeper analysis of the responses received. Having a good understanding of the issues and challenges of breastfeeding, will allow the participants experiences to be transformed into language which allows for understanding of the experiences and capturing of the essences.

The traditional concept of bias is somewhat redundant within qualitative research, as the intention is not for the researcher to distance themselves from the research in order to objectify it. Rather it is intended and accepted, that the researcher does influence the data collection and analysis process. The researcher must remain open and honest about their position. With interpretive phenomenology, unlike descriptive phenomenology, bracketing is not used to prevent bias (Polit & Beck, 2006).

To ensure transparency and truth are maintained and ensure credibility, the reflective journal that will be completed during the data collection period will be used to reflect and provide an additional data source. The researcher will be immersed in the data and after transcribing the data it will be read and reflected to identify themes. This process is highly fluid and continues until a point of data saturation is reached (Hansen, 2006). A summary of themes and findings will be provided to the participants who can also identify any misrepresentation and further validate the data analysis. Furthermore, self reflection or reflexivity will be used at all stages of the research process, and truthfulness and transparency maintained throughout.

Jackie Chaplin

RN RM BHlth Sc, IBCLC,

Research Master of Midwifery Candidate



## Appendix IV

### RESPONSES TO ACU HREC AND AMENDMENTS TO ETHICS APPLICATION

#### Request

B1 The research student, Mrs Chaplin is not listed at B1, but is listed as the Principal Investigator on the Mater Hospital Ethics Application. Please confirm whether this is a hospital requirement. ACU HREC requires that any student research be named as such and hence, a student is not accorded the title of Principal Investigator, as he or she is carrying out research under supervision. It is important for research participants to know that the researcher is a student. (National Statement 2.2.1, 2.2.2) A/Prof. Kelly should be listed first if she is the principal supervisor. Please clarify. (National Statement 5.2.6)

#### Response

The research student is the Principal Investigator, and this is a hospital requirement, as confirmed by Dr Lucy Carter, Research Ethics Coordinator, Mater Health Services. The Mater accepts that principal researchers can conduct a study under supervision. The principal investigator in this case is an experienced professional in the field of midwifery, works as a Clinical Research Midwife and is undertaking a postgraduate Masters degree. I have been responsible for the study design, grant application, ethics submission, and I will be, under the supervision of my supervisor. Thus, I believe I am the Principal investigator.

#### Request

E2.1 and E2.2 Please indicate the room number and campus in which the data will be kept during and following the completion of the study.

#### Response

I have been allocated a desk that has two lockable cupboards in the student research office (EC.11) for storage of data during the study. Following the study and once unnecessary data has been properly destroyed data will be stored in the locked cupboards of Associate Professor Jennifer Kelly (EB.15) Both of these offices are located on the Brisbane Campus of ACU.

#### Request

E3 Please confirm that the audio tapes will be erased and electronic data deleted in accordance with the Australian Code for the Responsible Conduct of Research (See Chapter 2) and of the University's policy on Disposal of Data. (National Statement 5.2.6)

**Response**

The audio tapes will be erased and electronic data deleted in accordance with the Australian Code for the Responsible conduct of Research and the University policy on Disposal of Data.

**Request**

F1 is incorrectly answered. The data is being collected as individually identifiable data. Please amend. (National Statement Chapter 3.2, page 29)

**Response**

The data will be collected as individually identifiable data. Once interviews are completed the data will be stored as coded data and thus will be re-identifiable data.

**Request**

The information letter should indicate that the researcher is a student researcher and that the research is being conducted as part of the Postgraduate Master of Midwifery course and should be countersigned by the Principal Supervisor. (National Statement 2.2.1, 2.2.4 and 2.2.6) The letter should also include a statement that the research has also been approved by ACU HREC (when it is).

**Response**

The information letter states that the researcher is a Postgraduate Master of Midwifery candidate from Australian Catholic University McAuley Campus Brisbane. The information letter will be countersigned by the Principal Supervisor and ACU HREC approval added to the letter once it is obtained (see attached)

**Request**

Consent form should also indicate the time commitment that is expected. (National Statement 2.2.4, 2.2.6)

**Response**

Although the time commitment that is expected is outlined in the Participant Information Sheet I have repeated this on the consent form as requested. Now, both documents support the National Statement 2.2.4 and 2.2.6 (see attached).

**Request**

The researcher should also ensure that any complaints are also notified to ACU HREC. (National Statement 5.5.1, 5.3.3)

**Response**

I understand my responsibilities under the relevant sections of the National Statement 5.5.1 and 5.3.3 and will notify ACU HREC of any complaints.

## Appendix V

### PARTICIPANT INFORMATION SHEET

**PROJECT TITLE: AN EXPLORATION OF BREASTFEEDING DIFFICULTY AFTER CAESAREAN SECTION**

**INVESTIGATOR:** Jacqueline Chaplin

Registered Nurse, Clinical Midwife, International Board Certified Lactation  
Consultant, B Hlth Science Nursing

Phone: 31631583 work (Tues, Wed, Thurs, 0700-1530)

Email: [Jacqueline.chaplin@mater.org.au](mailto:Jacqueline.chaplin@mater.org.au)

Postgraduate Masters of Midwifery Research candidate

Australian Catholic University, McAuley Campus, Brisbane.

Dear Participant,

I am currently undertaking a Master of Midwifery (Research) at Australian Catholic University (Brisbane), and I would like to invite you to participate in a research study to explore women's experiences of breastfeeding difficulties following a caesarean section. The purpose of this research is to determine if there are common occurrences that will lead to a greater understanding by midwives and potentially improve practice.

There is a wide range of literature outlining the relationship between caesarean section, epidural/spinal anaesthesia, decreased skin to skin contact post birth, and difficulty breastfeeding (Torvaldsen, Roberts, Simpson, Thompson & Ellwood, 2006; Nommsen-Rivers, 2003; Rowe-Murray & Fisher, 2002). However, there is little research on the lived experience of women who birthed by caesarean section and who had problems breastfeeding, and what this experience meant to them. A study that explores the experiences of women who have caesarean section with regional anaesthesia, will compile a rich description of this information, and give insight into the problem.

Your participation would involve consenting to be interviewed at approximately 2 weeks post delivery by myself the researcher. This interview would be conducted in your home (or a place of your choice) at a mutually agreed time and would take approximately 1 ½ hours of your time. Unforeseen delays could eventuate if your baby is unsettled which we may need to allow extra time for. I would record the conversation so that important details are not missed. I would be asking you some simple questions about your breastfeeding experience whereby you can elaborate at will.

There may be the need for a follow up phone call to clarify information or follow up on your progress. Examination of your hospital records may be necessary for the purpose of providing

background information to the birth. A summary of what you revealed will be forwarded to you for your validation.

The possible minimal risk to yourself would be anxiety or distress from discussing your breastfeeding difficulties. I would be happy to support you and also provide you with contact numbers for various support services if this were to eventuate. The benefit to you would be the chance to discuss your breastfeeding experience to allow greater understanding and improvement of hospital practices related to breastfeeding after caesarean section.

Confidentiality would be maintained, data stored securely, and your name would not be used. No data will be passed to any other person or organisation.

Participation is voluntary and you may discontinue participation at any time without comment or penalty. Refusal to participate will involve no comment or penalty. Participants may contact myself about any matter of concern, on the contact number or email address as listed.

This study has been approved by Australian Catholic University Human Research Ethics Committee and the Mater Health Services Human Research Ethics Committee and participants may contact the Mater Research Ethics Coordinator on 31631585 if you have any complaints about the conduct of the research, or wish to raise any concerns. The Research Ethics Coordinator may contact the Patient Representative or Hospital Ethicist at its discretion.

Feedback to the participants involved in the study, will be provided where this is requested by the participants in the form of a summary of the overall outcomes of the research work. There will be no cost to the participants involved in the study.

Thank you for taking the time to read this information sheet. I look forward to meeting you in due course, should you decide to accept this invitation.

Yours sincerely,

Jacqueline Chaplin - Master of Midwifery (Research)  
Australian Catholic University (Brisbane)



Associate Professor Jennifer Kelly – Principal Supervisor  
Australian Catholic University (Brisbane)

## Appendix VI

### CONSENT FORM

#### PROJECT TITLE: AN EXPLORATION OF BREASTFEEDING DIFFICULTY AFTER CAESAREAN SECTION

INVESTIGATOR: Jacqueline Chaplin

Registered Nurse, Clinical Midwife, International Board Certified Lactation  
Consultant, B Hlth Science Nursing

Phone: 31631583 work (Tues, Wed, Thurs, 0700-1530)

Email: [Jacqueline.chaplin@mater.org.au](mailto:Jacqueline.chaplin@mater.org.au)

Postgraduate Masters of Midwifery Research candidate

Australian Catholic University, McAuley Campus, Brisbane.

I have

- Read and understood the Participant Information Sheet
- Understood that participation involves being interviewed at approximately 2 weeks post delivery at a mutually agreed place and time for approximately 1 ½ hours
- Had any questions or queries answered to my satisfaction
- Been informed of the possible risks or side effects of the procedures being conducted
- Understood that the project is for the purpose of research and not for treatment
- Been informed that the confidentiality of the information will be maintained and safeguarded
- Given permission for access to my medical records, for the purpose of this research
- Been assured that I am free to withdraw at any time without comment or penalty; and
- Agreed to participate in the project.

Signature: .....

Witness: .....

Investigator: .....

Date: .....

## **Appendix VII**

### **PRELIMINARY QUESTIONNAIRE**

Examples of semi-structured open ended questions to be asked-

Can you tell me about your birth experience?

What can you tell me about your anaesthetic experience?

How would you describe your first breastfeed after your caesarean section?

How would you describe your breastfeeding experiences while a patient on the postnatal ward?

Can you tell me about the help and support you got from the nursing staff?

How would you describe your baby's level of interest in breastfeeding?

Can you tell me about the difficulties you had with breastfeeding that led to your referral to the Breastfeeding Support Centre?

How did you feel about your breastfeeding difficulties?

Can you describe your experience with the Breastfeeding Support Centre?

Tell me about your breastfeeding experience since you've arrived home from hospital.

What assistance have you sought with your feeding since you have been home from hospital?

## Appendix VIII

### STAFF INFORMATION SHEET

*This form must be completed for all research participants and kept in the front of the patient's chart in a plastic sleeve.*

PATIENT'S NAME	
PROJECT TITLE	<b>A Phenomenological Study of Breastfeeding Difficulty after Caesarean Section with Regional Anaesthesia</b>
NAME & CONTACT DETAILS OF PRINCIPAL INVESTIGATOR(S)	Jackie Chaplin Ph 31631583 Jacqueline.chaplin@mater.org.au

#### SUMMARY OF AIMS & OBJECTIVES

The purpose of this research is to explore breastfeeding difficulties experienced by a sample of mothers who have birthed by caesarean section with regional anaesthesia. The hypothesis is that women who birth by caesarean section with regional anaesthesia have increased difficulty breastfeeding. The research questions to be addressed are: Why do women who birth by caesarean section appear to have increased difficulty initiating and establishing breastfeeding in the postnatal period? What are the common themes within a group of women who birth by caesarean section and are referred to the Breastfeeding Support Centre with breastfeeding difficulties?

#### INSTRUCTIONS TO STAFF ON ADMINISTERING THE PROTOCOL

**INCLUSION CRITERIA.**

- mothers aged 18 years and over
- referral to the Breastfeeding Support Centre with significant breastfeeding difficulty
- birth by caesarean section at term
- epidural or spinal regional anaesthesia
- interested in participating in the study

Women who are interested in participating in the study should be advised that their names and contact details will be given to the Principle Investigator, who will contact them to obtain consent, and to arrange a mutually convenient time to interview them within

**DETAILS OF ADVERSE REACTIONS WHICH MIGHT OCCUR AND INSTRUCTIONS TO STAFF ON MANAGING THESE EVENTS (including contra-indications etc.)**

Potential risks or adverse reactions which might occur include a possible minor level of stress associated with discussing or reviewing the woman's breastfeeding difficulty. This could be uncomfortable for the woman, and could perhaps contribute to depression or anxiety. Participation in the study is completely voluntary. The Principle Investigator can be contacted if adverse reactions occur after the study is offered to a woman, or complaints and concerns can be referred to Mater Ethics on 31631585 or the Patient Representative.

**DECLARATION** Signing below represents confirmation that the patient has consented to participate in this study.

.....  
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**Signature - Principal Investigator/Responsible Officer**

**Date**

**If you have queries, please contact the Principal Investigator.**

**If an adverse event occurs, you should follow Hospital policy and complete an Incident Report and then address HREC reporting requirements.**

*However, if you have any concerns about the ethical conduct of this research, you may contact the Service Director, Executive Director, Research Ethics Coordinator, Patient Representative or the Hospital Ethicist in confidence.*



## **Appendix IX**

### **INTERVIEW EXERT**

#### **Participant 6**

**When you had the caesarean did you get to hold the baby straight away?**

I think so. He was whisked away to the paediatrician. My husband went over and did the whole cord thing and everything and then came back and he was put on my chest and I started getting sleepy again so then they took him off, I think the anaesthetist assistant was holding him sort of there the whole time I wasn't hanging onto him because I had the blood pressure cuff on one arm and the drip in the other so it was like that, so I think she was just holding him there and then my husband held him after that. And then he was placed back on me in recovery

**And was he skin to skin or was he all wrapped up in his blankets?**

He was all wrapped up in his blankets. Yeah with a little beanie on, but they'd brought my robe down so I had my skin, yeah

**Great that's good. And then what happened after that. Did he go out to recovery at the same time as you?**

He came straight into recovery at the same time. And I was lying down with him, he was still all wrapped up and just had him on my chest yeah and the nurses were just looking after me and then I said, they said are, I can't remember what they said, are you ready to sit up or I wanted to sit up and they slowly put the bed up but then I felt nauseous from the movement so then he had to go back to my husband, and yeah I was a little bit sick

**Did you get a chance to try and breast feed him in recovery?**

No

**Was that because you were nauseated?**

I think nauseated and drowsy. So I don't remember going back in the lift back up to the room or anything

**Really, so you were quite drowsy?**

Yeah

**Can you tell me more about that?**

Yeah I was a bit out of it

**How did you feel about that?**

I think it affected him

**Can you explain that further?**

He was really docile that first 24 hours and I think that's just because of the extra drug that I might have had and I asked the midwife about it and she said yes that might be likely. And then the second day, oh you will probably start asking about that, he had the colostrum and yeah

**Right, so you were in recovery and you were nauseated and so forth, and then he didn't feed, so then you went back to the ward?**

Yes

**And did they try to help you to breast feed then?**

I honestly can't remember. I asked my husband and he said he doesn't think that I fed that first day. That he didn't have anything. He was really drowsy.

**What time of day did you deliver?**

9.11 in the morning. And then the next day I remember them squeezing my breast to get out some colostrum into a little injector tube (syringe) and putting that into his mouth

**So in that first 24 hours when he didn't go to the breast, was he keen to feed, was he crying or just asleep the whole time?**

No he was just pretty much asleep

**So you just sort of slept it off as well?**

Yes I think so

**How long did it take then before he would have had his first breastfeed?**

I think once I got the catheter out and I had a shower to sort of freshen up, I think pretty much after that I was in the chair and having the first breast feeding sessions

**How did that go?**

He wouldn't latch. No and from then on it was a point of he'd either scream or fall asleep

**Oh one extreme to the other?**

Yeah pretty much

**Oh, can you tell me more about that?**

So he was screaming because he wouldn't latch on and wouldn't suck and get enough and they said that he could suck, that there was nothing wrong with his sucking motion, he was just a lazy sucker, that he wasn't sucking hard enough to draw anything out

## Appendix X

### Exert from Reflective Journal

#### Participant 3

Today's interview was very emotional. Belinda had an emergency caesarean delivery and was still very distressed about her postnatal experience. Belinda seemed a quiet girl, but she became teary and upset as she recounted the story of her first night after delivery. She was not offered skin to skin time with her baby after birth or in recovery and says it was because she was "too out of it". She didn't get to hold her baby or try and breastfeed until a few hours later in the ward and then her baby was unable to latch. She remembers her baby crying all night and being unable to reach her or comfort her. She could not reach her nurse call buzzer as it had fallen on the floor. When the nurses came they seemed very busy and impatient while helping her to latch her baby but without success. Belinda started to cry quietly while recounting her experience, obviously still deeply affected by it. I offered to stop the interview but she chose to continue. I reassured her that sometimes it helps to talk about these things and she agreed. She said the baby had cried most of the night until her husband returned in the morning to cuddle her. How distressing must that experience have been for Belinda, listening to her baby crying inconsolably throughout the night and not being able to reach her to soothe her? How alone and afraid must her baby have felt to be separated from her mother and not to be picked up and cuddled? How much more happier and settled would she have been skin to skin on her mother's chest and perhaps attempting to feed? My pre understanding as a midwife and lactation consultant allows me to know the enormity and significance of this event for Belinda, yet I also feel shocked at how this could be allowed to occur. I also wonder how much more likely her baby would have been to breastfeed if she had spent more time skin to skin, rather than all that time crying and under stress. Belinda is still obviously affected by this even now.