

Women's experience of emergency caesarean birth

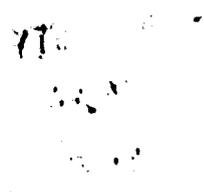
Helen Amanda Baston

RN, BA (Hons), RM, ADM, MMed Sci. PGDip Ed

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Department of Health Sciences
Mother and Infant Research Unit

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I dedicate this thesis to my mother, Hazel Walton.

Author's Declaration

I confirm that the work submitted is my own and that appropriate acknowledgement has been given where reference is made to the work of others.

Abstract

Introduction

This study explores the psychosocial consequences of emergency caesarean versus other modes of birth. It examines how antenatal expectations, intrapartum and postnatal experiences impact on the short and long-term health of women who have an emergency caesarean birth.

Aims

To understand how women evaluate their experience of emergency caesarean and what factors relate to that appraisal. To determine how women perceive their intrapartum care and carers in both the short and long term. To explore the sequelae of emergency caesarean birth.

Methods

A combined methods approach was used to follow a cohort of women who had taken part in a prospective survey of their intrapartum care in 2000. 738 women returned a postal questionnaire three years after the index birth and 21 women who had an emergency caesarean birth took part in in-depth interviews four years after the birth of their Millennium baby.

Findings

Women who had an emergency caesarean were more likely to appraise their birth experience negatively than women who had an elective caesarean, an instrumental or spontaneous vaginal birth, both six weeks and three years after the event. Predictors of this negative evaluation were, not feeling that the staff were supportive around the time of the birth, not always being treated as an individual and with respect and feeling that her life was in danger. A conceptual model was generated regarding the intrapartum care that enabled women to develop a sense of trust in their carers and was named 'intelligent guardianship'.

Discussion

The way that women are treated had a lasting impact on their evaluation of the birth. Pre and post registration education of maternity carers needs to focus on promoting effective engagement with women. Further research is needed to explore what personal, professional and organisational factors contribute to this process to inform strategic policy development.

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Glossary of terms

Caesarean birth	when the baby is born through a surgical incision in the mother's abdomen
Cephalo Pelvic Disproportion	when the baby's head is bigger than the woman's pelvis
Doula	an experienced labour companion who provides continuous emotional support before, during, and after birth
EPDS	Edinburgh postnatal depression scale: a 10-item questionnaire used to screen women for postnatal depression
Fetal blood sampling	blood is taken from the baby's head during labour to assess the pH of its blood. Depending on the result, a decision is made regarding whether to continue with the labour or to expedite the birth. It involves the woman having her legs in the lithotomy position and a vaginal examination
Follow up Questionnaire (FQ)	the pink questionnaire in the back pocket of the thesis Posted to women three years after the birth of their Millennium baby
Lithotomy	the woman lies on her back with her legs apart and her feet elevated and suspended in stirrups to enable the practitioner to access the external and / or internal genitalia
Look2cat	this is a recoded variable from the follow-up questionnaire, page 14, C30. The response options were collapsed into 2 categories: 'quite happy or very happy' and 'quite unhappy or very unhappy'. Those women with no particular feelings were excluded
Millennium baby	the baby born in 2000 (index birth)
Phenytoin	a drug used to control epilepsy (fits)
Placental abruption	where the placenta separates from the uterine wall, may result in severe bleeding, maternal collapse and fetal demise
Pro-intervention Score	Responses to questions about attitudes to 7 interventions (induction, forceps, acceleration, elective caesarean, pain relief, episiotomy and continuous electronic fetal monitoring) were scored and then summed
Second stage of labour	the phase of labour between full dilatation of the cervix and the birth of the baby, also know as the 'pushing' phase
Spontaneous rupture of membranes	when the fluid filled sac around the baby bursts
Symphysis Pubis Dysfunction (SPD)	abnormal relaxation of the ligaments supporting the pubic joint
Syntocinon	A synthetic oxytocic drug used to stimulate uterine contractions
Tokophobia	a dread of childbirt

CHAPTER 1: Introduction

1.1 Introduction

This thesis explores the impact of emergency caesarean birth on women's lives. It examines how women feel three years after their experience and what factors influence these emotions. It also considers how women feel looking back at their experience in relation to how they felt six weeks after the birth. In particular, issues relating to perceptions of care and carer and the impact of emergency caesarean birth on women's future reproductive decisions are investigated.

This is the only British study to date that has examined how antenatal expectations and intrapartum and postnatal experiences impact on the long-term health and well being of childbearing women, focusing in particular on those who have an emergency caesarean birth. It is an inclusive study looking at women of all parities, ages and social status. It employs a mixed methodology so that emerging patterns and associations between variables can be explored in rich detail. The central purpose of this study is to generate knowledge that will inform maternity care practice, education and policy. It is anticipated that the findings from this study will also inform the development of clinical practice in other emergency settings.

This introductory chapter is presented in two sections. Section 1 relates to the foundation of the study describing the cohort of women who were followed up three and four years after the index birth in 2000. Section 2 presents the research aim and questions and an outline of the thesis presented.

1.2 Section 1

1.2.1 Background

The study was conducted in the United Kingdom using data from women who gave birth in 2000. The researcher had access to data relating to these women's antenatal wants and expectations and intrapartum experiences by virtue of being co-grant holder on a large prospective study 'Greater Expectations?' (Green, Baston, Easton and McCormick 2003).

1.2.2 Greater Expectations?

This study was conducted in 2000 and led by Professor Josephine Green, replicating a previous study (Green, Coupland and Kitzinger 1998) conducted in 1987. It was concerned with women's

intrapartum experiences with the aim of exploring how these had changed in the 13 years between studies. Women completed three postal questionnaires, two antenatally at approximately 29 and 35 weeks of pregnancy and one six weeks after the birth: the methodology for ‘Greater Expectations?’ is described in chapter 3. One of the most notable differences between the two cohorts was the increased incidence of caesarean birth, with only 9% in 1987 compared with 21% in 2000 (table 1.1): concurring with national rates. What was particularly interesting was that, despite the rise in elective caesarean birth, there had not been a decrease in emergency caesarean, indeed the proportion of emergency caesarean births had increased.

Table 1.1: Mode of birth in 1987 and 2000

Mode of birth	1987 % (n=710)	2000 % (n=1278)
Planned caesarean birth	4	9
Unplanned caesarean birth	5	12
Instrumental birth	9	12
Unassisted vaginal birth	82	67

Analysis of the Millennium data also revealed that six weeks after the birth, women who had an emergency caesarean were less likely to be satisfied with their experience or to report that the birth had been fulfilling, than women who had other modes of birth. This raised issues about the nature of their experience and why it was that some women who had an emergency caesarean birth were left with a negative appraisal of events and others were positive, some very much so.

1.2.3 Personal experience

The results of ‘Greater Expectations?’ made me reflect on my own attitudes and experiences of birth. My own mother had three caesarean births, the first an elective procedure, the second (me) an emergency caesarean followed by a further elective caesarean. As a child, I remember hearing stories about my birth, how dreadful an experience it had been and how my mother thought ‘my baby must be dead’. She had suffered a protracted labour and received no information about her progress. She described her carers as cruel and her experience remains vivid 43 years later.

When I was pregnant with my first baby I was already a midwife. I hoped for a natural birth with no intervention. However, when I went into labour and ‘failed to progress’ despite regular contractions, I opted for an epidural in the ‘knowledge’ that a caesarean was on the cards. My

mother's experiences lowered my threshold for belief in my body's ability to give birth unaided. In the event, I had an instrumental birth and subsequently had a spontaneous vaginal birth three years later. I wondered how other women were affected by the experiences of family or friends and also, whether women who had already given birth vaginally and then went on to have an emergency caesarean, were more or less happy than women who had an emergency caesarean for their first child.

1.2.4 Health Foundation Fellowship

In 2002 the opportunity arose for me to apply to The Health Foundation (formerly The PPP Healthcare Medical Trust) for a Nursing and Allied Health Professions Research training Fellowship, with the aim of exploring my ideas. In order to do this, I needed to undertake some preliminary literature searching and develop my understanding of potential areas of investigation. Supported by my prospective supervisors at the Mother and Infant Research Unit (MIRU) I submitted a research proposal. The application was successful and enabled me to undertake a detailed exploration of women's experiences of childbirth.

1.3 Section two

1.3.1 Developing the research questions

Further to my involvement in the 'Greater Expectations?' study, I had a unique opportunity to follow a cohort of women on whom there were data relating to their antenatal aspirations and intrapartum experiences. By using a survey methodology (follow up questionnaire) I would be able to compare the experiences of women who had an emergency caesarean with women who experienced other modes of birth. I would be able to do this in the light of their antenatal wants and expectations. It was planned that these data would be complemented by in-depth interviews with a purposive sample of women who had an emergency caesarean birth, four years after the event.

The overall aim of the research was:

To examine the impact of emergency caesarean birth on women and
identify predictors of their long term perceptions.

The term 'long' incorporated both '3 years after the index birth' (quantitative and qualitative data from the follow up questionnaire) and 'four years after the index birth' (qualitative data from the

interviews). I feel that the term ‘caesarean section’ implies a medical procedure somewhat disconnected from the experience of birth. This thesis is concerned with the combined experience of surgery and birth and seeks to provide insight into this event, from the woman’s viewpoint. Commensurate with this sentiment and with the additional intention of enabling the reader to see caesarean from this perspective, I will refer to caesarean ‘birth’ rather than ‘section’ (except where direct quotes are used).

The term ‘impact’ encompassed a range of outcomes that led to the development of the research questions. The outcomes included;

- satisfaction and fulfillment 6 weeks postnatally
- how women felt looking back on their experience three years later
- the mother’s relationship with her baby
- Edinburgh postnatal depression scale (EPDS) at six weeks and three years
- Rosenberg’s self esteem score three years after the birth
- The mother’s desire to have more children
- How the birth is remembered three / four years later by the mother

1.3.2 Research questions

Three research questions were therefore generated which reflected the findings of ‘Greater Expectations?’, my own personal experience and a preliminary examination of the literature:

1. *What influences how women feel looking back at their experience of birth three years later?*
2. *Do women who have emergency caesarean birth have lower postnatal emotional wellbeing than other women?*
3. *How does women’s experience of birth impact on their decisions about future births?*

It was anticipated that further questions would arise from a structured review of the literature and from analysis of the follow-up questionnaire and the interviews. This iterative process was planned to develop a deep insight into women’s experience of emergency caesarean birth in the United Kingdom. The opportunity to follow a large cohort of women on whom there is both antenatal and postnatal data provides scope to explore these salient issues in a unique way.

1.3.3 Overview of the thesis

In this study new knowledge is generated about how mode of birth influences a woman's long term perception of her birth experience. This chapter has provided an overview of where the ideas for the research came from. Chapter 2 introduces the reader to emergency caesarean, from its origins and through its development, to how and why it is performed today in the United Kingdom. The importance of a clear definition of 'emergency caesarean' is highlighted before a structured review of the literature is presented, using five key questions to structure the review. In the light of the literature review, the research questions are revised. Chapter 3 presents the rationale for the use of a mixed methodology and outlines the design of the study. It begins by describing 'Greater Expectations?' the study on which the current study builds. It then describes 'phase 1: the postal follow up survey' and then 'phase two: in depth interviews'. The characteristics of the sample are then presented. Chapter 4 provides the reader with evidence of the diversity of women's experience of emergency caesarean. Three women are presented: 'Rachel' who felt very happy looking back on her experience; 'Sara' who had no particular feelings and 'Elizabeth' who was very unhappy looking back. Chapter 5 identifies the predictors of feeling unhappy with the birth experience looking back after three years using multivariable analysis. Models are first created that reflect the whole sample, irrespective of mode of birth. Then a further model is developed focusing on women who had an emergency caesarean birth. The sequelae of emergency caesarean birth is explored in Chapter 6 using data from in-depth interviews with women and from the questionnaires. In Chapter 7 women's perceptions of the staff are explored resulting in the development of a conceptual model 'intelligent guardianship' which related to the intrapartum care that enabled women to develop a sense of trust in their carers. The thesis concludes with Chapter 8 which comprises three sections: a critique of the methods; a discussion of the main findings; and the implications of the findings for service delivery, education, maternity policy and research.

The following chapter outlines the historical and contemporary context of caesarean birth and presents the results of the literature review.

In Britain, during the mid-nineteenth century, the overriding concern of the majority of obstetricians was the safety of the mother in preference to the survival of the fetus. Hence until the possibility of maternal survival became more likely, destructive procedures such as craniotomy predominated for cases of obstructed labour. At this time, maternal mortality rates for caesarean birth in Britain were more than 80% (Routh 1911) reflecting lack of experience, reluctance to intervene during early labour and poor antiseptic practices. In Europe, however, obstetricians began to embrace the concept of caesarean birth in favour of preserving life and delivering the fetus intact, probably strongly influenced by the doctrines of Catholicism, which predominated in these countries (Churchill 1997). Even in Europe, caesarean birth remained a highly hazardous procedure particularly for the mother, with more than half of women experiencing the procedure dying (Francome, Savage, Churchill and Lewison 1993).

2.3 Development of caesarean technique

The caesarean technique in the mid nineteenth century was fundamentally flawed, usually involving hysterectomy (Drife 2002) and gaping wounds, resulting in infection and haemorrhage. It was not until the introduction of sutures for uterine closure by the German Max Sanger in 1882 (Hem and Bordahl 2003) that the maternal mortality associated with caesarean birth was substantially reduced and the notoriety of the caesarean was greatly improved. This technique became known as the 'classical' caesarean section and involved a vertical abdominal incision and separate closure of the uterus, peritoneum and abdominal wound (Churchill 1997).

Techniques continued to improve with the concept of making a low transverse incision at the level of the internal os being described in 1882 by Kehrer (Lurie and Glezerman 2003). This idea was further developed with the advent of the transverse lower uterine segment incision¹, which healed faster and was less likely to become infected. This incision also led to the formation of a stronger scar than the classical method, with less likelihood of rupture during a subsequent pregnancy. However, this technique, although suggested at the turn of the century (Lurie and Glezerman 2003) was not widely adopted in Britain until introduced by Kerr in 1926 (Kerr 1926). The method of incising the skin and fascia transversely was introduced by Pfannenstiel in 1900 and remains the method of choice today (Lurie and Glezerman 2003). This 'bikini line' incision is less painful than the classical incision and the subsequent scar is less conspicuous.

¹ The lower segment of the uterus develops at about 28-30 weeks of pregnancy. It has a lower smooth muscle content than the main body of the uterus and is less vascular (Coad and Dunstall 2001)

It is interesting that, despite increasing evidence that the new techniques were superior to the old, they were not adopted with haste. Odent (2004) describes the introduction of the 'low segmental' technique in the 1950s in France. He suggests that it was slow to be adopted because obstetricians were reliant on their surgical colleagues for assistance and reluctant to compromise their own credibility and status. Research into new practices continues to provide evidence of alternative more effective techniques, including: non-closure of the subcutaneous tissue (Stark and Finkel 1994); blunt expansion of the uterine incision (Rodriguez, Porter and O'Brien 1994); non-closure of the peritoneum (Irion, Luzuy and Beguin 1996) and single layer uterine closure (Enkin and Wilkinson 2000). How many of these approaches have been adopted remains to be seen, as many obstetricians are likely to continue to use those methods with which they feel confident (Field 1988).

2.4 Caesarean birth rates in the late 20th – 21st centuries

Once a rare procedure, occurring in fewer than 3% of births in the 1950s (Government Statistical Service 2005), caesarean birth rates have risen rapidly in recent times. International caesarean rates vary widely between countries, exceeding 50% in Mexico, Chile and Columbia (Flamm 2000). In private hospitals in Brazil, 70% of births are by caesarean (Finger 2003). The caesarean birth rate in the UK has risen from 12% in 1990-91 to 21% in 2000-01 and now comprises 23% of all births (Government Statistical Service 2005). The World Health Organisation (1985) however, continues to recommend that a rate above 10-15% is unjustified on health grounds. The rise in caesarean birth rates has been a cause of concern both nationally (Thomas and Paranjothy 2001) and internationally (Flamm 2000). Various strategies have been employed to reduce such rates, including; external cephalic version (for babies who present by the breech), one to one support in labour and facilitating vaginal birth after previous caesarean (Walker, Turnbull and Wilkinson 2002). Their success, however, will depend on the prevailing cultural and social circumstances as well as the attitudes of the obstetricians and the women they care for.

2.5 Caesarean birth today in the United Kingdom

2.5.1 Defining emergency caesarean birth

Caesarean birth is often classified in two categories: 'elective' (planned) or emergency (all others) (Lucas, Yentis, Kinsella, Holdcroft, May, Wee and Robinson 2000). An emergency caesarean has also been defined as one that is performed when 'adverse conditions develop during pregnancy or labour' (Hamilton 2003, page 585). The use of these categories is problematic, as in practice they can overlap or interchange. A planned procedure can become an emergency and an emergency

case can have to 'book' theatre space in advance. There are a range of scenarios that are not adequately described by the use of either term. For example.

A woman is undergoing induction of labour. The cervix has not dilated at all in the last three hours, despite augmentation with oxytocin. She has an epidural in situ and is quite comfortable, the fetal heart rate is continuously monitored and is reactive and within normal parameters. The decision is made that caesarean birth is the only option. However, theatre is busy due to an emergency admission. Her epidural is topped up and she gets some sleep. Two hours later the baby is in her arms.

The caesarean in the above scenario was clearly not an elective or an emergency procedure. It would have been recorded as an 'emergency' caesarean as would a similar operation for severe fetal compromise. Lack of clear categorisation of the perceived urgency of a caesarean makes it difficult to compare data pertaining to women who undergo non-elective surgery. Thomas and Paranjothy (2001) suggest that local definitions have led to inconsistencies of data between hospitals.

A clear definition is particularly important in view of the requirement of the 'Clinical Negligence Scheme for Trusts' (CNST) to provide data regarding 'decision to delivery' times for caesarean birth against a standard (National Health Service Litigation Authority 2005, page 78). This standard is often taken to be 30 minutes (Royal College of Obstetricians and Gynaecologists 2001). The use of this target has been contested due to the wide range of clinical situations that arise within obstetrics and the lack of evidence to support its value (MacKenzie and Cooke 2002, Tuffnell, Wilkinson and Beresford 2001). It is clearly inappropriate to attempt to undertake all 'emergency' caesareans within 30 minutes. As Kinsella, Lucas, Yentis, May, Wee and Robinson (2001) point out, it could even be counter-productive if 'undue haste is used to achieve a pre-selected interval that is not clinically warranted' (page 931).

It is therefore important that a simple classification of 'urgency' for caesarean is adopted to enable data to be evaluated appropriately and to avoid over zealous implementation of CNST standards. Endeavouring to address this issue, a group of anaesthetists practising in the UK (Lucas, Yentis, Kinsella, Holdcroft, May, Wee and Robinson 2000), developed and evaluated a classification system based on the use of 4 grades (table 2.1). This classification was used in the Sentinel audit (Thomas and Paranjothy 2001, page 49) and The House of Commons Health Committee (2003) recommended its continued use.

Table 2.1: Classification of urgency of caesarean birth

Grade	Definition
(1) Emergency	Immediate threat to life of woman or fetus
(2) Urgent	Maternal or fetal compromise which is not immediately life threatening
(3) Scheduled	Needing early delivery but no maternal or fetal compromise
(4) Elective	At a time to suit the woman and maternity team

(Lucas et al 2000, page 349)

The term ‘emergency’ caesarean is rarely explicitly defined in the research literature. However, one notable exception was made in a study exploring the relationships between mode of delivery and neonatal and parental behaviour interaction (Kochanevich-Wallace, McCluskey-Fawcett, Meck and Simons 1988). The definition they used for their study states;

‘an emergency cesarean section was defined as a first born delivery with a spontaneous labour of at least 3 hours that resulted in an unplanned surgical delivery’
(page 216)

Such a definition, however, is clearly not universally applicable. Other terms that have also been used include; ‘non-elective’ (MacKenzie and Cooke 2002), ‘unplanned’ (Chen and Wang 2002) and ‘crash’ (Tan, Tan, Tan and Tan 2003).

Whilst it is clearly important that emergency caesarean is precisely defined from a clinical point of view, it is particularly so when researching the impact of surgical birth on women’s health. Likewise, definitions of elective caesarean have been less than clear. Tilden and Lipson (1981) in their study exploring the variables affecting the psychological impact of caesarean birth, considered women who had had a lengthy trial of labour and blood gas analysis to have had ‘elective’ surgery. Other researchers dismiss the need to distinguish between emergency and elective surgery, contending that the procedure for emergency caesarean is similar to that of elective surgery (Salmon and Drew 1992, p324). It is important to discern between emergency and elective procedures as it has been reported that women who have emergency surgery are more likely to suffer negative emotional sequelae than those who have elective caesareans (Cranley, Hedahl and Pegg 1983; Green, Baston, Easton and McCormick 2003). Studies that group the two

modes of birth together (Culp and Osofsky 1989, Fisher, Astbury and Smith 1997), or exclude elective caesarean birth (Boyce and Todd 1992) fail to detect potential differences between them.

The importance of defining emergency caesarean is a concern for both clinicians and researchers: how the event is defined by women has also been raised as an issue. The language used by professionals may be taken home and incorporated in their childbirth narrative. Sargent and Stark (1987) interviewed 35 women within 72 hours of their 'emergency' caesarean birth. Most women (69%) described the event as both surgery and childbirth, 22% as surgery and only 9% as wholly childbirth. These differences were in part attributed to the way that staff treated them. In a critique of Marut and Mercer's study (1981) which compared women's perceptions following emergency caesarean and vaginal birth, Rich (1981) highlights the wide variation in understanding and perception of the term 'emergency caesarean birth' using the words 'urgent' 'immediate' etc to illustrate her point. Mercer responded by agreeing that perhaps 'unanticipated' would have been more appropriate.

For the purposes of this thesis I shall use the term 'emergency' caesarean birth to include all caesareans that were *other* than 'planned and carried out before labour'. This was the definition of elective caesarean given as an option in the original survey (Green, Baston, Easton and McCormick 2003) as it was the convention at that time (Lucas et al 2000). I will distinguish between emergency and elective caesarean when reporting outcomes.

2.5.2 Caesarean birth in the United Kingdom

Looking at the current context of intrapartum care in the United Kingdom, women who have a caesarean birth are likely to be cared for in a maternity unit with midwifery, obstetric, anaesthetic and paediatric disciplines working together to support the needs of the family unit. In 2003-04, 11% of women had elective caesareans with more than 92% of all caesareans being conducted under regional anaesthesia (Government Statistical Service 2005). Women are generally healthy when they have their caesarean although some will be suffering from complications of pregnancy and/or from existing morbidity.

The current caesarean birth rate of 23% (Government Statistical Service 2005) means that it is likely that most pregnant women know someone who has undergone this procedure (see Appendix 1 for a description of what the procedure involves in a UK maternity unit). Women who experience caesarean birth today do so within a culture that regards this mode of birth as a safe, sometimes preferable alternative to vaginal birth. This position was highlighted following an anonymous postal survey of London obstetricians working in the National Health Service

caesarean (Al-Mufti, McCarthy and Fisk 1996). In response to a question regarding their preferred mode of birth with an 'uncomplicated singleton, cephalic presentation at term', 31% of the female obstetricians said that, if they were pregnant, they would choose an elective caesarean.

The long term consequences of primary elective caesarean versus vaginal birth for low risk women and their babies have not been prospectively measured in a randomised-controlled trial. A trial of this nature would be unethical as it would potentially expose those women in the surgical arm to a prolonged postnatal recovery, increased incidence of infection and haemorrhage and complications in future pregnancies. Health services across the world often operate within a tight financial budget. To conduct a trial involving unnecessary surgery would be unethical in terms of the resources required to run such a trial. In addition, in the unlikely event that surgical birth was found to be preferable to vaginal birth, it would follow that ethically, surgical birth should be offered to all women. This course of action would have considerable resource implications. Also, those women who might agree to take part in such a trial would not be representative of the general child bearing population. Ecker (2004) argues that if women were counselled about the possible risks and benefits of participating in such a trial and if interim analyses were conducted, then the trial would be ethical. Such views are not universally held and differ between professional groups. In a postal survey of consultant obstetricians and heads of midwifery (Lavender, Kingdon, Hart, Gyte, Gabbay and Neilson 2005) views were sought about whether such a trial would be ethical: 70% of Heads of midwifery and 56% of obstetricians thought not. However, after accounting for missing data, 35% of obstetricians and 21% of Heads of midwifery thought such a trial would be ethical reflecting a considerable shift away from the government and midwifery professional aspiration towards increasing normal birth rates.

2.5.3 Why women have a caesarean birth

In response to concerns about the rising caesarean birth rate in the United Kingdom, the National Sentinel Caesarean Birth Audit was undertaken by the Royal College of Obstetricians and Gynaecologists (Thomas and Paranjothy 2001). In addition to the collection of clinical data, women and obstetricians were surveyed about their views of childbirth, including their priorities for maternity care. One of the aims of the audit was to explore the determinants of caesarean birth. It concluded that the main primary indications for caesarean as reported by clinicians were: presumed fetal compromise (22%), failure to progress in labour (20%) and previous caesarean (14%). The caesarean birth rate was 88% for breech presentations and 59% for twin pregnancies. Maternal request, which is increasingly being cited as a reason for the increase in the caesarean birth rate (Devendra and Arulkumaran 2003; Singer 2004; Singh, Justin and Haloob 2004), accounted for 7% of caesarean births according to the clinicians (Thomas and Paranjothy 2001).

page 17). However, results from the maternal survey revealed that 5.3% of women would prefer a caesarean birth, and these comprised mainly women who had already had a baby by this method (op. cit. p 95).

The National Sentinel Caesarean Birth Audit (Thomas and Paranjothy 2001) also found that women were more likely to have a caesarean birth with advancing maternal age: only 7% of women under 20 years old had a caesarean compared with 17% of women who were over 35 years old. Weaver, Statham and Richards (2001) argue that the perception that older women are more likely to experience complications during labour could give rise to 'an increased willingness' (page 284) of both women and obstetricians to proceed to a caesarean. They conclude:

Older women do have extra problems, but concern about complications might be as much of a problem as the complications themselves (page 285).

A retrospective review of obstetric data relating to 428 women in Aberdeen (Bell, Campbell, Graham, Penney, Ryan and Hall 2001) concluded that obstetric complications (e.g. malpresentation, antepartum haemorrhage, induction of labour) did not explain the higher levels of intervention (including caesarean birth) in older women.

It has been reported (Tuck, Cardozo, Studd, Gibb and Cooper 1983, Government Statistical Service 2005) that black women (African and Caribbean) have a higher incidence of emergency caesarean birth compared with white women. Findings from the National Sentinel Caesarean Birth Audit concluded that the proportion of caesarean births was higher for women who were black African (31%) or black Caribbean (24%) compared with white women (21%). The indications for caesarean birth in these women were explored and were seen to relate to a higher proportion of maternal medical disease and fetal distress.

Parity is also a significant factor in the incidence of caesarean birth. The results of the National Sentinel Audit showed that the primary caesarean birth rate in England was 24% for primigravid women and 10% for multiparous women. Of the women who had a previous caesarean the repeat caesarean rate was 67%.

The socio-economic status of women is also a predictor of caesarean birth. Using the index of multiple deprivation 2000, Barley, Aylin, Bottle and Jarman (2004) found that women living in the most deprived areas of England had significantly reduced odds (0.86) of having an elective caesarean birth when compared with more affluent women. There were no differences for emergency caesarean. In a prospective longitudinal study involving a cohort of 22,948 women,

Hall, Campbell, Fraser and Lemon (1989) found that women in social class I-IIIa (measured by the husband's occupation) were significantly more likely to have had a caesarean for the birth of their first baby than other women.

2.5.4 Physical sequelae of caesarean birth

2.5.4.1 *The mother*

Abdominal surgery carries the potential life threatening risks of anaesthetic complications, haemorrhage, thromboembolism and infection and caesarean section is no exception. In a review of the evidence relating to mortality rates and caesarean birth, Jackson and Paterson-Brown (2001) found that the procedure was associated with up to five times the mortality for vaginal birth and that emergency caesarean section was associated with almost twice the risk of an elective caesarean.

Of less significance but of greater prevalence is the morbidity associated with caesarean birth. Hillan (1992c) explored short-term morbidity in 444 women, three months after their caesarean birth. Women's problems included; tiredness (62%), backache (43%), sleeping problems (32%) wound infection (21%), depression (25%) and urinary tract infection (16%). There was no comparison with women who had a vaginal birth, however, comparisons were made between those who had an emergency caesarean and an elective procedure. She found that the incidence of chest infection, uterine infection and wound infection was increased in women who had emergency surgery. Paterson and Saunders (1991) audited the obstetric management of women who had had a previous caesarean birth. They found that both elective and intrapartum caesarean section were associated with a significantly higher rate of postnatal infection than vaginal birth (14.7% and 16.0% and 3.4% respectively).

Caesarean birth has also been associated with lower fertility (Hemminki, Graubard, Hoffman, Mosher and Fetterly 1985) and complications in future pregnancies including: an increased risk of ectopic pregnancy; placenta previa and placental abruption in subsequent pregnancy (Hemminki and Merilainen 1996). As already mentioned, one caesarean often leads to another and there are complications associated with repeat caesarean birth including ruptured uterus (Chauhan, Martin, Henrichs, Morrison and Magann 2003) and placenta previa (Gillian, Rosenberg and Davis 2002).

2.5.4.2 *The baby*

Babies born by caesarean are more likely to have complications at birth but the majority of these will relate to the indication for caesarean rather than to the surgery itself. There are some potential

risks however, including laceration during surgery, reported as 1.9 % (Smith, Hernandez and Wax 1997) and transient tachypnoea of the newborn (Baston and Durward 2001).

2.5.5 Summary of context

It has been seen how caesarean birth has developed from a rare and dangerous procedure to one that is performed on 23% of pregnant women in the UK. Although women who have a caesarean birth are at more risk of developing physical morbidity than women who have a vaginal birth, they expect to survive it and go on to care for their new baby. The extent to which caesarean gives rise to psychosocial sequelae remains unclear and is the focus of the following literature review.

2.6 Literature review

2.6.1 Methods

The main objectives of the literature review were to:

- Critique and summarise the results of primary research which explored the impact of emergency caesarean birth on women's subsequent psychosocial wellbeing
- Identify gaps in existing knowledge and suggest themes for future research

2.6.2 Outcomes

Studies were included that presented outcomes relating to women's emotional well being and her social interaction with her baby. For the purposes of this study these were grouped under the broad heading of 'psychosocial well being'. A list was drawn together of the main outcomes of interest and these were used as search terms (see figure 2.1).

2.6.3 Searching the literature

An initial search of the literature combining simple terms (e.g. caesarean and depression) enabled further useful terms to be identified to produce a comprehensive search strategy. A librarian was consulted to ensure that the search strategy was capturing the most salient papers and further modifications were made to include Boolean terminology. In addition, key researchers in the field were added to the search by name. The final search strategy is given in Appendix 2. The electronic databases Cochrane, Medline, PsycINFO and CINAHL were searched. Additional papers were also identified from reference lists in key papers.

2.6.3.1 *Timing of the literature review*

The literature search was undertaken in June 2004 and the subsequent review of that literature was completed in the following months. As the review was undertaken to inform the design of the study it has not been subsequently updated for the purpose of writing this chapter. However, further relevant literature has been continuously appraised and is incorporated throughout the thesis.

The inclusion criteria for the literature search were:

Design:	Research study using any methodology
Time frame:	All – June 2004
Type:	Published papers
Language:	English
Outcome measures:	Measured postnatal psychosocial wellbeing [satisfaction, fulfillment, depression, anxiety, self-esteem, confidence, relationship with the baby]
Sample:	Clearly distinguished between women who had an emergency caesarean and those who had an elective caesarean. Papers were excluded from this review where emergency and elective caesarean were combined for analysis. Either primiparous or both primiparous and multiparous women.

2.6.4 *Retrieving and screening papers*

The search yielded 1854 citations for initial screening which were downloaded or added by hand to an EndNote database. The abstracts were read if available and screened for potential inclusion using the above criteria. Where an abstract was not available or was vague in its content, and a paper seemed potentially useful, the full paper was sought at this stage. Otherwise, full papers were only retrieved for salient citations. This screening process yielded 168 potentially relevant papers, which were read and considered for the review. A further 34 papers were identified from reference lists. The majority of papers that were subsequently excluded either did not differentiate between elective or emergency caesarean or did not measure psychosocial outcomes. For example, one paper was identified which presented results of meta analysis of caesarean birth and psychosocial outcome (DiMatteo, Morton, Lepper, Damush, Carney, Pearson and Kahn 1996) however, elective and emergency caesarean were combined and it was therefore not included in this review.

Two Word documents recorded which papers were included or excluded along with a brief rationale.

2.6.5 Data extraction and quality appraisal

A number of systems were developed for data extraction. Three data extraction forms were developed, piloted and discarded before one was created that captured the essence of the studies being read. Identified papers were then categorised into:

- (1) *core comparative* – those papers that presented results which compared women who had experienced emergency caesarean birth with other mode(s) of birth and mode of birth was the main independent variable
- (2) *comparative* – those papers that presented results which compared women who had experienced emergency caesarean birth with other modes of birth but mode of birth was not the main independent variable
- (3) *descriptive* – those papers that described women's experience of emergency caesarean birth but did not compare them with those of other women.

The results of this categorisation, along with key words and notes were entered onto the EndNote database, to enable easy searching and collation. Further Word tables were created for each category of paper, collating the outcomes of each paper. No paper was excluded on the basis of its quality or the apparent quality of the study it reported. This was to enable the full extent of the literature to be discussed and the gaps and deficiencies exposed. Where quality was of concern, this is highlighted in the review. Figure 2.1 provides a summary of the process and results of the literature review.

The papers are presented under the following five key questions:

- Q What are the psychosocial sequelae of emergency caesarean birth on women in the first six weeks after the birth? [e.g; relationship with baby, satisfaction, depression, self-esteem]
- Q What are the psychosocial sequelae of emergency caesarean birth after six weeks? [e.g; relationship with child, decisions about subsequent births, depression, self-esteem]
- Q How do antenatal factors relate to subsequent psychosocial well being [e.g. expectations, attitudes, attendance at preparation for childbirth classes]
- Q How do events in labour relate to subsequent psychosocial well being [e.g; decision-making, pain relief, length of labour, indication, anaesthesia, support]
- Q How do postnatal events relate to subsequent psychosocial well being [e.g; postnatal care, support, physical health]

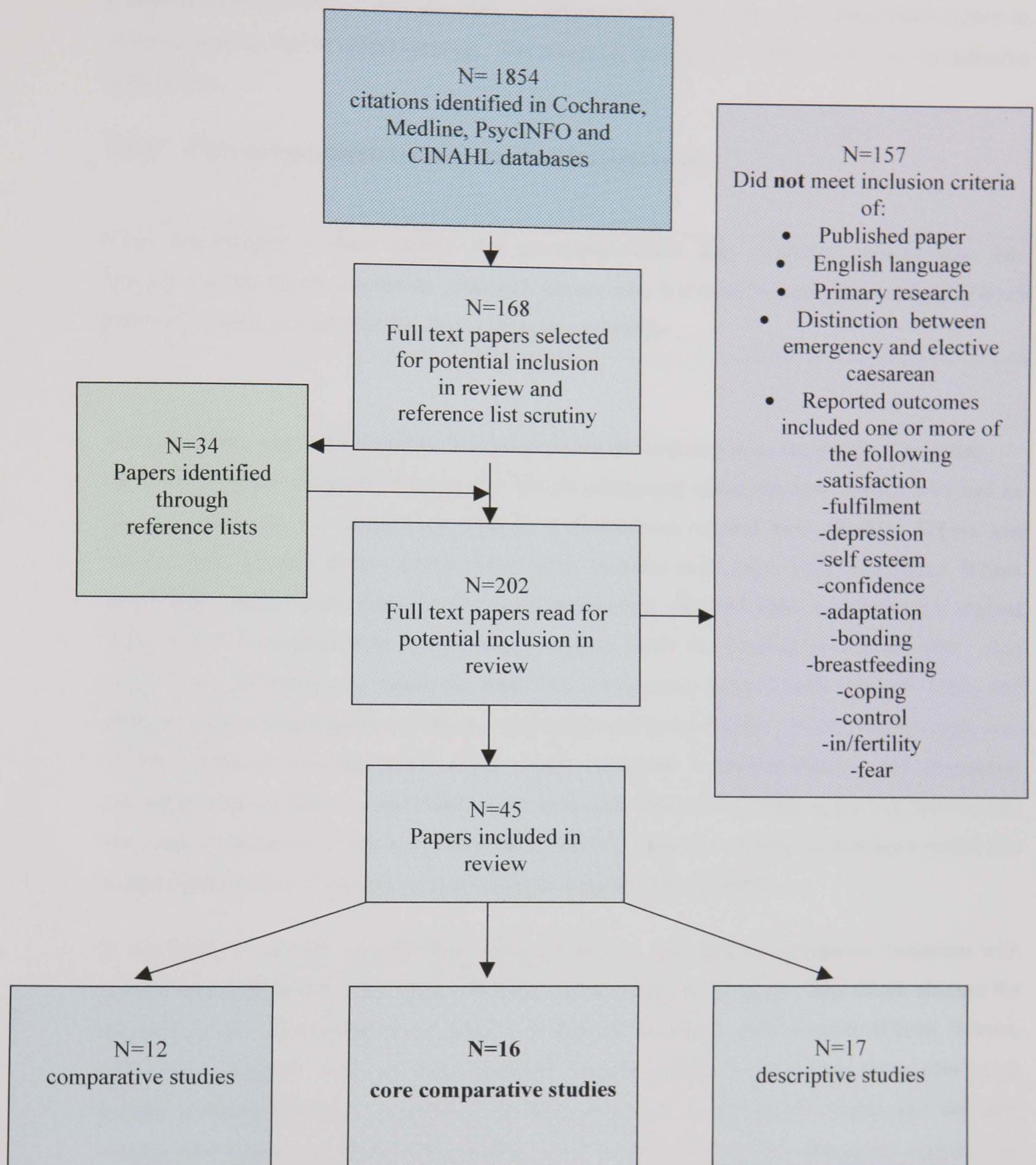


Figure 2.1: Literature review study eligibility flow chart

I will focus principally on the data from the core comparative studies, as they will expose how emergency caesarean birth impacts on women's psychosocial well being in comparison with other modes of birth. However, I will also draw on data from the comparative and descriptive studies in order to provide further understanding. The tables in this chapter relate to the core comparative studies only.

2.6.6 Core comparative studies - methodological issues

Core comparative - those papers that presented results that compared women who had experienced emergency caesarean birth with women who had experienced other mode(s) of birth and where mode of birth was the main independent variable

Sixteen studies were identified which met the criteria for inclusion as a core comparative study.

Only three studies compared women who had an emergency caesarean with women who had an elective caesarean, an instrumental birth or a spontaneous vaginal birth (Ryding, Wijma and Wijma 1998; Schindl, Birner, Reingrabner, Joura, Husslein and Langer 2003; Soderquist, Wijma and Wijma 2002). Most studies (n=10) combined women who had either a spontaneous vaginal birth or an instrumental birth and presented analysis under the heading of 'vaginal birth'. One study compared emergency caesarean birth with spontaneous vaginal birth (Trowell 1982) and another compared emergency caesarean with elective caesarean (Hillan 1992b). Another study was included because, although most of the results compared combined elective and emergency caesarean with combined vaginal birth, there were some distinctions made in the text between the two types of caesarean (Chen and Wang 2002). Table 2.2 lists the 16 core comparative studies and presents the number of women included in each study by mode of birth.

In the quest to identify research that compared women who had an emergency caesarean with women who experienced other modes of birth, methodological issues emerged which obscure the real picture. The main problem was a failure to analyse the data by distinct mode of birth. Women who have a 'vaginal' birth are often analysed together (which could include those who has a forceps delivery, ventouse or breech extraction as well as a spontaneous birth) and similarly women who had a 'caesarean' birth (which could include elective and emergency surgery) are grouped together. Thus, when looking at the psychosocial sequelae of the mode of birth, for example, the impact of emergency caesarean could be diluted by the positive experience of elective surgery and the wellbeing experienced by women who have a spontaneous vaginal birth is potentially weakened by the effect of instrumental birth. This phenomenon was observed in a study conducted by Waldenstrom, Borg, Olsson, Skold and Wall (1996).

Table 2.2: Number of women by mode of birth in the core comparative studies.

Author(s)	Year of Publication				Emergency caesarean	Elective caesarean	Instrumental birth	Spontaneous vaginal birth	Caesarean combined	Vaginal combined	totals
	< 1980	1980-89	1990-99	2000-04							
Bradley, Ross et al 1983		√			28					97	125
Chen & Wang 2002 ²				√	Not stated				81	194	275
Cranley et al 1983		√			39	43				40	122
Durik et al 2000				√	56	37				74	167
Fawcett et al 1992			√		106	113				254	473
Field & Widmayer 1980		√			20					20	40
Garel et al 1987		√			'63' ³	40			[103]	103	206
Hillan 1992a, 1992b			√		50					50	100
Kochanevich-Wallace et al 1988		√			20	20				40	80
Maclean et al 2000				√	10		10	20			40
Marut & Mercer 1979	√				20					30	50
Padawer et al 1988		√			22			22			44
Ryding et al 1998			√		71	70	89	96			326
Schindl et al 2003				√	93	147	41	769			1050
Soderquist et al 2002				√	75	70	86	1319			1550
Trowell 1982, 1983		√			16			18			34
Total number of women studied					969	704	226	2244	81	902	5126

² but some results differentiated between emergency and elective caesarean birth³ presented in the text as '61%' of all the women who had a caesarean birth (n=103)

Grouping variables together for analysis is a problem associated with studies that are underpowered. Hence, even where the researchers have distinguished between modes of birth during data collection, they are sometimes grouped together for analysis to avoid the problem of small cell size. Most of the core studies were undertaken during the 1980s when the incidence of caesarean birth was low, making it difficult to recruit large numbers.

The experience of emergency caesarean birth is likely to be culturally mediated, both from an ethnicity and societal point of view. The prevalence of the procedure within a culture will influence the extent to which it is seen as an accepted 'norm', therefore it is important to know the background rate in the country to help interpret the results of the study. Whilst acknowledging that this is not always possible, few studies described the emergency caesarean section rate in the country in which the study was conducted or how it had changed in recent years. Only one study was conducted in the UK in the last ten years (Maclean, McDermott and May 2000) and this was small with only ten women in each comparison group. Table 2.3 presents the country, design and timing of data collection in the core comparative studies.

The studies described in this review involved the collection of data at a range of different time points (see table 2.3). Conducting interviews whilst the woman is still in hospital is a convenient means of collecting data. However, it has been reported that women are less likely to give unfavourable responses when they are still receiving care (Waldenstrom, Borg, Olsson, Skold and Wall 1996). Women are also reported as more likely to give positive responses nearer the birth than they do as time elapses, a phenomenon described as the 'halo effect' (Simkin 1992; Waldenstrom, Borg, Olsson, Skold and Wall 1996). It is difficult to differentiate between postnatal depression and altered mood due to lack of sleep in the first few weeks following the birth. The use of validated tools helps circumvent this problem.

Positive expectations are associated with positive experiences (Green, Coupland and Kitzinger 1998) yet very few studies were able to look at this association and how it was distributed in women who give birth by different means. Only three of the core comparative studies collected antenatal data (Bradley, Ross and Warnyca 1983; Ryding, Wijma and Wijma 1998; Schindl, Birner, Reingrabner, Joura, Husslein and Langer 2003). It would also have been valuable to have had knowledge about women's psychological health prior to the birth.

Approximately half of the core comparative studies were restricted to women experiencing motherhood for the first time (Marut and Mercer 1979; Trowell 1982; Bradley, Ross and Warnyca 1983; Garel, Lelong and Kaminski 1987; Padawer, Fagan, Janoff-Bulman, Strickland and Chorowski 1988; Maclean, McDermott and May 2000; Chen and Wang 2002).

Table 2.3: Country, design and timing of data collection in the core comparative studies.

Author(s)	Country	Design	Timing of data collection			
			antenatal	Less than 1 week postnatal	1-6 weeks postnatal	Over six weeks postnatal
Bradley, Ross et al 1983	Canada	Longitudinal survey	20 weeks	hospital	4 weeks	
Chen & Wang 2002	Taiwan	Descriptive survey			6 weeks	
Cranley et al 1983	USA	Case-control survey		48 hours - 4 days		
Durik et al 2000	USA	Case-control longitudinal	2 nd trimester		4 weeks	4 & 12 months
Fawcett et al 1992	USA	Case-control longitudinal		24-48 hours	6 weeks	
Field & Widmayer 1980	USA	Case-control longitudinal		Hospital		4 & 8 months
Garel et al 1987	France	Case-control longitudinal ⁴		3-6 days		
Hillan 1992a	UK	Case-control longitudinal		3-4 days		3 & 6 months
Kochanevich-Wallace et al 1988	USA	Case control observational		48 hours		
Maclean et al 2000	UK	Case-control survey			6 weeks	
Marut & Mercer 1979	USA	Case-control survey		48 hours		
Padawer et al 1988	USA	Case-control survey		48 hours		
Ryding et al 1998	Sweden	Case control longitudinal		Hospital	4 weeks	
Schindl et al 2003	Austria	Longitudinal survey	38 weeks	36 hours		4 months
Soderquist et al 2002	Sweden	Survey			Over 4 weeks	
Trowell 1982, 1983	UK	Case-control longitudinal			4 weeks	1 & 3 years

⁴ Garel followed women at 2 months, 1 year and 4 years and published the results in 1988 and 1990. In these papers, elective and emergency caesareans were grouped together and were therefore excluded.

The potential impact of emergency caesarean birth on a woman who has previously experienced vaginal birth and who is therefore likely to have an expectation that she will again, should not be overlooked. The multiparous woman will also recover in a different social context. She may be older, have another child or children to care for and be more likely to be expected by her peers and carers to be ‘experienced’ and not require the same level of support as a first time mother. Even in studies where both multiparous and primiparous women were included, they were often grouped together for analysis. Women who have already had a baby, are likely to view their experiences in the light of previous ones and should be considered separately where sample size allows.

A critique and outline of the methods of each core comparative study are presented in Appendix 3. The studies use a range of different measures to assess psychosocial outcomes, some of which have been validated for use (e.g. The Edinburgh Postnatal Depression Scale) and others that were devised by the researcher for that study (e.g. Hillan 1992a). Such a diverse range of assessment measures made comparison between studies difficult. Few studies detailed the precise nature of the measures used, which rendered it difficult to assess the validity of the results presented. Only half of the studies stated the year in which data were collected which made it difficult to interpret the results in the context of prevailing clinical practices and political climate.

The following section presents the results of the literature review using the research questions as headings. Core comparative data are considered primarily, and where more than one study provides evidence under that heading, tables are used to summarise these data. Data from corroborative studies providing evidence under that heading are then presented.

Results of the literature review

Question 1: *What are the psychosocial sequelae of emergency caesarean birth on women in the first six weeks after birth?*

The results are categorised under five psychosocial outcomes:

- Satisfaction / perception of the birth (table 2.4)
- Depression / anxiety / self-esteem / post traumatic stress disorder (table 2.5)
- Attitude to baby (table 2.6)
- Breastfeeding (table 2.7)
- Attitude towards having another baby

2.6.7 Satisfaction and perception of the birth

Most (12/16) core comparative studies concluded that emergency caesarean birth was associated with a negative perception of the birth compared with elective caesarean and vaginal birth (table 2.4). However, two studies (Maclean, Dermott and May 2000; Schindl, Birner, Reingrabner, Joura, Husslein and Langer 2003) found that women who had an instrumental birth were most likely to be dissatisfied with their experience.

Table 2.4: Satisfaction / perception of the birth in core comparative studies

Author	Timing of data collection	Satisfaction / Perception of the birth in the first six weeks
Bradley, Ross et al 1983	Hospital	Emergency caesarean women more dissatisfied with the method of birth than women who had a vaginal birth ($p < 0.02$)
Cranley et al 1983	2 – 4 days	Emergency caesarean women more negative perception of birth than women who had an elective caesarean or vaginal birth (35%, 9% and 5% resp)
Durik et al 2000	1 month	Emergency caesarean women more negative perception of birth than women who had an elective caesarean or vaginal birth ($p = 0.001$)
Fawcett et al 1992	1-2 days	Emergency caesarean perceived more negatively than vaginal birth ($p = 0.02$); no difference between elective and emergency
Field & Widmayer 1980	Hospital	Emergency caesarean women more negative perception of birth than women who had a vaginal birth
Garel et al 1987	3-6 days	Women who had an elective caesarean were more satisfied (25%) than women who had an emergency caesarean (7%) ($p < 0.05$)
Maclean et al 2000	6 weeks	Women who had an instrumental birth were the most distressed compared with spontaneous vaginal , emergency and elective caesarean birth
Marut & Mercer 1979	2 days	Emergency caesarean women more negative perception of birth than women who had a vaginal birth
Padawer et al 1988	2 days	Emergency caesarean women more negative perception of birth than women who had a vaginal birth
Ryding et al 1998	In hospital 1 month	Emergency caesarean women more negative perception of birth than women who had a vaginal birth, elective or emergency caesarean.
Schindl et al 2003	3 days	Women having an instrumental or emergency caesarean birth expressed strong negative feelings and the worst birth experience compared to women who had a spontaneous vaginal or elective caesarean birth.
Trowell 1982	1 month	Emergency caesarean birth mothers more likely to recollect birth as a bad experience than spontaneous birth mothers.

Further studies corroborated the finding that emergency caesarean birth is associated with reduced satisfaction (Brown and Lumley 1994; Green, Coupland & Kitzinger 1998; Waldenstrom 1999; Saisto, Salmela-Aro, Nurmi and Halmesmaki 2001; Waldenstrom, Hildingsson, Rubertsson and Radestad 2004) and fulfillment (Salmon and Drew 1992) with the experience of childbirth compared to other modes of birth.

2.6.8 Depression, anxiety, self-esteem and posttraumatic stress disorder

Most core comparative studies found no association between mode of birth and depression, anxiety or self-esteem. Ryding, Wijma and Wijma (1998) and Soderquist, Wijma and Wijma (2002) explored the incidence of Post Traumatic Stress Disorder (PTSD) and concluded that women who had an emergency caesarean birth were more at risk of developing symptoms of PTSD than women who had a spontaneous birth (table 2.5).

Table 2.5: Depression, anxiety, self-esteem, self image and posttraumatic stress disorder in core comparative studies

Author	Timing of data collection	Depression / anxiety /self-esteem/image /PTSD in the first six weeks
Bradley, Ross et al 1983	Hospital 1 month	No significant differences between women who had vaginal or emergency caesarean birth for depression and anxiety
Chen & Wang 2002	6 weeks	No significant differences between women who had elective or emergency caesarean birth for depression or self-esteem
Durik et al 2000	2 nd trimester 4 weeks	No significant differences between women who had elective or emergency caesarean birth for depression or self-esteem at either time point
Field & Widmayer 1980	Hospital	Emergency caesarean women showed more anxieties towards labour and birth than women who had a vaginal birth
Maclean et al 2000	6 weeks	No significant difference between women who had vaginal or emergency caesarean birth for depression and anxiety
Padawer et al 1988	2 days	No significant difference between women who had vaginal or emergency caesarean birth for depression and anxiety
Ryding et al 1998	Hospital 1 month	One month after birth women who had an emergency caesarean or an instrumental birth demonstrated more post-traumatic stress reactions than other women
Soderquist et al 2002	Over 1 month	Having an emergency caesarean birth was associated with 6.3 increase in the odds of PTSD and an instrumental birth was associated with 4.8 increase in odds of PTSD compared with spontaneous birth
Trowell 1982	1 month	Emergency caesarean birth mothers had more anxiety and depression symptoms (lack of appetite and sleep disturbance) than spontaneous birth mothers.

Lack of association between emergency caesarean birth and postnatal depression is also supported by other studies (Edwards, Porter and Stein 1994; Maclean, McDermott and May 2000; Saisto Salmela-Aro, Nurmi and Halmesmaki 2001). Further, Elliott, Anderson, Brough, Watson and Rugg (1984) in a longitudinal study of 117 women did not find any obstetric intervention associated with subsequent postnatal depression. Culp and Osofsky (1989) suggested that the lack of negative effects of caesarean birth is related to the increased prevalence of the procedure and greater understanding of why it is performed. Sargent and Stark (1987) interviewed 35 American women within 72 hours of the birth and found that the majority had a positive response to their emergency surgery which they attributed to a general acceptance of technological intervention.

Creedy, Shochet and Horsfall (2000) explored the incidence of post traumatic stress disorder in 499 Australian women after childbirth and found that women who experienced an emergency caesarean were more likely to develop trauma symptoms than women who had a spontaneous birth ($p < 0.0011$). Ryding, Wijma and Wijma (1997) interviewed 25 women, one to two months following their emergency caesarean and found that although none were suffering PTSD, 13 had PTSD symptoms. Although not mentioned in the discussion, 24 of the 25 women had their unanticipated surgery under general anaesthetic, which could have contributed to their fear and distress.

Potentially women may face difficulties accepting their 'scarred' body, not only because there is a visible wound but also because it reminds them that their body was unable to fulfil its childbearing role. Research findings are contradictory regarding the impact of emergency caesarean birth on body image. Padawer, Fagan, Janoff-Bulman, Strickland and Chorowski (1988) found no difference between women who had an emergency caesarean birth and vaginally delivered women regarding satisfaction with their appearance / sexuality. In a descriptive study by Sargent and Stark (1987), 35 Dallas women were interviewed on the second or third postnatal day following emergency caesarean birth. At this point in their recovery only 74% of the women had looked at their wound and of those who had, most expressed either positive or neutral comments about it. Although, on the face of it, it would appear that these women were relatively accepting of their wound, the fact that 26% ($n=9$) still had not looked at it is a cause for some concern.

Marut and Mercer (1981) however, described surgery as an 'insult to the woman's body image' (page 136) compounded by the consequences of altered bodily functioning, for example, having a urinary catheter. In a detailed case study, Berry (1983) followed a woman who had an emergency caesarean birth for failure to progress whose focus over a five-week period following the birth was

her body image. The simultaneous experience of surgery and childbirth and its impact on the wholeness and integrity of her body led her to become egocentric.

2.6.9 Attitude to baby

Most studies found no association between mode of birth and women's attitude to their baby (table 2.6). There was some evidence that women who had an emergency caesarean took longer to feel close to their baby than other women. Few studies looked at the potential for the method of anaesthetic to impact on the woman's attitude towards her baby in the first six weeks. In some studies, this was because all women had general anaesthesia for their caesarean (Bradley, Ross and Warnyca 1983; Field and Widmayer 1980) or all had regional anaesthesia (Kochanevich-Wallace, McCluskey-Fawcett, Meck and Simon 1988).

Table 2.6: Attitude to baby in core comparative studies

Author	Timing of data collection	Attitude to baby in the first six weeks
Bradley, Ross et al 1983	Hospital 1 month	No significant differences between women who had vaginal or emergency caesarean birth for attitude to baby at either time point.
Cranley et al 1983	2-4 days	No significant differences between emergency caesarean, elective caesarean or vaginal birth.
Field & Widmayer 1980	Hospital	No significant differences between women who had vaginal or emergency caesarean birth for maternal assessment of child behaviour
Garel et al 1987	3-6 days	No difference between elective and emergency caesarean women regarding feelings towards baby.
Hillan 1992b	6 months	36% of women who had an emergency caesarean felt close to their baby immediately compared with 56% of women who had a vaginal birth ($p < 0.05$). At one month there were still significant differences (48% and 76%) ($p = < 0.005$)
Kochanevich-Wallace et al 1988	2 days	No significant difference between women who had vaginal, elective or emergency caesarean birth for mother-infant interaction or perception of infant behaviour
Marut & Mercer 1979	2 days	Women who had an emergency caesarean were less likely to have named their baby than those who gave birth vaginally
Trowell 1982	1 month	Caesarean mothers had less eye to eye contact and were less relaxed when bathing their baby than spontaneous birth mothers

Marut and Mercer (1979) found that women who had a general anaesthetic were less likely to have named their baby within 48 hours than women who had regional anaesthesia. Cranley, Hedahl and Pegg (1983) found that women who had a general anaesthetic scored significantly lower in the baby sub-scale of the Perception of Birth questionnaire than women who had a regional anaesthetic.

There were no significant differences, however, between the groups for mode of birth and attitude towards baby (as measured by the Leifer scale). Thus, most studies failed to account for the potential influence of method of anaesthetic, not only on the woman's post-operative well being and how that might affect her response to her new baby, but also the influence of anaesthetic on the baby's behaviour.

2.6.10 Breastfeeding

There is some evidence from the 1980s that women who had an emergency caesarean were less likely to start breastfeeding and more likely to stop breastfeeding than other women, particularly in the first few postnatal days (table 2.7). The prevalence of general anaesthesia for surgical birth, particularly for emergency caesareans, is likely to have had a negative impact on successful breastfeeding due to the delayed postnatal recovery of the woman and the transfer of anaesthetic agents to the baby. None of the core comparative studies reported on the impact of the type of anaesthetic on breastfeeding success. Another factor that may be reflected in these results, is the strict regime of hospital maternity care in the 1980s during which time babies were often separated from their mothers to allow mothers to rest. Also, many babies born by emergency caesarean were separated temporarily from their mothers and taken to a special care baby unit for observation. (Hillan 1992a). Such separation is no longer encouraged; indeed rooming in and early close contact between the mother and her baby is strongly advocated (Unicef 2004). The most recent research report (Durik, Hyde and Clark 2000) found no differences regarding method of feeding and mode of birth.

Table 2.7: Breastfeeding in core comparative studies

Author	Timing of data collection	Breastfeeding in the first six weeks
Bradley, Ross et al 1983	Hospital	Women who had a vaginal birth were significantly more likely to be breastfeeding on discharge than women who had an emergency caesarean (96% versus 82%, $p < 0.05$).
	1 month	No significant difference between groups (no figures).
Cranley et al 1983	2-4 days	Women who had emergency caesarean were less likely to start breastfeeding (55%) than women who had an elective (71%) or vaginal birth (90%) ($p = 0.001$)
Durik et al 2000	1 month	No differences between method of feeding for emergency caesarean, elective caesarean or vaginal birth
Hillan 1992a	3-4 days	Fewer women who had emergency caesarean put baby to the breast than women who had a vaginal birth (no figures given)

In Green, Baston, Easton and McCormick's study 'Greater Expectations?' (2003) it was reported that mode of birth was significantly related to the duration of breastfeeding in multiparous women. Six weeks after the birth only 36% of women who had an emergency caesarean were still breastfeeding compared with 58% of women who had a spontaneous vaginal birth.

2.6.11 Attitude to having another baby

None of the core comparative studies explored this issue with women within six weeks of the birth.

Question 2: *What are the psychosocial sequelae of emergency caesarean birth on women more than six weeks after the birth?*

2.6.12 Satisfaction and perception of the birth

Only one core comparative study explored women's perception of the birth in relation to mode of birth, after six weeks. Schindl, Birner, Reingrabner, Joura, Husslein and Langer (2003) found that at four months postnatally, women who had an instrumental or emergency caesarean birth were more negative about the experience than women who had elective caesareans or spontaneous vaginal births.

Other studies corroborate this finding. In a study designed to explore Australian women's concerns about maternity services (Brown and Lumley 1994), 790 women returned a postal questionnaire eight to nine months after they had given birth. They found that women were more likely to be dissatisfied with their birth if they had experienced an emergency caesarean.

2.6.13 Depression, anxiety, self-esteem and posttraumatic stress disorder

One core comparative study (Durik, Hyde and Clark 2000) explored depression and self esteem four months after the birth and found no significant differences by mode of birth. Field and Widmayer (1980) in their small study of twenty women found that women who had an emergency caesarean birth were more anxious at four months than women who had a vaginal birth (table 2.8).

Other research examines the association between long term psychosocial well being and emergency caesarean birth. In a study designed to explore the short-term consequences of caesarean birth, Hillan (1992c) sent questionnaires to 588 women three months after their caesarean. No differences were found regarding symptoms of depression between women who had either elective or emergency caesareans.

Table 2.8: Depression, anxiety, self-esteem and posttraumatic stress disorder in core comparative studies

Author	Timing of data collection	Depression, anxiety, self-esteem and posttraumatic stress after 6 weeks
Durik et al 2000	4 months	No significant differences between women who had spontaneous vaginal, elective or emergency caesarean birth for depression or self-esteem.
Field & Widmayer 1980	4 months	Caesarean mothers showed less optimal state – trait ratings than those who had a vaginal birth

Miovech, Knapp, Borucki, Roncoli, Arnold and Brooten (1994) found that the relative importance of physical and emotional symptoms does not remain constant. They explored women's psychological concerns at two and eight weeks after unplanned caesarean birth. At eight weeks only six percent of women reported feeling depressed, however, 23% had concerns about their body image changes compared with 11% two weeks after the birth.

Although the majority of studies do not find an association with emergency caesarean birth and postnatal depression, one study claimed an association and indeed bears the title 'Increased risk of postnatal depression after emergency caesarean' (Boyce and Todd 1992). This Australian paper is therefore critiqued in detail.

The aim of the study was to determine whether personality dysfunction increased the risk of postnatal depression in primiparous women. The study was prospective and women were interviewed in the first trimester of pregnancy using a catalogue of tools, including the Beck Depression Inventory (BDI). Women who had emergency caesarean birth (n=21) were compared with women whose birth was assisted by forceps (n=49) and those who had a spontaneous vaginal birth (n=118). It was found that women who had emergency caesarean birth had significantly higher EPDS scores at three months postpartum. Of importance is the antenatal difference between the three groups in relation to this measure, with the emergency caesarean birth group having the highest BDI scores. Although there were significant differences between the three groups (p=0.02) when compared to vaginal birth alone this did not reach significance (attributed to the small sample size). There was a significant difference between those women in the forceps and spontaneous vaginal birth groups.

One month after the birth, women in the emergency caesarean birth group had similar mean EPDS scores when compared to women who had forceps (7.47 and 7.49) and higher scores than women who had spontaneous vaginal birth (6.15). However at three months after birth the emergency

caesarean birth women had significantly higher scores (9.15) and the forceps and spontaneous vaginal birth groups scores were falling (5.05 and 5.79). At six months the emergency caesarean birth women's scores had fallen again (6.11) but remained higher than the other groups (4.54 and 5.23). Although these differences may represent variations in mood, the clinical significance of such differences is unlikely to be of concern. Women who score 12 or more on the EPDS are at risk of having postnatal depression (Cox, Holden and Sagovsky 1987). Boyce and Todd compared the proportion of women in each group who exceed this score. However, at this point the emergency caesarean birth women are compared with a combined group of forceps and spontaneous vaginal births. A rationale for this change was not provided. A significantly higher proportion of women who had an emergency caesarean birth were identified as at risk than in the combined group at three months postnatally. It should be noted that the numbers of women who completed EPDS assessments at three months was less in each group. Also there was a considerable change in the means of data collection at this time point (interview at one and six months, postal survey at three months). This inconsistency reduces the legitimacy of this comparison and is not highlighted as a limitation to the study in the discussion.

In the discussion the authors considered various reasons for the higher EPDS in emergency caesarean birth women. They stated that physical discomfort might be a determinant, but then concluded that because the significance is detected at three months rather than one month after birth, that this cannot be the case. Levels of physical discomfort are not presented for analysis. It may be that still having physical discomfort at three months results in affected mood. It cannot be assumed that there are no physical sequelae at three months postpartum.

The authors make the unsubstantiated generalisation that 'most pregnant women invest a lot of time preparing for a normal delivery' (p173) and are therefore upset if they do not experience a 'natural' birth. They do not make reference to the higher level of depression detected antenatally in the women who go on to have a caesarean birth. They conclude that their work suggests that women should be screened postnatally for postnatal depression using the EPDS and possibly receive prophylactic treatment. Perhaps their research should conclude that women who are depressed antenatally are more likely to have an emergency caesarean birth and this is where the prophylaxis should begin. There is no mention of the condition of the baby, length of labour or type of anaesthesia used as potentially related factors, and no rationale is given for excluding women who have elective caesarean birth.

2.6.14 Attitude to baby

The evidence from the core comparative studies regarding women's attitude to their baby and mode of birth was contradictory. Comparison between the studies is not possible because of the different measures used and the different timing of data collection (table 2.9).

Table 2.9: Attitude to baby after 6 weeks in core comparative studies

Author	Timing of data collection	Attitude to baby after 6 weeks
Durik et al 2000	2 months	No significant differences for mode of birth
	4 months	No significant differences for mode of birth
Field & Widmayer 1980	4 months	Caesarean mothers rated their infant temperament more favourably, had more optimal face to face and feeding interaction than women who had a vaginal birth
	8 months	Caesarean mothers rated their infant temperament more favourably than women who had a vaginal birth
Hillan 1992a	2 months	Caesarean mothers less likely to feel close to their baby than women who gave birth vaginally (p=0.01)
Trowell 1982	1 year	Caesarean mothers felt that their baby was a person later than those who had a spontaneous birth did. They were also slower to respond to their child's crying and to initiate play. They kissed their baby more often than the other mothers but found motherhood more demanding.
	3 years	More of the caesarean mothers reported serious relationship problems with their child than women who had had a spontaneous vaginal birth.

Lipson (1982) undertook participant observation of women attending an American caesarean support group and also conducted 22 semi-structured interviews. Some women described negative feelings towards the baby and delayed bonding but reported that the support of the group helped them work through their anger. Sexual problems and altered body image were also verbalised within the group. Some felt that their relationship with their husband had improved because of his presence at the birth and participation in the subsequent care of their baby.

2.6.15 Breastfeeding after 6 weeks in core comparative studies

There were no core comparative studies that explored the continuation of breastfeeding for more than six weeks after the birth. Victora, Huttly, Barros and Vaughan (1990) explored this issue as part of a cohort study of 4912 Brazilian infants. They found that over a two-year period, women who had an emergency caesarean birth breastfed their babies for significantly shorter time periods than women who had a spontaneous vaginal birth.

2.6.16 Attitude six weeks after the birth to having another baby

Only one core comparative study explored the issue of having another baby subsequent to emergency caesarean birth. Hillan (1992b) surveyed women six months after birth and found that 14% of the woman who had an emergency caesarean said they would not have another baby compared with 4% of those who had a vaginal birth.

Bahl, Strachan and Murphy (2004) surveyed 283 women three years after operative birth in the second stage of labour. They found that women who had had an emergency caesarean were less likely to have had another baby and more likely to have experienced difficulty conceiving than women who had an instrumental birth. Women who had a caesarean birth were less likely to have a subsequent vaginal birth (31%) than those who had an instrumental birth (78%).

The extent to which emergency caesarean actually deters women from having a further pregnancy is relatively unexplored. One study (Garel, Lelong and Kaminski 1988) reported that women who had a caesarean birth (70% emergency), although reluctant to contemplate further pregnancy soon after the birth, were similar in their aspirations to women who had a vaginal birth one year later. When followed up after four years (Garel, Lelong, Marchand and Kaminski 1990) there was no statistical difference between the number of subsequent children born and mode of birth.

2.6.17 How do antenatal factors relate to subsequent psychosocial well being?

Only one core comparative study explored the impact of antenatal factors on the psychosocial well being of women who had an emergency caesarean. Durik, Hyde and Clark (2000) found that women who scored low in neuroticism during pregnancy and who went on to have an emergency caesarean, were less likely to display positive behaviour towards their four-month-old child than other women were. They concluded that this was because their expectations had been 'violated' (page 258). They also suggested that women who were already worried that something would go wrong and thus highly neurotic about the birth would be less susceptible to the effects of an unplanned caesarean as this would be more congruent with their expectations.

Providing women with antenatal information about caesarean birth has been seen as an important component of preparation for childbirth classes (Fawcett 1990; Greene, Zeichner, Roberts, Callahan and Grandos 1989; Miller 1985). In an experimental study designed to assess the impact of antenatal information about caesarean birth on women's subsequent perceptions (Fawcett, Pollio, Tulley, Baron, Henklein and Jones 1993), no difference was found between women who received standard information and those who received more comprehensive information. Mean

pain and distress scores were low and self-esteem was high in both the control and experimental groups. The authors concluded that this was because emergency caesarean was a less threatening experience for women than it had been due to the increased use of regional anaesthesia and the presence of the woman's partner during the birth.

Ryding, Wijma and Wijma (1998b) conducted a small study involving 24 Swedish women who had experienced emergency caesarean to identify antenatal factors associated with subsequent posttraumatic intrusive stress reaction (PTISR). They found that having a poor relationship with their partner and having a previous negative experience as a patient were factors. No association was found regarding a previous fear of childbirth, fear of hospitals, sexual assault or recent serious life event and the development of PTISR in these women. In a later study (Wijma, Ryding and Wijma 2002) of 40 women one month after emergency caesarean, they found that antenatal fear of childbirth and general anxiety predisposed women to mental distress postnatally.

2.6.18 How do events in labour relate to subsequent psychosocial well being?

The main intrapartum event that was considered in the core comparative studies was method of anaesthesia and most concluded that the use of regional anaesthesia for caesarean birth was associated with a more positive appraisal of the birth than when general anaesthesia was used (table 2.10).

Table 2.10: Labour events and psychosocial well being in the core comparative studies

Author	Labour event	Impact of labour event
Chen & Wang (2002)	Anaesthesia	No differences regarding psychosocial outcomes between women having either general or regional anaesthesia
Cranley et al (1983)	Anaesthesia	Women who had a caesarean under regional anaesthesia had a more positive perception of the birth than women who had general anaesthesia
Fawcett et al (1992)	Length of labour	No association between length of labour and perception of the birth experience for either caesarean mothers or those who had a vaginal birth
	Anaesthesia	Women who had a caesarean under regional anaesthesia had a more positive perception of the birth than women who had general anaesthesia
Garel et al (1987)	Anaesthesia	Women who had a caesarean under regional anaesthesia had a more positive perception of the birth than women who had general anaesthesia
Marut & Mercer (1979)	Anaesthesia	Women who had a caesarean under regional anaesthesia had a more positive perception of the birth and were more likely to have named their baby within 48 hours than women who had general anaesthesia

Other studies have explored the impact of anaesthesia in more detail. In a study of 105 primiparous women (Miller, Thornton and Gittens 2002), those who had caesarean birth under general anaesthetic were reported to feel significantly more cheated than women who had either caesarean birth under regional anaesthetic or vaginal birth, when asked six months later:

‘...their high levels of distress and sense of being cheated remained, and these feelings ... increased over time’ (Miller, Thornton and Gittens, page 695).

Clement (1995) commented that women often feel that they missed out on the visual as well as the physical aspects of the baby being born (page 90). Robinson (2003) described an obstetrician who allows women to have ‘hands on’ during the caesarean birth, but clearly this could only be possible if the woman had regional anaesthesia and if she and her baby were in good health.

In a study undertaken by Sargent and Stark (1987) women were interviewed following emergency caesarean birth and 70% said that their experience was essentially a positive one. However, women who had ‘missing pieces’ regarding their experience often reported feeling disappointed and this phenomenon prevailed in women who had general anaesthetic. The decision to have a general anaesthetic is sometimes made because the woman is afraid of being awake during surgery. As one woman in Sargent and Stark’s study (1987) points out ‘ I must have been [scared] or why would I have wanted to be asleep?’ (page 1272).

Garel, Lelong and Kaminski (1988) noted that women who had regional anaesthesia for their caesarean had higher levels of education than women who had general anaesthesia. Since the anaesthetist revealed that regional anaesthesia was administered to those women who were ‘motivated’ toward it, this result could have been anticipated. Their study also found that women who had general anaesthesia were significantly more tired one year following the birth than those who had regional anaesthesia. Being awake for surgery however does have some drawbacks. A small study (Ceronio, Dorfling and Nolte 1995) involving five women three days after their unplanned caesarean highlighted the importance of the theatre atmosphere and women’s experience of birth. Women remembered their fear of contaminating the sterile field that had been created around them.

The use of general anaesthetic has also been associated with postnatal depression. In a study by Edwards, Porter and Stein (1994) women who had a caesarean under general anaesthetic were significantly more likely to experience postnatal depression (measured using Dunedin criteria) than women who had a regional anaesthetic. Although there was an increased rate of postnatal depression among women who had a caesarean birth, there were no significant relationships with elective or emergency procedures. However, the sample received questionnaires between 21 and

32 months after the birth and it is conceivable that some of the women who were not depressed at 32 months could have been depressed at 21 months, which may bias the findings.

There are problems of comparability between studies because of differences in methodologies and obstetric practices. For example, Ryding, Wijma and Wijma (1998c) interviewed 53 women following emergency caesarean birth using a 'time spatial model' whereby the interviewer asked women to recount their feelings at six different phases of time from admission to delivery suite through to seeing the baby. The authors concluded that fear was the predominant emotion throughout the experience. However, much of this fear related to being on the operating table awaiting anaesthetic and around waking up factors. Although relevant, only 10% of women in the UK undergoing an emergency caesarean birth have a general anaesthetic (Government Statistical Service 2004) compared with 96% of this Swedish sample.

Most studies that explore women's experiences of complicated labour are small and qualitative (Berg and Dahlberg 1998). However, they provide valuable insights into the range of emotions women experience. Ryding, Wijma and Wijma's study (op cit) highlighted how women's emotions following admission to the delivery suite oscillated between safety and fear during the labour and birth. There does not appear to be a body of literature, however, that examines how such fear could be minimised or how women perceive their care. Hence there are gaps in our understanding of what aspects of care make a difference to women whose labour ends in surgery.

The interval from decision to delivery is one during which attending professionals could potentially make a significant difference to the woman's experience. Tufnell et al (2001) describe the flurry of activity that takes place on the delivery suite following the decision to perform a caesarean. Indeed, Affonso and Stichler (1980) reported how concern with physical aspects of preparation during an emergency often precluded interpersonal activities. The ability to provide supportive care depends on many factors, including the urgency of the situation (Ryding, Wijma and Wijma 2000) and the culture on the delivery suite (Sleutel 2000). Ryding, Wijma and Wijma (2000) argued that in situations where the fetus or woman is not in immediate danger that staff are more relaxed and likely to spend time discussing major decisions with women. In Ryding, Wijma and Wijma's earlier study (1998c) eight percent of the women interviewed, who had an emergency caesarean birth, felt very badly treated by the staff who cared for them during labour and felt angry about this.

The way that care is perceived by women is also associated with the development of postnatal trauma symptoms. In Creedy, Shochet and Horsfall's study (2000) women who experienced a high

level of obstetric intervention and perceived their care to be poor were more likely to develop trauma symptoms than women who experienced a lot of intervention or women who perceived their care to be poor (page 108). In Ryding, Wijma and Wijma's study (op cit.) women who had an emergency caesarean and 'felt wronged by delivery staff' (page 352) were more likely to have PTISR between one and two months after the birth than women who had not felt wronged. No association was found regarding fear for her own or her baby's life during the birth or disappointment with the mode of birth and PTISR.

2.6.19 How do postnatal events relate to subsequent psychosocial well being?

None of the core comparative studies explored how postnatal events related to psychosocial well being for women who had emergency caesarean birth compared to other modes of birth.

Ryding, Wiren, Johansson, Ceder and Dahlstrom (2004) conducted a randomised controlled trial comparing group counselling with standard care for women who had an emergency caesarean birth. One hundred and sixty-two Swedish women were randomised into the two groups but when followed up six months later, no differences were found between them for either postnatal depression, symptoms of post traumatic stress or perception of the birth. Unfortunately evaluation of the efficacy of the intervention was compromised by the fact that some of the women allocated to receive counselling did not attend because they were not well, a group of women who could potentially have benefited from the intervention. The authors concluded that individual counselling and more of it might have been more beneficial.

There is no UK literature that focuses specifically on women's experiences of hospital postnatal care following emergency caesarean birth. A small (n=11) American study (Kehoe 1981) described women who were in pain, fearful of moving because of their stitches and suffering a sense of loss because of their experience. Although Kehoe made recommendations for nursing practice she did not describe the care that women had received. Another American study (Affonso and Stichler 1980) highlighted the multitude of demands that are made of women recovering from caesarean birth in hospital. The combination of undertaking her mothering role, coping with pain and her limited mobility are suggested as issues which might impact on a woman's ability to interact with her baby. The authors urged consumers and nurses to be involved in the development of hospital policy in order to make the experience of caesarean more satisfying for women.

Hospital postnatal care generally has been described as impersonal and rushed (Garcia, Redshaw, Fitximons and Keene 1998). As the caesarean birth rate goes up there are several ramifications that

have the potential to impact on women's experience of postnatal care. For example, the dependency levels of the women on postnatal wards will increase as the number of women who have surgical births rises. This in turn will increase the workload of the already stretched midwifery and support staff. The length of stay in hospital will increase, leading to increased bed occupancy levels, increased consumption of resources and a busy ward environment. The environment in which postoperative women are cared for could become one in which the staff are tired, have less time to spend with individual women and are undertaking post-operative care rather than facilitating the development of the mother – infant relationship. The postnatal care of women who experience emergency caesarean birth needs investigation.

2.7 Reflection on the nature of the literature

There are some limitations to the literature exploring the psychosocial impact of emergency caesarean birth on women. In particular, there is a lack of research that compares the experiences of women following emergency caesarean birth with elective caesarean, spontaneous and assisted vaginal birth. Few studies have examined how previous birth experiences impact on future birth decisions and they have rarely considered emergency caesarean birth specifically. Studies rarely use both quantitative and qualitative methodologies and therefore fail to capture women's experiences in detail. Also, most studies investigate the impact of caesarean birth postnatally, so lack the ability to explore how antenatal attitudes and expectations might colour the picture. Further investigation is therefore required to determine the issues that influence a woman's appraisal of her birth experience. There are also gaps in the literature regarding the nature and impact of postnatal care for women who experience emergency caesarean birth, and there are no longitudinal British studies in this area. Further work is needed to explore women's perceptions of their intrapartum care and carers.

2.8 The revised research questions

The research questions have been modified to reflect the results of the literature review:

1. How does having an emergency caesarean birth influence women's experience of postnatal care?
2. How does emergency caesarean influence the initiation or duration of breastfeeding?
3. How does emergency caesarean birth influence women's relationship with their baby?
4. How does emergency caesarean birth impact on women's subsequent emotional well being in the short (up to six weeks after the birth) and long term (up to three years after the birth)?
5. How does the experience of emergency caesarean birth influence women's decisions about subsequent births?

-
6. How do women who have emergency caesarean birth perceive their intrapartum care and carers?
 7. What factors influence a woman's appraisal of her birth experience?

A summary of the development of the research questions is provided in Appendix 4. The first five questions will be addressed in Chapter six 'Sequelae of emergency caesarean'. Question six will be explored in Chapter seven 'Perceptions of the staff'. Question seven will be explored in Chapter five 'Looking back on the birth experience': it is dealt with first as it explores the issue for all women before the investigation moves its focus to women who have had an emergency caesarean.

2.9 Summary of chapter

Over the last century, caesarean birth has been transformed from a procedure associated with mutilation, pain, haemorrhage, infertility, infection and mortality to one from which women can expect to be up and mobile the next day. Following a structured review of the literature it is evident that women who have an emergency caesarean birth are more likely to have a negative perception of their experience than women who experience other modes of birth. The impact of emergency caesarean birth on other psychosocial sequelae is less clear cut. It has been reported that emergency caesarean birth is associated with many negative sequelae for women including less satisfaction, higher incidence of positive screening for postnatal depression and lower self-esteem. Care must be taken not to attribute mode of birth as the inevitable cause where associated variables have not been accounted for. There are however, aspects of the emergency caesarean experience that are inherent in the process: women who experience emergency caesarean birth will be more likely to be exposed to interventions and be cared for by a range of professionals by virtue of the procedure.

The next chapter describes the methods used in this study and the characteristics of the women who took part.

CHAPTER 3: Methodology and characteristics of the sample

“The spoken or written word has always a residue of ambiguity, no matter how carefully we word the question and how carefully we report or code the answer”.

Fontana and Frey 2003, page 61

3.1 Introduction

This chapter is divided into 3 sections. It begins by describing ‘Greater Expectations?’: the study on which this current study was founded. The methods for primary and secondary analysis of those data are outlined. It then describes in detail the methodology for this study, which comprised a postal survey of women three years after the index birth, followed by in-depth interviews of a purposive sample four years after the index birth. These sections include discussion of the methods chosen and their suitability to address the aims of the research. The final section presents the characteristics of the respondents who completed the questionnaires and of the women who were interviewed.

3.2 ‘Greater Expectations?’

3.2.1 Background

‘Greater Expectations?’ (Green, Baston, Easton and McCormick 2003) was a large prospective study conducted in 2000 led by Josephine Green and in which I was co-grant-holder. The study examined the inter-relationships between women’s expectations and experiences of decision-making, continuity, choice and control in labour, and psychological outcomes. It replicated a study conducted in 1987 called ‘Great Expectations’, also led by Josephine Green (Green, Coupland and Kitzinger 1998) and had the aim of exploring how women’s expectations and experiences had changed in the intervening 13 years. Women were surveyed twice antenatally and at six weeks postnatally in both studies.

The principle focus of ‘Greater Expectations?’ had been on women’s experiences of labour and vaginal birth, yet 21%⁵ of respondents had a caesarean section. Analysis revealed that woman who had emergency caesarean were less likely to be satisfied by their experience, six weeks after the

⁵ Where percentages are presented, they are rounded up to the nearest whole number

birth, than other woman. Although it was not the remit of the study to look specifically at women who had caesarean section, there were sufficient data to permit meaningful secondary analysis and generate further questions. Hence, that valuable sample provided the basis for the current study, focusing on the experiences of women following emergency caesarean section and comparing them with women with other modes of birth (elective caesarean section, instrumental and spontaneous vaginal).

3.2.2 Methods

As the current study built on from 'Greater Expectations?' and involved the same cohort of women, I shall begin by summarising the methods used by Green, Baston, Easton and McCormick in 2000.

3.2.2.1 Participants

Eight maternity units in the United Kingdom (four in the North of England and four in the South) who had agreed to take part in the study were each sent 300 questionnaires and covering letters that they mailed to a consecutive series of women. The women were expecting their babies on or after the first of April 2000 and there were no exclusions.

3.2.2.2 Data collection

A total of 2400 women were sent a questionnaire at approximately 28-29 weeks gestation and those who returned it were sent further questionnaires at 35 weeks gestation and at 6 weeks following the birth of their baby. The questionnaires were all produced in the form of an A5 booklet, each with a different coloured cover to distinguish it from the others. Most of the questions were multiple choice. There were three adjective checklists and numerous open-ended questions providing women with the opportunity to say more about their experiences. The first questionnaire (ANQ 1) included demographic items and some questions about the organisation of antenatal care. The second (ANQ 2) was much longer and covered a range of preferences and expectations for the forthcoming birth. The postnatal questionnaire (PNQ) revisited the topics covered in the second questionnaire to discover what the woman's experiences had been, and it also included measures to assess psychosocial outcomes.

3.2.2.3 Response rate

The response rate for the first questionnaire was 60% (n=1432); 90% (n=1272) of whom returned the second questionnaire and 91% (n=1286) returned the postnatal questionnaire (see figure 3.1 for details). Information was not available regarding the characteristics of non-responders. These data were coded and entered onto an SPSS database.

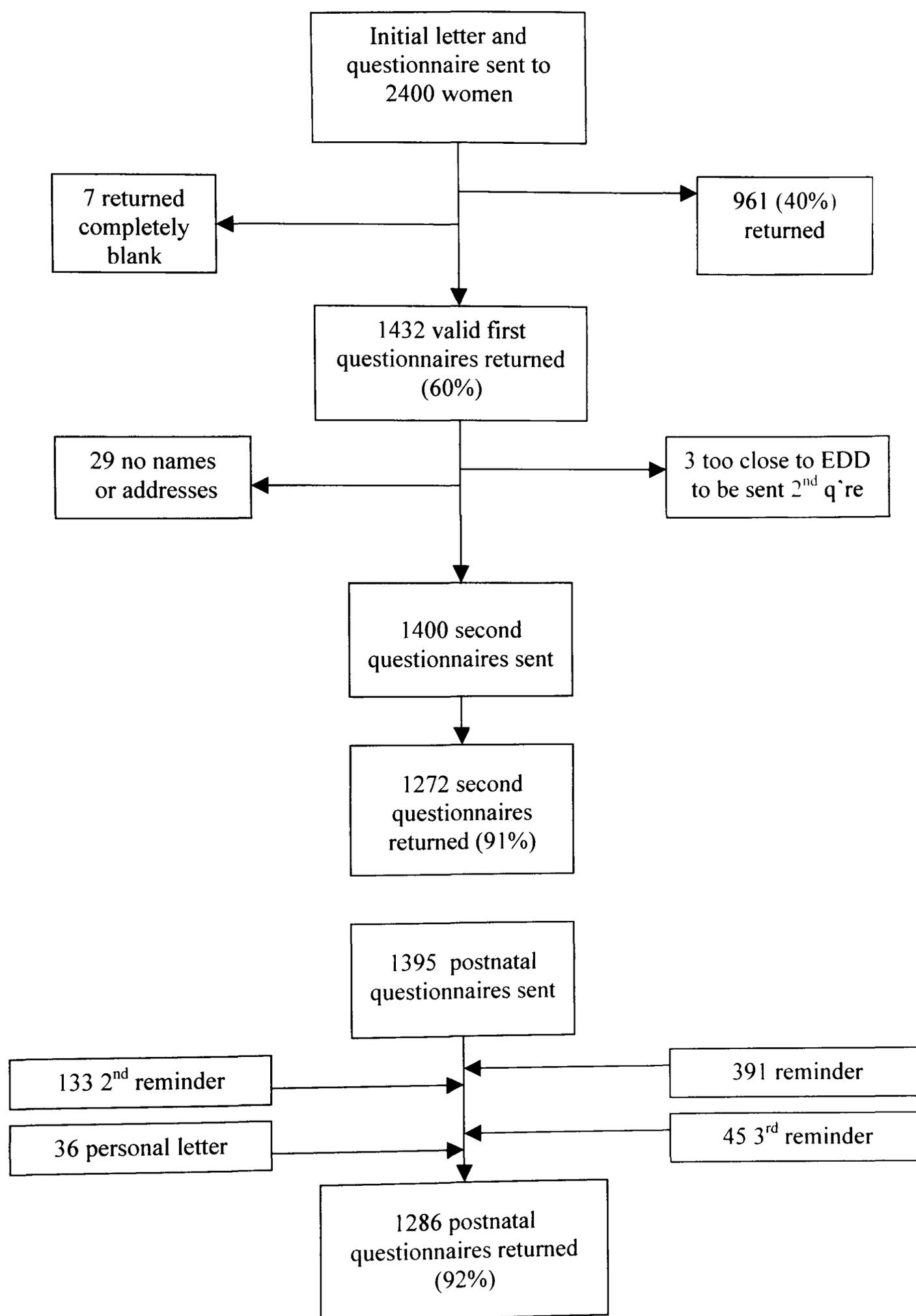


Figure 3.1: Flow diagram showing responses at each stage of the 'Greater Expectations?' study

3.2.3 Secondary analysis of the ‘Greater Expectations?’ data set

3.2.3.1 Rationale

Many of the questions thrown up by the literature could be explored through secondary analysis of the ‘Greater Expectations?’ data set. There are two features of the data that made it particularly valuable for these purposes: the availability of prospective antenatal data pertaining to women’s expectations and attitudes and the ability to explore outcomes in relation to mode of birth where emergency caesarean could be differentiated from and compared with other modes.

3.2.3.2 Analysis

Secondary analysis focused on the quantitative data and was facilitated using Statistical Package for Social Sciences (SPSS) version 12. Bivariate analyses were undertaken using chi-squared for categorical data and ANOVA for continuous data. Women who had an emergency caesarean birth were compared with those who had a spontaneous vaginal birth, with those who had an instrumental birth and with those who had an elective caesarean birth. Specific analyses were undertaken to examine the questions initially raised in Chapter 1 and revised in Chapter 2. Further analysis of the ‘Greater Expectations’ data was required prior to the multivariable analysis described in Chapter 5. Secondary analysis was an on-going feature of the analysis of the follow-up study data during both phases (questionnaire and interview) as new ideas emerged that required further exploration.

3.3 The present study

3.3.1 Methods

3.3.1.1 Design

This was a prospective, longitudinal cohort study and comprised two main phases:

- | | |
|---------|----------------------------------------------------------------------------------------------|
| Phase 1 | Postal follow-up survey of previous participants, three years after the index birth (n=1266) |
| Phase 2 | Purposive interviews, four years after the index birth (n=21) |

3.3.1.2 Rationale for use of mixed methods

Much is made in the research literature of the philosophical bedrock supporting the range of methods researchers use. Mason (2002) for example, exhorts the need for researchers to begin their study by focusing on their ontological perspective. She argues that ‘because it is so fundamental, it

takes place earlier in the thinking process than the identification of a topic' (page 14). The way we know the world is then reflected in the methodology that we subsequently choose. Researchers therefore need to be aware of where their interests lie as they develop their methodology. Crotty (1998) however, argues that the distinction between qualitative and quantitative research exists at the point where methods are selected rather than at the theoretical or epistemological level but concurs that an individual researcher's epistemological stance should be consistent.

As qualitative and quantitative methods are derived from diametrically opposed ontological perspectives the two approaches have been seen as incompatible with each other (Bryman 2001). The opposing ontological, epistemological and theoretical stances observed between qualitative and quantitative research have been referred to as the 'paradigm wars' (Gage 1989). Oakley (2000) argues that such paradigm battles continue for reasons of identity rather than real differences in our ways of knowing. She asks:

'Why do people go on about 'quantitative' and 'experimental' and 'qualitative' methods as though they were inherently opposed, rather than simply being aspects of the way we all live in and make sense of the world?' (page 293).

Brannen (2004) poses the possibility that this paradigm split is set to continue, as qualitative researchers become increasingly reflexive and quantitative researchers develop more sophisticated statistical techniques. She goes on to suggest however, that as more disciplines seek to use research to inform policy, the importance of theoretical, and subsequently, methodological matters has been downplayed. Instead the choice of methods to use becomes more important. This stance is a more accurate reflection of what usually happens in social research – a topic emerges that requires investigation and the means of generating and collecting data that suit the topic are chosen. The methods employed during the study reflect the nature of the research question (Teddlie and Tashakkori 2003). Methods of collecting data are often chosen for pragmatic reasons in terms of economies of time and resources, within the context of the question to be answered, such as 'what kind of project can be accomplished within the funding available?' Researchers with different methodological expertise will look at an issue from different perspectives, asking questions that reflect their 'biographies' (Brannen 2004 page 314).

Within an issue of enquiry however, there may be a range of questions, each requiring a different means of investigation. In conducting this study, my main aim was to understand the experience of emergency caesarean birth. From my involvement in 'Greater Expectations?' I was aware that women who had emergency caesarean were less satisfied with their birth experience than other women and I have shown how some of the literature supports this finding. I also knew from

‘Greater Expectations?’ that whilst some women were dissatisfied, many were not and I therefore wanted to investigate what makes a difference to women’s experiences in order to inform future maternity care. Hence this study involved both theory testing, ‘Are women who have emergency caesarean birth more likely to experience negative emotional sequelae than women who have other modes of birth?’ and theory building, ‘how do women feel about the experience of emergency caesarean birth and what influences their long term perception of this event?’ To address both the theory testing and theory building aspects of the research required the use of more than one method.

Quantitative methods highlight the important association between emergency caesarean birth and dissatisfaction. They also provide insights into the predictors of this malcontent. Yet it is only through the use of qualitative methods that women’s experiences can be truly witnessed and the impact of them verified. I also feel that when women’s voices are heard or seen as direct quotes by a target audience (usually professional carers), that they are more likely to resonate with them and provide a stronger, more tangible message, than percentages and graphs.

3.3.1.3 Triangulation

It is suggested that mixed methods originated from the concept of ‘triangulation’ (Teddlie and Tashakkori 2003) which refers to “the use of a combination of methods to explore one set of research questions” (Mason 2002, page 190). The researcher explores the questions from different perspectives and recognises that the issue under investigation is complex. Barbour (2001) argues that it is difficult to compare data generated by different methods, even within the same paradigm: ‘data collected using different methods come in different forms and defy direct comparison’ (page 1117). When used in purely qualitative studies however, triangulation usually can apply to data obtained from different samples or different methods within the same sample. Using mixed methods in the current study not only fulfilled the function of corroborating one form of evidence with another but enabled emerging issues to be explored in further detail as on-going analysis gave rise to further questions. The following figure (3.1) illustrates how a relationship that emerged from the quantitative data was further developed using additional data sources. For clarity, the figure shows exploration of one issue ‘supportive care in labour’: in practice it was a complex iterative process.

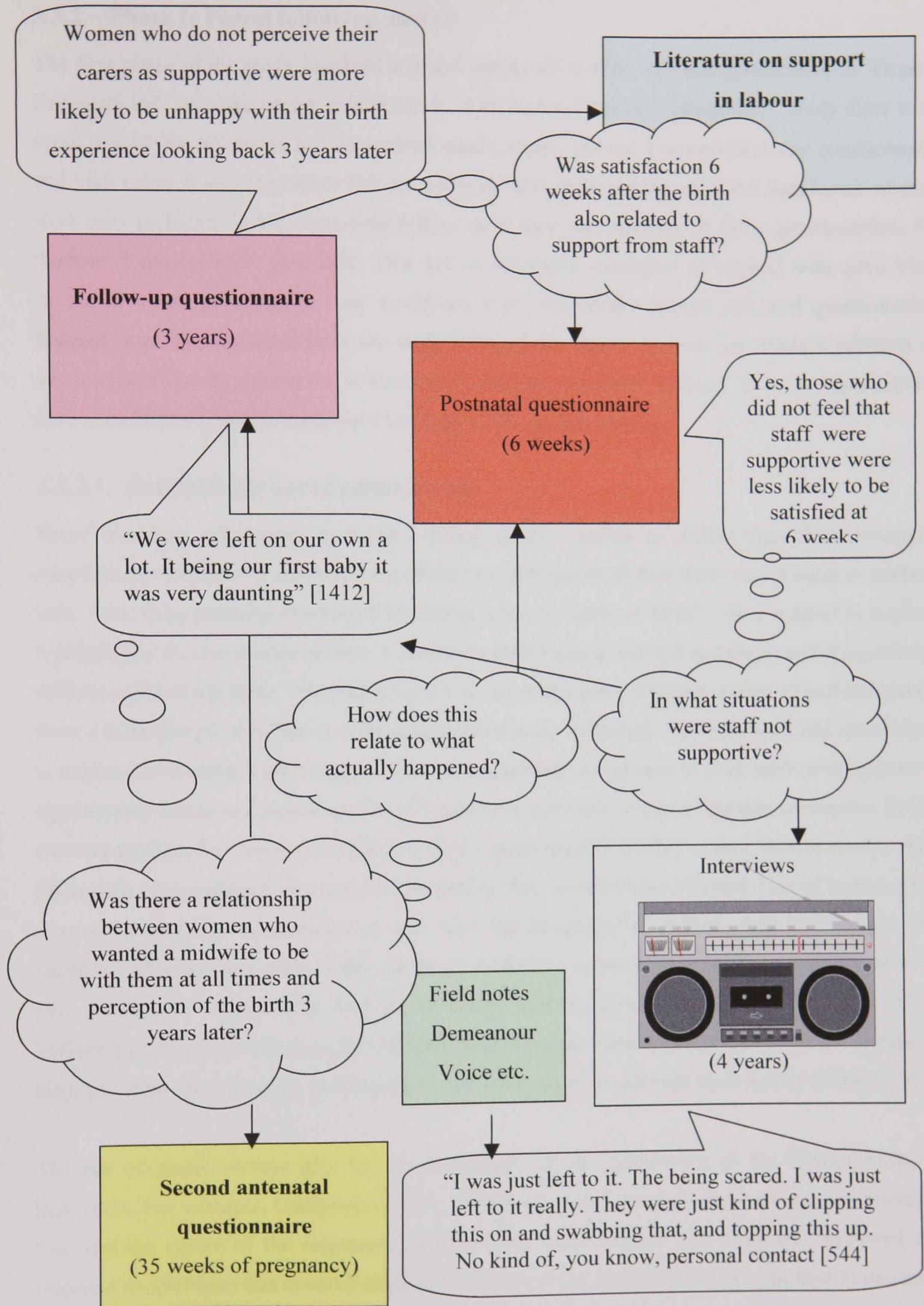


Figure 3.2: An example of the dynamic research process

3.3.2 Phase 1: Postal follow-up survey

The first phase of the study involved a postal survey of women who had participated in 'Greater Expectations?' focusing on the index birth in 2000. In the 'Greater Expectations?' study there were some women for whom we had a postnatal questionnaire and not a second antenatal questionnaire and vice versa. It was important that the postnatal data reflected the antenatal data hence women were only included for the three-year follow up if they had returned all three questionnaires for 'Greater Expectations?' (n=1278). This led to automatic exclusion of anyone who gave birth before 35 weeks gestation, as they would not have completed a second antenatal questionnaire. Women were also excluded from the study if they were known to have had either a stillbirth or neonatal death (n=8), moved out of the country with no forwarding address (n=3) or requested not to receive further questionnaires (n=1) leaving 1266 eligible women.

3.3.2.1 Rationale for use of postal survey

There are many advantages to using a postal survey method to collect data about women's experiences of maternity services. One of the research questions this study was aiming to address was, 'how does postnatal emotional wellbeing relate to mode of birth?'. As I wanted to explore wellbeing by all four modes of birth, I needed to obtain a large enough sample to detect significant differences between them. The postal survey is one of the most effective means of collecting data from a large sample and from a wide geographical area. Although a considerable amount of time is required to develop a questionnaire that is comprehensive and easy to read, such development is significantly less time consuming than it would be to interview a similar number of women. Postal surveys are therefore more cost effective than a large number of face to face interviews and they allow data to be collected at a specific moment in time, avoiding the potential bias of interviewing women sequentially. Questionnaires also have the advantage of eliciting data in a format that facilitates efficient data entry. Data can be pre-coded (or coded by a researcher) and then entered onto a database. This survey had the advantage that the women had previously demonstrated commitment to it and they were also familiar with the questionnaire format. They would recognise the style of the questionnaire and hopefully feel encouraged to maintain their loyalty to the study.

The use of postal surveys also has disadvantages, which examination of the literature clearly highlights. For example, Cartwright (1988) conducted a study to explore issues such as response bias and the nature of the responses gleaned from such surveys. Her study also explored the response to questions that covered sensitive subjects which women might be reluctant to disclose. A random sample of 100 births in each of four registration districts was selected for phase one and again for phase 2 of the study, including a total of 800 births. In each phase of the study, 50 alternate births were allocated to a postal survey and 50 to be interviewed. Response rates were

higher in the interview group, 92% compared with 75% in the postal group. However there was also a range of response rates between districts (also noted in the 'Greater Expectations?' study). Some questions received an 'inadequate' response and this was three times more likely in the postal survey than with the interviews.

In relation to sensitive issues or factual questions in Cartwright's study, there were generally no differences between groups. There were some differences in response to 'laden' questions, for example, behaving in an appropriate manner such as attending antenatal clinics, but there was no consistent pattern to them. Criticisms of care were more often reported during interviews than by post, which Cartwright attributed to the fact that some people find it easier to express themselves orally (page 181). Another disadvantage of postal surveys is that women who do not speak English are unable to respond (Garcia 1997, Cartwright 1988). To reach a non-English speaking population requires the use of methods adapted to meet their specific language needs.

Questionnaires, however, do lend themselves to considered thought; to reflection and soul searching over hours, days or weeks. It would be intriguing to research what happens when a questionnaire lands on someone's mat. Is it identified as a questionnaire that requires some time to complete and therefore put on one side until an opportunity arises or are its contents perused and subconsciously processed until a time when responses are sufficiently shaped and ready to be committed to paper? How often are difficult questions left because the issue is too painful to reflect on, with the intention of going back to it at a more courageous moment? How many questionnaires are discarded after completion because the respondent feels that her voice is too angry and may upset someone?

3.3.2.2 Developing the questionnaire

The content of the follow-up questionnaire (FQ, see inside back sleeve of this document) built on that of the previous 'Greater Expectations?' questionnaires. Many details were already known, for example, date of index birth. Although repetition was kept to a minimum, it was considered valuable to have some key facts repeated to enable confirmation of details and to explore how women's feelings had changed over time.

- *Preface to the questionnaire*

Women were reminded how to complete the questions and encouraged to give further information if the questions did not meet their individual circumstances. So that potentially important issues could be identified and accounted for in the subsequent analysis, women were asked to note any key life events since the birth (such as becoming unemployed for example).

- *Section A : Your Millennium baby*

It was important to clarify that this questionnaire focused on the index birth rather than subsequent or previous birth. Hence the term ‘Millennium baby’ was used throughout. This section included questions related to the child’s current health and behaviour so that responses could be seen in the light of any problems associated with caring for the child. This led to a key question asking about any difficulties experienced forming a relationship with the baby, which the literature review had suggested might be an issue (Gottlieb and Barrett 1986; Green, Richards, Kitzinger and Coulpland 1991; Klaus and Kennel 2001; Rowe-Murray and Fisher 2001).

A grid of sixteen adjectives, previously used to describe the Millennium baby at six weeks of age, was repeated in this section. This ‘baby adjectives check-list’ was developed by Green, Richards, Kitzinger and Coulpland (1991) and has been used in subsequent studies (for example, Greenhalgh, Slade and Spiby 2000). Its importance in this study was to explore if women who had emergency caesarean section described their children differently from other women and how their descriptions at three years related to those at six weeks.

Questions exploring issues surrounding breastfeeding aimed to further enhance existing data and to investigate duration of feeding and reasons for stopping. The latter is of topical interest in view of recent guidance that babies should be exclusively breastfed for six months (Department of Health 2003). A ‘catch all’ box concluded this section, ‘is there anything else you would like to tell us about your Millennium baby?’ However, a subsequent pilot exercise (see 3.3.2.5) revealed that its position at the end of the breastfeeding section meant that women tended to relate their additions to feeding issues. Hence an addition was made, ‘..about feeding or otherwise?’

- *Section B: Other pregnancies and babies*

It was felt important to be able to contextualise women’s experiences within their overall reproductive history. A table was therefore designed and women asked to give details of all pregnancies, including mode of birth. This table had been extended following the pilot to enable women to document pregnancy loss, to include multiple births and to catalogue pregnancies in chronological order for easier data entry. Questions about further pregnancies and future intentions were also asked here, with women encouraged to expand on their reasons for not having any more children.

- *Section C: The Millennium birth*

One concern for this study is the accuracy of women's recall of the events of the birth three years later. Simkin (1991) suggests that women's memories of the birth are often vivid for many years subsequently. Nevertheless, it was felt expedient both to ask women how clear their memories were and to check concordance on certain questions which had already been asked at the time of the 6-week questionnaire

Little is known about how women feel while they are being prepared for emergency caesarean section or what helps them feel safe. It was felt that this information would need to be interpreted in the context of who was with them during this process and how the staff were perceived. Hence questions were asked about their memories of this time, specifically for each mode of birth. Again a grid of adjectives that had been used in the previous questionnaire six weeks after the birth was repeated, to assess whether there were systematic changes in the words chosen.

- *Section D: Postnatal care*

This section referred women to their experiences of postnatal care, both in hospital and in the community, with the purpose of identifying differences in perceptions of care and carers for different modes of birth. A study of self-selected women conducted by the National Childbirth Trust (Singh and Newburn 2001) found that women who experienced complications were most likely to feel disappointed with their postnatal care. It has been suggested that hospital provides '...an unsatisfactory postnatal environment which women were keen to leave.' (Jackson 1996, page 40) and the questions sought to collect data that would confirm or refute such a statement. This section also included questions about previous hospital admissions in order to assess if previous experience made a difference to their current perceptions.

One aspect of care that has been heralded as a valuable component of postnatal care is 'debriefing' (Axe 2000). There is some confusion regarding the use of this term that has traditionally been used to describe a structured intervention aimed at preventing psychological morbidity following a traumatic event (Dyregrov 1989). However, the term has also been used to refer to services developed by midwives to help women who have unanswered questions following childbirth (Charles and Curtis 1994, Smith and Mitchell 1996). Alexander (1998) urges caution highlighting the need to use clear terms to describe such activities, with regard to both their purpose and effectiveness. For the purpose of this study, all women irrespective of mode of birth were asked whether anyone discussed their birth with them, either during their hospital stay or when they were at home, and if so, whether the person had been present at the birth. Women were also asked how

they felt when they got home from hospital, as this is a potentially stressful time (Ockleford, Berrymen and Hsu 2004)

- *Section E: Your health*

Some literature suggests that women who undergo emergency caesarean section are more likely to report negative wellbeing postnatally compared with women who have either a planned, instrumental or spontaneous vaginal birth (Cranley, Hedahl and Pegg 1983; Fawcett, Pollio and Tully 1992; Salmon and Drew 1992; Ryding, Wijma and Wijma 1998a). However, other literature disputes such findings (Chen and Wang 2002) and this issue requires further investigation.

The Edinburgh Postnatal Depression Scale (EPDS) was chosen for use in the follow up questionnaire for multiple reasons. It has been validated for use in a range of settings, including non-postnatal women (Cox, Chapman, Murray and Jones 1996). Many studies have used the EPDS as a measurement of depression and anxiety symptoms, in pregnancy and postnatally (Hannah, Adams, Lee, Glover and Sandler 1992; Fergusson, Horwood, Thorpe and ALSPAC study team 1996; Webster, Linnane, Dibley, Hinson, Starrenburg and Roberts 2000). The EPDS was used in the 'Greater Expectations?' postnatal questionnaire at six weeks providing a useful opportunity for methodological development in allowing the comparison of scores in the same women at six weeks and three years. Using the EPDS in this study also enables comparison with other studies.

There are limitations to the use of the EPDS in research. In clinical practice the EPDS is used as a screening tool six weeks postnatally to identify women at high risk of postnatal depression (those who score over 12), so that they can receive additional professional input (Cox, Holden and Sagovsky 1987). Green (2005a) urges caution in the way that the EPDS is used in research because to dichotomise women into two groups based on this cut off, is to suggest that a woman with a score of 13 is equivalent to someone with a score of 20. She therefore argues that the EPDS should be used as a continuous measure during analysis. Further, as EPDS is a tool that is familiar to women who have had a baby, they may have become adept at providing appropriate rather than honest answers.

The literature has also described the negative impact of caesarean section on self-esteem (Marut and Mercer 1981; Fisher, Astbury and Smith 1997; Chen and Wang 2002). A measure of self-esteem was included to identify how self-esteem relates to other aspects of maternal health and obstetric variable and also for comparison with findings from other studies. The Rosenberg self-esteem scale was chosen as one that has been used extensively in the literature and is relatively

short and concise thus amenable for use in a questionnaire. Although there are shorter tools with similar construct validity, for example, the Single-Item Self-Esteem Scale (Robins, Handin and Trzesniewski 2001) it was felt that the Rosenberg scale offered comparability with other research in this area.

There are many scales available to assess aspects of emotional health, but it was considered that the use of two such scales, in the context of an already comprehensive questionnaire, was an appropriate maximum. So that emotional health could be seen in the light of physical morbidity, questions relating to a range of physical problems were included in this section.

One of the primary questions of interest raised in Chapter 1 was the extent to which women might be affected by the birth stories that close friends and relatives had told them. Little was found in the literature pertaining to this, although Weston (2001) conducted interviews with six primigravid women and concluded that birth stories do influence women and are valued by them. Women in the current study were therefore asked directly about their own mothers' stories and those of close family and friends and how they had affected them. Finally, women were asked if they were prepared to be interviewed, and, if so, to provide contact details.

The final questionnaire was 27 pages long. Although its length was considerable it was in fact shorter than the second antenatal questionnaire at 35 weeks of pregnancy (31 pages long) and the six weeks postnatal questionnaire (37 pages long) and these had both had high response rates (90% and 91% respectively).

3.3.2.3 Presentation

The rationale for the format of the follow up questionnaire (FQ) hinged mainly around eliciting as high a response rate as possible. It was acknowledged that three years after the original study, many women would have changed address, perhaps more than once. The women who had completed questionnaires in 2000 had been extremely loyal; of those who completed the first antenatal questionnaire, there had been a 90% and 91% response rate for the subsequent two questionnaires. I felt that it was important, therefore, to retain the original presentation (A5 booklet with coloured cover and baby logo) so that the questionnaire would be instantly recognisable to the women. In 'Greater Expectations?' each questionnaire had a different coloured cover. For this questionnaire, a neon pink cover was chosen so that if the questionnaire became buried in a pile of "things to do" that it would remain easily identifiable and alert its owner to complete and send it off.

At points in the development of the questionnaire, the use of alternative forms of question, such as visual analogue scales, were considered. It was felt, however, that the style of questioning should remain similar to previous questionnaires. Questions comprised multiple choice, open and closed and numerous opportunities for free text.

3.3.2.4 *Covering letter*

Again, the familiar baby logo was used to head the explanatory letter (see Appendix 5). Women were thanked for their previous involvement in the study and appraised of the many ways that the results of the study had already been disseminated and of future plans. With survey research, the participant chooses whether or not to be part of the research by either completing the questionnaire or not. However it is still possible that the arrival of a questionnaire can cause distress, for example if it arrives on a painful anniversary, and this was acknowledged in the letter. Confidentiality was assured and a contact number provided for any questions of clarification.

3.3.2.5 *Pilot*

The purpose of the pilot was to assess the acceptability of the questionnaire to women in terms of the layout, comprehensibility of the questions and acceptability of the request for detailed personal information. As the target population was already defined and contact details potentially no longer current, the pilot was not intended to provide information regarding response rates.

As the women completing the questionnaire would now have three year old children, a pre-school nursery was chosen as the pilot site. The Head teacher gave permission for access and the Nursery nurses were also happy to be of assistance. Arrangements were made for the questionnaires to be distributed to the mothers (with self-sealing envelopes and covering letter) and a colour coded collection box was left in the nursery. Thirty-two pilot questionnaires were given out and eighteen were returned; a response rate of (56%). The pilot exercise led to changes in the wording of some questions, re-ordering and larger spaces for free text.

3.3.2.6 *Ethics approval*

Following Multi-Centre Research Ethics Committee (MREC) approval for the original 'Greater Expectations?' study, local ethics committees in all eight sites had given their consent. For the current study, application was made to the Northern and Yorkshire MREC. They gave their agreement in principle, requisite on further information and minor changes. Their main concerns and the researcher's response to them were:

1. The committee was concerned that 'the long-term psychiatric wellbeing of subjects might be related to the condition that caused the requirement for emergency caesarean section, rather

than the operation itself'. They were reassured that all aspects relating to antecedents of caesarean section as well as sequelae of the surgery would be considered during analysis and interpretation of the data.

2. The committee required further information on the hypothesis that would be tested and the statistical power of the research to address it. They were reminded that the study was mainly descriptive in nature but that the underlying hypothesis was that 'women who had an emergency caesarean would be less willing to have a subsequent pregnancy'. A power calculation was provided based on a conservative response rate of 50%. It demonstrated that the study would have 92% power to detect a 20% difference between groups in women's willingness to become pregnant again at the 5% level of significance.
3. The committee required more specific information on the counseling arrangements that would be available to participants. They were informed that the researcher, who is an experienced midwife, but not a trained counsellor, would suggest to any woman who appeared distressed by her experiences, to contact her General Practitioner (GP). The GP could then either refer her for counselling or back to the obstetrician / midwife she had been booked with, to review what happened during her labour and birth. It was emphasised that the researcher would not pass comment on what was good or bad care.
4. The committee requested that additions were made to the patient information sheet, including; it should be explained that there was a possible risk of anxiety or distress by participating. Accordingly, changes were made to the information sheet (see Appendix 6).

The committee was satisfied with the information and amendments made, and gave final ethics approval on April 10th 2003.

3.3.2.7 Participants

A key aspect of the investigation was to explore the birth experiences of women who had unplanned caesarean birth in relation to those of women who gave birth by other means. Therefore, rather than focus exclusively on women who had an emergency caesarean, it was appropriate to include all eligible women in the 'three-year survey'. One of the advantages of this cohort of women was that there were extensive data regarding both antenatal wants and expectations and subsequent childbirth experiences and postnatal wellbeing.

3.3.2.8 Data collection

In May 2003 1266 eligible women were sent a postal questionnaire (FQ) approximately 3 years after the index birth. In order to maximise the response rate, a Freepost envelope was supplied.

3.3.2.9 *Response rates*

Seven hundred and thirty eight valid questionnaires were returned, giving an overall response rate of 58%. When the original study ‘Greater Expectations?’ was undertaken, however, it had not been considered that the women would be followed up and no attempts had been made to maintain an up-to-date list of respondents’ addresses. Hence, when questionnaires were sent out in 2003, a message was printed on the envelope ‘please forward or return to...’ so that women who had moved away could be identified. A reminder letter and duplicate questionnaire were sent to non-responders approximately 6 weeks after the initial mailing, yielding an additional 136 valid responses. A total of 206 questionnaires were returned unopened. Therefore, of the women who received one, 70% returned a valid a questionnaire. Five invalid questionnaires were returned: one completed by a woman’s mother-in-law and four blank (see figure 3.3)

3.3.2.10 *Coding*

Most of the questions had pre-coded responses. However, some questions required careful thought before meaningful codes could be applied. I coded each questionnaire individually prior to data entry to cover free-text response.

Some questions were followed by a subsidiary question asking ‘why was this?’ and space was given for a short free text response. Codes were given to free text responses as themes emerged, for example; (FQ page 6, A15) *Why did you stop [breastfeeding]?* Responses were grouped into: ‘not enough milk’; ‘sore/pain’; ‘long enough’; ‘teeth’; ‘freedom/body back’; ‘work’; and ‘baby stopped’. Such questions were not pre-coded because the range of responses was not previously known and I did not want to pre-empt the answers. Other questions that were coded to reflect the responses made included; child health and or behaviour problems (FQ page 4, A2); reasons for difficulties forming a good relationship with the Millennium baby (FQ page 5, A6); reasons for staying in hospital, other than for the birth of a baby (FQ page 19, D12) and health problems since the birth (FQ page 21, E2).

A particularly complicated free text response to code was on the opening page where women were asked to identify important events since 2000 (FQ page 3). Studies have shown that people who experience stressful life events are more likely to become ill, either mentally or physically (for example, Rijdsdijk, Sham, Sterne, Purcell, McGuffin, Farmer, Goldberg, Mann, Cherny, Webster et al 2000; Buljevac, Hop, Reedeker, Janssens, meche and Doorn 2003). This relationship is one that should be considered during analysis and I explored the options for a suitable coding strategy.

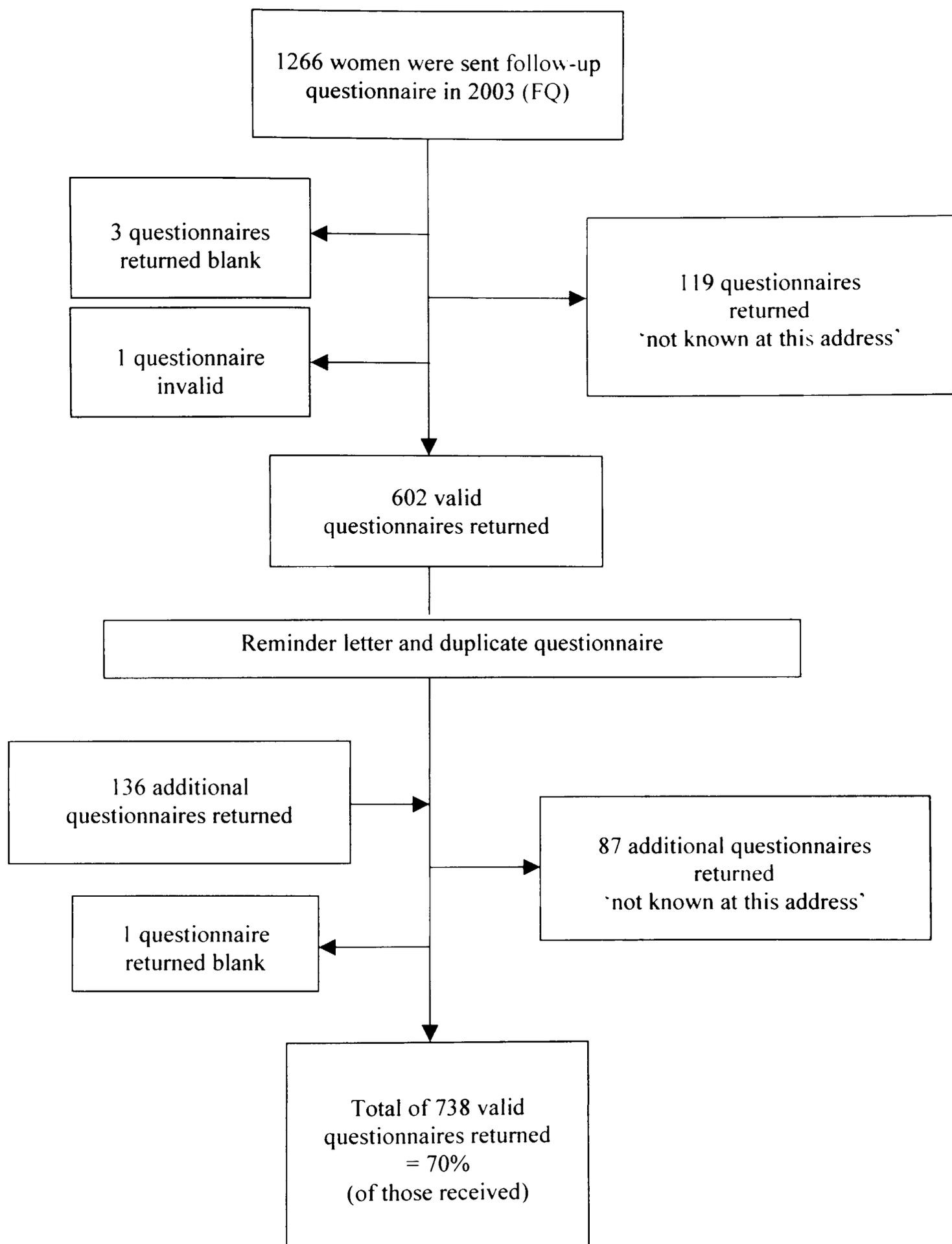


Figure 3.3: Flow diagram showing responses to the follow up questionnaire

Holmes and Rahe (1967) developed the 'Social Readjustment Rating Scale' (SRRS) by compiling a list of various life events which preceded patient's illnesses derived from their clinical experience. These events were weighted by a convenience sample of 394 men and women and then ranked to give rise to the scale. Whilst there have been more recent studies exploring life events using different measures (Kendler, Karkowski and Prescott 1999), the SRRS is particularly useful because of the numerical values attributed to each event and the ability therefore to compute individual scores.

However, it would be simplistic to suggest that the direction of association is one-way. Studies have demonstrated that ill health can potentiate major life events such as divorce and loss of employment (for example, Kamath and Kumar 2003). Personality attributes, such as locus of control, and previous life experiences also mediate how an individual perceives an event. There are more discerning measures available, such as the Life Events Check-list (LEC) which lists 46 life events with space for the respondent to add additional events and to indicate whether they had a positive or negative impact and how stressful each had been (Johnson and McCutcheon 1980). However, as the impact of life events was not the main aim of the current study, taking up valuable space and respondent time completing such a scale was not warranted. Forty four percent of respondents made an entry in the free-text box, with 18% identifying 2 life events and 8%, 4% and 1% stating three, four and five events respectively. To capture all events listed by women, five variables were created in SPSS and each event was coded using SRRS and entered onto the database. A total score was then created for each woman.

Further open-ended questions

To capture the sentiments behind further free text responses, these were initially coded as being either: 'very positive'; 'positive'; 'mixed'; 'negative' or 'very negative'. This applied to questions: A16; C11; C13; C19; C23; C28; C34 and C35 (later coded in more detail: see Chapter 6); D13; D14; E20 and E21.

3.3.2.11 Data entry and cleaning

A clerical officer entered the data onto SPSS. Although this saved the researcher valuable time, many hours were then spent 'cleaning' the data, identifying errors in both data entry and coding. A range of methods were used to achieve this, for example, running frequencies and spotting rogue numbers. Further errors were identified by creating cross-tabulations, for example, 'did you have a caesarean?' by 'mode of birth' (there should not be anyone who said 'yes' to caesarean cross tabulated with 'spontaneous vaginal birth').

3.3.2.12 Analysis of quantitative data

The computer programme SPSS version 12 was used for data analysis. This package was suitable for managing a large data set and had been used for 'Greater Expectations?' Variable codes were developed to represent the new data and they were added to the existing database. Some questions required recoding so that the appropriate value could be attributed to each response. For example, Rosenberg's self-esteem scale in which the response options range from 1=strongly agree to 4=strongly disagree, yet the direction of the question varied. Similarly, the EPDS responses were recoded to reflect the true value of the responses. Occasionally, the categories within variables were grouped together to avoid the problems associated with small cell sizes. Where analysis has involved a recoded variable, this has been explicitly stated (see Appendix 9).

Bivariate analyses were undertaken using chi-square for categorical data and analysis of variance (ANOVA) for continuous data. Binary logistic regression was used in the development of models to predict group membership and this is further described in Chapter 4.

3.4 Phase 2: In-depth interviews

The second phase of the study involved semi-structured interviews, which were tape recorded with the woman's consent. The purpose of the interviews was to encourage women to give their account of the millennium birth. The results of the quantitative analysis informed the line of questioning adopted in the interviews and issues raised during the interviews informed subsequent ones.

3.4.1 Rationale for using semi-structured interviews

The purpose of the interview phase was multiple. The survey data would enable me to make associations and test hypotheses, but I also wanted to understand why a woman chose particular options in the questionnaire. Although questionnaires are extremely valuable in being able to cover a wide range of issues in a short space of time, they often fail to explore the depth of feeling behind the responses. I aimed to generate data that were deeper and supplementary to that gleaned from the questionnaires. I also wanted women to tell their stories unfettered by the presence of other people so that they could be open about their feelings and emotions and not influenced by the accounts of others. I chose interviews rather than focus groups therefore, so that personal reflections could be focused on and developed by one to one interchange. Engaging with a woman on this basis also helps minimise the potential problem faced when a woman finds it difficult to articulate her feelings. An interviewer can give time and encouragement without worrying that an enthusiastic focus group member might interrupt or take over a discussion.

Interviews can take many forms but those that are loosely structured and not conducted like a face to face questionnaire allow the respondent the prospect of focusing on and emphasising issues that are of particular importance to her. Unlike structured interviewing, where the interviewer plays a neutral role (Fontana and Frey 2003) semi-structured interviewing can allow careful probing and an individual approach to each woman.

Burgess (1984) used the term 'conversation with a purpose' (page 102) to describe the nature of a research interview. Conversation implies that both parties are free to contribute naturally to the discussion and indeed this is how some research has been conducted (Oakley 1981). During most interviews however, the interviewer sets the agenda with the aim of helping the woman to explore some issues in more depth than others. A potential pitfall may be encountered however if the interviewer only probes aspects of the woman's story that are high on her own agenda and fails to pick up on other issues of importance to the woman.

There were also some methodological issues that I wanted to understand. For example, do women who write very little in questionnaires have nothing to say? And how do women's views change over time? These issues are explored in Chapter 8.

3.4.1.1 Ethical considerations

One of the main considerations with this study is that it could have caused the woman to become distressed by recounting painful memories. It was therefore important to be honest when explaining to women what the research was about and confirming that they understood. They could then make their own decision regarding whether or not to participate, by considering the nature of the research and the methods of data collection in the context of their personal circumstances. Some women know that they will find it difficult to tell their story but feel that there are important messages for service providers. Women were informed at the beginning of the interview that the tape could be stopped at any time.

3.4.1.2 Selecting participants

Recruitment for this phase started during the questionnaire phase, when women were asked to indicate on the follow up questionnaire if they would be willing to be interviewed in their own home. It was decided to interview women in the north of England initially (4 health districts), unless there were specific indications to explore in more detail the birth story of a woman who happened to live in the south. This was to keep the distance travelled and time and cost incurred to a minimum. As the main focus of the study was to explore the impact of emergency caesarean birth, only women who had an emergency caesarean were considered for interview. Of the women

who returned a questionnaire 85 had an emergency caesarean and of these, 54 were happy to be interviewed (64%).

Women were then selected for interview based on analysis of the questionnaire data. Initial results showed a range of feelings regarding the emergency caesarean birth experience. For example, univariate analysis revealed a range of responses to the question 'How do you feel when you look back on your experience of birth in 2000?' (C30). Although women who had an emergency caesarean were more likely to be 'unhappy' than women who gave birth by other means, 68% were 'happy' (see table 3.1). This range of emotions warranted further exploration and formed the basis for selection of the first round of interviewees.

Table 3.1: Responses to the question 'How do you feel when you look back on your experience of birth in 2000?' by mode of birth

	very happy or quite happy	very unhappy or quite unhappy
	%	%
Planned caesarean	89	11
Unplanned caesarean	68	33
Instrumental	79	22
Spontaneous vaginal birth	94	6

$\chi^2 = 59.968$ $df = 3$ $p = 0.001$

It was also interesting to look at this issue within the context of how women had felt six weeks after the birth, in terms of how fulfilled and satisfied they had been. Hence women were chosen to represent a mixture of responses, for example, ID 747 felt unfulfilled and dissatisfied at 6 weeks but at three years felt very happy (see table 3.4). Women were also chosen to represent a range of parity. Thus interviewees represented women who could provide insight into why a birth is experienced and / or looked back on in both positive and negative ways.

3.4.1.3 Interviews: Round one

Interviews were arranged in rounds, the first of which comprised 12 women. Although it would have been ideal to select each participant in response to the previous interview, in practical terms this would have significantly increased the length of time devoted to interviewing. For example, on some occasions it was up to four weeks from my initial telephone contact with the woman, to the proposed interview date. If I had arranged each interview sequentially, this process could have been protracted. By arranging interviews in groups, the interview period was contained over a period of months rather than years.

Identified women were sent an information letter (Appendix 6) explaining the interview process and a consent form (Appendix 7). The letters were sent so that they arrived on a Saturday morning, hopefully when there is more time to read the post. The letter stated that I would ring them the following week, and I kept a careful log of who I had rung and the plans we made. It also stated that I would collect the consent form when I came to do the interview, but three keen women sent them back, signed, to the Research Unit. All women who were identified and approached to participate in phase one were still happy to be interviewed when I telephoned them (except one whose brother had recently died). Interviews were arranged at their convenience, which occasionally meant meeting them in the evening or at a weekend.

3.4.1.4 Interviews: Round two

The rationale for selection of subsequent women was based on further qualitative and quantitative analysis. Women were chosen to represent a range of factors that might have influenced their perception of the birth. For example; women who had been involved in the decision to have a caesarean and those who had not, women who had had a baby before and those who had not (see table 3.5). Another 12 women were identified: one woman declined to take part, stating that she had changed her mind and one woman never answered the phone therefore two other women were identified to take their place. However, unlike interview round one, not all women were contacted at the same time, to allow for the possibility that saturation might occur before all women had been interviewed. Emerging theory was explored through 'theoretical sampling' (Strauss and Corbin 1998), that is, when the conditions under which the sampling occurs vary. Five women were interviewed, with the rate of new issues emerging diminishing, then another two and then a final two to be sure that saturation had occurred. Saturation is reached when no new themes emerge from the data and 'further search for appropriate instances may become a superfluous exercise' (Bryman 1988, page 83). Taking a pragmatic approach Strauss and Corbin (1998) state that:

'Saturation is more a matter of reaching a point in the research where collecting additional data seems counter productive; the 'new' that is uncovered does not add that much more to the explanation at this time.' (page 136).

The timing of round two, August 2004, made recruitment and organisation of dates a much lengthier process than phase one. Women were more difficult to contact due to the summer vacation and when I did manage to get hold of them it was often more difficult to set up interview dates as the 'Millennium babies' were about to start school for the first time. Nevertheless, women were willing to find time to take part and nine further interviews were ultimately arranged.

3.4.2 Developing a topic guide

A topic guide was developed (see Appendix 8) to help me identify the main issues I needed to explore during the interviews in relation to the objective of the research. Indeed the first part of the guide outlined the aim and objectives of the research so that I re-read them before each interview. The next part of the guide had a space for me to note key features from the 'Greater Expectations?' questionnaires, for example: age, parity, pain relief etc. The main body of the guide had eight broad questions, each with examples of subsidiary questions that I could ask to elicit further depth and detail. As I was conducting semi-structured interviews, the guide was created to help ensure that I covered similar issues with each woman and to act as an aide memoir if I lost my train of thought. It was not intended that I would read the questions from it or direct the interview to cover the topics in sequence, but rather that I would consult it before the interview to regain my focus. The guide did not preclude exploration of issues raised by women during the interview.

The topic guide was developed to encourage women to tell their birth story, starting with their most prominent memory. The opening question was very broad: 'I'm interested in women's experience of emergency caesarean ...what do you remember?' Subsequent questions covered the sequence of labour, decision-making, memories of the birth, feelings about staff and postnatal care.

In order to feel confident that I had covered all relevant issues, a seminar was convened with researchers in the department to discuss the content of the proposed topic guide in relation to the aims of the study. This was a very useful exercise, not least because it helped me clarify my own thoughts by going through the process of explaining my ideas and concerns to others. Some minor changes were made to the guide, including adding extra staging posts to the prompts, for example, 'how did you decide what pain relief to have?' A useful catch all question was developed to capture the essence of the impact of the emergency caesarean; 'looking back on your experience in 2000, how do you feel now?'

3.4.3 Pilot interviews

Before the interviews were organised, two pilot interviews were recorded with women who had had an emergency caesarean more than three years previously. Written consent was given and they were reassured that the content of the interview was not my concern but rather the use of the guide and tape recorder. These interviews were therefore not transcribed. They were useful in terms of helping me to regain confidence in my ability to conduct an interview; to listen, assimilate the

information I heard and hang on to the questions that arose during the process and feed this back into the interview.

3.4.4 The interviewer

I had some previous experience of conducting qualitative interviews during my Masters programme. I also had experience as a clinical midwife which involves taking detailed histories from women and interpreting the information given in order to assess their needs and provide individualised care. Having spent four years as a community midwife, I felt very relaxed going into women's homes and getting to know people I had not previously met. This experience also enabled me to take offerings from children and smile at babies whilst listening attentively to women's accounts of their birth and lives as mothers. However, the role of midwife and that of researcher, are on different planes. I was acutely aware that, whilst I needed to show that I cared about what a woman was saying and that I was interested in what had happened to her, that I could not counsel or advise her.

How the interviewer presents herself is an important decision to make. I decided to inform women that I was both a midwife and mother (in the pre-interview information sheet). I wanted them to expect me to understand the situations and circumstances that they had experienced. I felt that that by doing this they would be less likely to hold anything back. I am not claiming 'epistemological privilege' (Jagger 1989) by virtue of these roles but merely a mutual understanding of what it is to become a mother. I also acknowledge the influence this knowledge might have had on the stories that women told me, as Fontana and Frey (2003) point out:

'we cannot lift the results of interviews out of the contexts in which they were gathered and claim them as objective data with no strings attached' (page 91).

I purposefully dressed smart-casual, to show respect but not authority.

3.4.5 Interview procedure

Before each interview, the 'Greater Expectations?' questionnaires were collated for each woman, in addition to the follow-up questionnaire. The topic guide was modified slightly for each woman with key events and responses noted, so that I could refresh my memory before I met the woman. I felt I should demonstrate, where appropriate, that I had taken notice of her previous comments whilst maintaining a keen interest in how she felt about events subsequently. It was important that I showed this without coming across as though I was testing her consistency.

Interviews took place in the woman's home with the exception of two which were held in the woman's place of work at her request. After initial greetings and words of gratitude (from the researcher) I made general enquiries, usually about the child, while the kettle boiled. It was important to build up a rapport with the woman before the formal interview took place, so that she was used to chatting with me before the tape went on. If she started making comments about the birth, I would say something like 'I'd really like to hear more about that, can you tell me when I've got the tape running' so that I didn't miss anything important.

During all interviews, we were alone except for the presence of children, but that does not mean that we always had privacy. On two occasions male partners were in an adjacent room (door open) and their closeness made a tangible difference to the free flow of information. At the beginning of the interview I positioned myself at right angles to the woman and placed the tape's microphone between us, but stated that it wasn't switched on yet. I would then ask her if she'd had chance to read the information letter and whether she had any questions, either about what was about to happen or any aspect of the research. I then asked her for her signed consent form and informed her that we could stop the interview at any time. I had learned through my contact with women on the telephone how important the timing of the interview was, as women were often giving up time in between work and child care responsibilities. It was important, therefore that I ascertained when her next commitment was scheduled so that I did not cause inconveniences by making her late or rushed.

Some women asked for clarification before they started to talk, but most were able to launch into a detailed account of their experience, starting from a point that provided enough background to enable me to appreciate the context of their story. The interviews lasted between 45 minutes and 105 minutes but were usually about one hour. Recording was occasionally interrupted, mainly by children or because the woman became upset. It was rarely necessary to use all the questions on the topic guide as many points emerged during the flow of the woman's story. The guide was only consulted during two particularly difficult interviews, where the women gave very short answers to my questions and I was finding it difficult to encourage them to expand on their responses. In order to keep the flow of a woman's story going, I showed my sustained interest in what she had to say by maintaining eye contact and nodding my head.

After each interview, I made further 'field notes' on the topic guide, under the headings:

- What went well?
- What did not go well?
- How would I do things differently in future interviews?

These headings aided reflection on each experience. Key issues were also noted to help me to remember individual interviews, for example, 'woman had just been running' and 'children making boat out of cushions'. The only form of identification on the schedule was the identification number.

3.4.6 Analysis of qualitative data

Analysis of the interview data followed some of the principles of grounded theory in that analysis was concurrent with data collection (Glaser and Strauss 1967). Thus, the questioning during later interviews were developed from the findings of the previous interviews. Before formal analysis of the interviews began, tapes were re-listened to and summarised using bullet points. This enabled me to identify themes that could be explored in subsequent interviews without waiting for a complete transcript of the interview. Field notes were re-examined and further memos were made regarding emerging ideas and further questions that arose from the interview summaries. Subsequent interview topic guides were revised to reflect issues that required exploration and verification.

Interviews were transcribed verbatim by a psychology graduate who was asked to make meticulous note of pauses, laughter and intonation of voice and to note any uncertainties using the tape counter. It has been suggested (for example; Tarling and Crofts 1998) that to undertake one's own transcription enables the researcher to relive the interview and thus begin interpreting its significance. I did not transcribe the interviews myself, in order to save time, however the activities described above enabled me to become immersed in the data before transcription was completed. I also listened to the tapes again, following initial transcription, to identify where words had been misheard.

Analysis was facilitated by the use of the computer package Nvivo version 2.0. I had experienced using a paper cut and paste technique during qualitative data analysis on my Masters programme and as this had only involved 10 interviews I knew that a more efficient system would be required in order to manage larger quantities of data. There is a range of computer assisted qualitative data analysis software (CAQDAS) available for researchers to purchase which have revolutionised the management of large volumes of transcribed interview material. However, as Froggatt (2001) warns, 'the interpretation and analysis of data will always remain the responsibility of the researcher' (page 517). CAQDAS facilitates the researcher to ascribe codes and categories for the data, enables fast retrieval of data pertaining to specific codes and provides an efficient system for organising large data sets. It was a largely pragmatic decision to use Nvivo influenced by the fact

that other members of the research unit had experience using this software and it was supported by the university information technology department and training department. However, the development of Nvivo was influenced by grounded theory (Gibbs 2002) hence its design was sympathetic to my approach. I had attended an introductory workshop on its use prior to undertaking my doctoral studies and felt well placed to build on my rudimentary knowledge, supported by the infrastructure identified and by undertaking further instruction.

Transcribed interviews were imported into Nvivo and a process began of reading the data and ascribing codes to selections of text that reflected women's emotions, attitudes and experiences. Only the relevant sections of the interview were included in the data analysis. For example, where I was focusing on women's perceptions of their carers during labour, I did not include data that related to postnatal care or data that were not related to the index birth. In the first stages of analysis I examined the data for significant phenomena which were then identified by a code. Each code represented a 'concept' or 'abstract representation of an event, object, or action / interaction' (Strauss and Corbin 1998) and was sometimes named using the woman's original words. Through further exploration of the text and a process of comparative analysis, other phenomena with similar characteristics were given the same code. The same piece of text could contain multiple phenomena and would therefore have a number of codes ascribed to it.

As analysis continued I occasionally returned to the taped version of the interview to clarify meaning, and to relive the emotion conveyed in a woman's voice that was not evident from the typed transcript. As Mason (2002) observes, 'For some verbal utterances, there are simply no written translations' (page 77). Field notes and maps aided my memory of each woman and this meant that I could easily identify when a transcript did not provide a complete picture of the woman's story. My supervisors had access to the data at all stages and listened to tapes, reviewed transcripts and saw selections of coded data, providing independent scrutiny of the analysis. The original transcripts were also consulted, as the written account was developed in order to confirm the context of a key quote and its membership of a particular category.

A strategy was employed of using codes to reflect subtle differences between data, in the knowledge that these could be merged at a later date, where appropriate. Occasionally duplicate codes were unintentionally created because of the large numbers that were generated and these were merged only after making sure that they reflected the same meaning. Throughout this process memos were made regarding what a code did and did not reflect.

As more codes were created (concepts identified) they were categorised under headings that reflected the phenomena in more general terms. Again as further concepts were recognised, subcategories were identified that explained the when, where, why, what and how of the phenomena (Strauss and Corbin 1998). During a process of 'axial coding' (Strauss and Corbin 1998) categories were linked to each other through their properties and dimensions. This process was facilitated by the use of 'model explorer' in Nvivo and copious pen and paper diagrams exploring potential links between categories.

The process of analysis moved a series of individual accounts into collection of interrelated concepts that explained women's experiences in a more general way. This abstraction of the main categories led to the development of the core category that was clearly applicable to all cases. The following section presents the characteristics of the questionnaire and interview samples.

3.4.7 The respondents in 2000 and 2003

As can be seen in table 3.2, the respondents in 2003 were broadly similar to those in 'Greater Expectations?' in 2000. Of particular importance is that they represent similar proportions of parity and mode of birth. Analysis of the characteristics of respondents in 2000 is limited to women who completed a postnatal questionnaire and for respondents in 2003, analysis is limited to those who completed a follow up questionnaire. The maternity units have fictional names.

The response rate for Greater Expecations? was 60% and there was no information available regarding the characteristics of the non-respondents. However, the respondents in 2000 were representative of the childbearing population at the time, in so far as can be judged using major demographic factors. In England in 2000-01, 67% of births were spontaneous, 21% of births were by caesarean and the remaining 12% were instrumentally assisted (Government Statistical Service 2002), the same proportions as in 'Greater Expectations?' The age and parity of respondents were similar to those of the general population in 2000-01, with 18% being over 35 years at the time of the index birth (versus 16%) and 43% being primiparous (versus 38%)

However, when responders to the follow up questionnaire were compared with non-responders, there were some significant differences (table 3.3). Responders were significantly older and better educated than non-responders, and this phenomenon is consistent with many other studies (for example; Small, Lumley, Donohue, Potter and Waldenstrom 2000). It is likely that younger women are more likely to change their place of residence than older women and will therefore have been less likely to have received a follow-up questionnaire. Responders were less likely to have been worried about the thought of pain in labour, have a less positive attitude to intervention and less likely to have had an epidural. The higher proportion of multiparous women who

Table 3.2: Characteristics of respondents in 2000 compared with respondents in 2003

Characteristic		Responded to questionnaire	
		2000 % (n=1286)	2003 % (n=738)
Age	Under 21	5	3
	21-34	78	78
	35 or over	18	19
Education	No qualifications	4	3
	'O' level equivalent	27	26
	First degree	17	18
Employment	Never worked	1	1
	Professional	14	16
	Clerical / secretarial	32	35
Parity	Multip	58	60
	Primip	43	40
Sex of baby	Girl	50	49
	Boy	50	51
Baby admitted to SCBU		10	8
Maternity Unit	Shorebridge	13	13
	Teedale	13	12
	Underhill	13	13
	Valehampton	13	13
	Willowford	12	12
	Exington	10	10
	Wycheater	10	11
	Zedbury	12	11
Attended classes		36	37
Not worried by thought of pain in labour (antenatally)		16	17
Pro-intervention score (see glossary) (mean)		23 (mean)	22 (mean)
Had an epidural in labour		38	36
Had intervention in labour		60	58
Mode of birth	Planned caesarean	9	8
	Unplanned caesarean	12	12
	Instrumental birth	12	12
	Spontaneous vaginal birth	67	68
Not felt at all depressed (self-rating postnatally)		51	53
EPDS (mean)		5.7 (mean)	5.4 (mean)
EPDS above 12		10	9
Always felt treated as an individual		68	68
Birth was fulfilling		75	74
Satisfaction (0=unsatisfactory experience, 10 = could not have been better)	5 or less	18	18
	6-8	42	44
	9 or more	40	38

Table 3.3: Characteristics of respondents in 2003 compared with non-respondents in 2003

Characteristic		Responded to 3 year follow-up questionnaire?	
		Yes % (n=738)	No % (n=322)
Age**	Under 21	3	7
	21-34	78	77
	35 or over	19	16
Education*	No qualifications	3	6
	'O' level equivalent	26	30
	First degree	18	15
Employment	Never worked	1	1
	Professional	16	13
	Clerical / secretarial	35	27
Parity*	Multip	60	54
	primip	40	46
Sex of baby	Girl	49	52
	Boy	51	48
Baby admitted to SCBU*		8	12
Maternity Unit	Shorebridge	13	12
	Teedale	12	15
	Underhill	13	13
	Valehampton	13	12
	Willowford	12	11
	Exington	10	11
	Wycheater	11	9
	Zedbury	11	12
Attended classes		37	35
Not worried by thought of pain in labour (antenatally)*		17	14
Pro-intervention score (mean) **		22 (mean)	24(mean)
Had an epidural in labour *		36	42
Had intervention in labour		58	63
Mode of birth	Planned caesarean	8	11
	Unplanned caesarean	12	12
	Instrumental birth	12	12
	Spontaneous vaginal birth	68	65
Not felt at all depressed (postnatally)		53	48
EPDS (mean) **		5.4 (mean)	6.1(mean)
EPDS above 12		9	11
Always felt treated as an individual		68	67
Birth was fulfilling		74	76
Satisfaction (0=unsatisfactory experience, 10 = could not have been better)	5 or less	18	19
	6-8	44	38
	9 or more	38	43

- *denotes significance at the level $p < 0.05$ and > 0.01 . ** denotes significance at the level $p < 0.01$

responded in 2003 may confound this. Another consideration could be the possibility that women who view birth as an event to be 'got through' rather than experienced may be less likely to want to reflect on events surrounding birth by completing a detailed questionnaire. Caution should therefore be taken when considering the generalisability of these results due to the over / under representation of some categories of women.

Responders had significantly lower mean EPDS scores at six weeks than non-responders (5.4 vs 6.1) although this is unlikely to have been clinically significant. Indeed there was no difference between groups in the proportion of women who had an EPDS score over 12, the cut off used to identify women at risk of postnatal depression when the scale was originally validated (Cox, Holden and Sagovsky 1987). Although there were fewer women who responded to the questionnaire in 2003 who had had an elective caesarean birth, this difference was not statistically significant.

3.4.8 Characteristics of women interviewed

The following tables (table 3.4 and table 3.5) show the combination of characteristics of women selected for interview during the first and second rounds.

Table 3.4: Characteristics of women chosen for interview in round 1

Interview	ID	Fulfilment 2000	Satisfaction 2000	Looking back 2003	Parity
1	747	no	<5	Very happy	Multip ⁶
2	1343	yes	6-8	Very happy	Primip ⁷
3	544	yes	6-8	Very unhappy	Multip
4	1307	yes	6-8	Very happy	Primip
5	775	yes	6-8	No feelings	Primip
6	400	yes	6-8	Very happy	Multip
7	1382	no	<5	Very happy	Primip
8	1412	no	<5	Quite unhappy	Primip
9	705	no	<5	Very unhappy	Multip
10	975	no	6-8	Quite happy	Multip
11	305	no	<5	Very unhappy	Primip
12	1227	no	6-8	Quite unhappy	Primip

⁶ Multiparous at birth of index baby

⁷ Primiparous at birth of index baby

Twenty-one women were interviewed in 2004, four years after the index birth. The initial selection criteria were:

- a) that they had had an emergency caesarean birth and
- b) that they lived in the north of England.

All women had had an emergency caesarean section in 2000 except for one woman who had had an emergency caesarean for her first birth in 1998 followed by a ventouse in 2000 and an elective caesarean in 2002 [ID 1057]. She had written copious notes in her questionnaires and even telephoned me to see if I wanted to interview her. I therefore decided to arrange to meet her with the expectation she would be a source of valuable data.

Table 3.5: Characteristics of women chosen for interview in round 2

Interview	ID	Birth before	Induced	Anaesthetic	Choice	Parity
13	1375	Index only	Yes	Epidural	No say	Primip
14	830	Elec* since	No	Epidural	A bit	Primip
15	1057	Emcs** before	No	Epidural	N/A	Multip
16	433	Index only	Yes	Epidural	A bit	Primip
17	337	Index only	No	Epidural	No say	Primip
18	877	Index only	Yes	Epidural	No say	Primip
19	569	SVB***/forcep	No	Epidural	A lot	Multip
20	848	Emcs before	No	Epidural	No say	Multip
21	223	SVB*** before	Yes	General	A lot	Multip

*elective caesarean; ** emergency caesarean; ***spontaneous vaginal birth

All women lived in the north of England except for one [544]. As noted in section 3.4.1.2, I had intended only to interview northern women in order to keep travel time and cost to a minimum. However, I contacted and arranged to meet one woman whose place of residence I thought I recognised as a northern village but which, on further investigation, was in fact much further south. As she had been very keen to take part, I kept the appointment.

3.5 Summary of chapter

The current study follows women who took part in the study 'Greater Expectations?' in 2000. All eligible women were sent a follow-up questionnaire, three years after the index birth and a purposive sample of twenty-one women took part in semi-structured in-depth interviews when their child was four years old. During analysis, further questions were raised leading to further exploration of existing data and additional data collection.

The age, parity and mode of birth of respondents were similar to the general population at the time. Responders were significantly older and better educated than non-responders.

The following chapter explores how women who gave birth in 2000 felt about their experience when they looked back on it in 2003.

CHAPTER 4: Three women

This chapter presents three women who had an emergency caesarean birth as case studies. It combines data collected during their pregnancy and postnatal period and also data collected in the follow-up questionnaire three years after their index baby was born and during the in-depth interviews when their child was four years old. There are two main purposes to this chapter. The first is to provide the reader with a sense of the complexity and individual nature of women's experience of emergency caesarean. Secondly, this chapter will highlight the derivation of the different kinds of data and emphasise the importance of using combined methodology in this study.

The women were chosen to reflect a range of responses to a question asked in the follow up questionnaire three years after the birth: 'How do you feel when you look back on your experience of birth in 2000?' (FQ page 14, C30). The women's names have been changed to maintain their anonymity and protect their confidentiality. Each woman and her experience is described using sub-headings which reflect the source of the data.

4.1 Rachel

Rachel was chosen for this case study because she chose the response 'very happy with the way things went' when asked how she felt about her birth looking back, in the follow up questionnaire.

4.1.1 First antenatal questionnaire

Rachel was a 42 year old civil servant when pregnant in 2000. She was white, educated to Masters degree level and married to an architect. This was her first successful pregnancy and she was booked to give birth in hospital. Rachel had most of her antenatal checks at the hospital through her own choice and saw a hospital doctor for these.

4.1.2 Second antenatal questionnaire

During her pregnancy, Rachel did not attend classes as they were held at 'inconvenient times' although she wanted to 'know as much as possible' about what might happen during labour. When talking with health professionals she was able to discuss the things she wanted to with them fully 'most of the time'. She wrote a birth plan, which postnatally she reflected had been a useful thing

to do. She did not mind whether or not she could move about during labour or choose the position in which she gave birth. She would have 'quite liked' to have been cared for in labour by a midwife she had already met and to have that midwife with her at all times, but she said that 'it probably won't happen'. She 'very much' wanted to have one midwife who saw her through labour from start to finish but again thought it unlikely to happen.

Rachel wanted and expected to be in control of non-emergency decisions during her labour, but in an emergency situation expected staff to involve her in the discussion before reaching their decision. She would have 'quite liked' to have been in control of what doctors and midwives did to her during labour but did not have any expectations that this would be the case. It was 'very important' to her that giving birth would be a fulfilling experience and she was 'sure' that it would be.

Rachel was 'very worried' about the thought of pain in labour, she expected it to be 'unbearably painful' and wanted 'the most pain-free labour' that drugs could give her. She therefore said antenatally that she 'definitely' wanted an epidural in labour and knew a lot about this form of pain relief and nothing about any other. She 'didn't mind' about the thought of having drugs to speed up labour or having her waters broken, but she 'definitely didn't want' an episiotomy and 'would prefer to avoid' a forceps or ventouse birth. Rachel knew 'quite a bit' about what a caesarean section involved and had 'no expectations' about whether or not she might have one. She 'would prefer' a trial of labour if she was told that she had a 50:50 chance of needing a caesarean.

4.1.3 Postnatal questionnaire

Six days before her due date, Rachel gave birth to a baby girl who weighed eight pounds and half an ounce. The baby was born by emergency caesarean for 'failure to progress' and did not have any problems at birth or need to go to the special care baby unit. She was awake during the birth and when the baby was born she had close contact with her within the first hour and breastfed her. Rachel felt that she had 'a bit of say' about the decision to have a caesarean and felt that decision was the right one. She had an epidural for pain relief and was never left alone at a time when it worried her. During labour she felt, 'frightened' (initially) 'involved', 'excited', 'alert' and 'confident' ('because of the care I received'). She had not met any of the midwives who looked after her before but did have one who saw her through from start to finish. She felt in control of what staff were doing to her 'most of the time' as they discussed things with her before making emergency decisions. Rachel described the staff as, 'supportive', 'informative', 'humorous' and 'considerate' feeling that she was always treated as an individual and with respect: 'they treated me as an intelligent equal'.

Six weeks after the birth Rachel was feeling 'very tired' and 'mildly depressed'. She also felt 'isolated because of not being able to drive and overwhelmed by the change of life'. She felt the 'best' thing about the birth was 'hearing my daughter emerge – loud screams and cries and seeing her beautiful face as she was put into my arms (having a section meant I couldn't feel or see anything)'. The 'worst' thing was not being able to give birth normally: 'disappointment is an understatement'. She was surprised by 'the amount of time that professional staff spent with me – better than I thought. Also being treated humanely – did not feel on a conveyor belt'. She felt that the birth had been a fulfilling experience and gave it a satisfaction score of eight out of ten.

4.1.4 Follow up questionnaire

Rachel breastfed her daughter for eight months, only stopping because she went back to work. She stated that she did not have any difficulty forming a good relationship with her daughter. Her previous obstetric history showed that she had a miscarriage in 1999. She had not had any further children and had 'not made any decision about what to do' but had not been influenced by her Millennium birth experience. Three years after the birth Rachel's memories were 'very clear as if it were yesterday' and she thought about it 'quite often'. She was still pleased about her decision to have an epidural in labour, 'I found the pain really stressful and the epidural made me feel more relaxed about my long labour'. She was 'relieved' when the decision was made to have a caesarean, 'I couldn't wait for it all to be over'. Rachel described the staff in theatre as 'quite relaxed' and said that they explained what they were doing 'throughout'. She said, 'it was like being at the hairdresser's. We all talked about our holidays'. She described the staff as 'informative', 'polite' and 'considerate'. Looking back she was 'very happy' with the way things went and thought that her husband was 'quite happy'. Rachel did not feel that either her own or her baby's life had been in danger at any time during the birth.

Reflecting on her postnatal care, she remembered being in a single room, and that both a midwife and a doctor came and sat down with her to talk about how the birth had gone. She was 'often' asked if she needed any help with baby care and 'always' felt she could ask for help if she needed it. She described the ward as 'busy', 'orderly' and 'friendly' and she stayed in hospital for four days, which she thought was 'too long'.

Rachel remembered being 'happy and relieved' to leave hospital and had support from her partner, mum and sister, which she felt was generally enough. She has not had any health problems since the birth, had a low EPDS and high self-esteem. In response to questions about her own birth, she knew that she had been a 'normal birth' herself because her mother had described the details of her

birth to Rachel before she had her baby. Rachel did not feel that it made any difference to how she felt about her own birth and she was not influenced by the birth experiences of family or friends around the time of her pregnancy. When asked if she had any other important issues she wanted to raise about her Millennium birth she spoke about getting the baby into a routine in the weeks following the birth. She would have liked more advice and said, 'New mums really need to be given alternatives to allow us to choose what works for us and our babies'.

4.1.5 Interview data

Rachel remembered being in labour for 24 hours before she had the caesarean. During her long labour, she had thought to herself that she 'was never going to manage this' but felt quite relaxed because she was not in any pain. When asked about her choice to have an epidural she said:

I decided on my birth plan that I wanted an epidural [...] I'm not one of these people who want to go back to the cave man days and erm do everything without pain relief. Erm, I wanted it to be a positive experience and that meant pain-free for me [...] Absolutely crystal clear that I wanted an epidural.

She remained adamant that she did not want to experience a painful labour:

And erh, I remember when I went into the labour suite, the, the midwife on duty said, "Ohh, would you like a lavender bath?" and I said, "No I want drugs!" (laughs) "I do not want a lavender bath!"

Rachel described how the staff kept her informed of her progress and what that meant regarding the way the baby might be born, but did not feel that she contributed to the decision to have a caesarean. She had been quite happy about this:

Because this was my first baby, I was absolutely clueless. Erm, and I guess I just put 100% of my trust in, in people to know what they were doing.

When Rachel talked about being prepared for theatre, she did not express any concern or trepidation:

I remember feeling quite excited actually, because I knew it was going to happen, I wasn't in any pain at all, and I knew that within the next ten minutes I was going to have a baby – so I was, I was really quite excited about it.

Her calm manner, she felt, was maintained due the presence of her husband and sister and the way that the staff behaved during the operation:

I know it sounds daft, but erm, it, it felt perfectly normal what they were doing, and the fact “oh, you know, I’ve just come back from Corfu”. “oh, you’ve got a nice tan” – it was absolutely bizarre, and that’s what I remember – just the kind of normality of it all, even though it wasn’t. It, it felt normal.

Despite the normality of the event, Rachel still had no idea what the caesarean involved, in terms of the surgical procedure and what was done to her body.

I haven’t seen a caesarean section on, on television on medical programmes, and I would love to, because I have no idea what they did, what they did to me, ‘cos they’d got a bl, a sheet up. I would love to see, erm, I’d love to see what the experience is. But I’ve no idea, no idea. And my husband’s said a few cryptic things about what they were doing, but he’s never actually described it to me, so I’ve no idea what it was like.

Following the birth she remembered feeling ‘absolute euphoria and relief that it was all over’ but once the anaesthetic had worn off she ‘felt a complete physical mess’. She did not enjoy being dependent on others:

I’d got to be helped to the shower, I’d got to be helped to be washed, and I just felt that, I just felt that erm, that there were things that I could no longer do for myself [...] I felt a bit helpless in that respect.

Rachel found that she was emotionally labile in the weeks following the birth. She put this down to the fact that she had an exciting and demanding career before her daughter was born:

I’m used to being a, a manager at work. I’m used to having a job which is intellectually stimulating [...] I’m used to asking someone to do something for me and it gets done. And all of a sudden you’ve got this thing that won’t do as you want it to (laughter) who gets you up three times a night for a feed [...] it’s just such a shock.

Her frustration afterwards was compounded by the difficulties she faced trying to care for her daughter and get herself about. For her, the physical impact of the caesarean postnatally was worse than the actual experience of birth:

It’s the aftermath of the caesarean, when you’re trying to get up in the middle of the night to breastfeed the baby, and you know, you physically can’t lift yourself up off the bed ‘cos it’s hurting so much. And the fact that I couldn’t drive, or get out anywhere. It...it’s the aftermath really that was worse than the run up to me.

I wouldn't want you to think that my experience of a caesarean was negative. because it wasn't – it, it erm, it was a positive experience having it, you know, I just wish that someone had told me what I. what it was going to be like afterwards. in terms of the recovery period, 'cos it, I did feel it was a fairly long recovery period from the caesarean.

Four years after the birth, Rachel had made a pragmatic evaluation of her experience of emergency caesarean:

But to me, having a caesarean was, was a, a positive experience. It's not one that I would have opted for. Erm. I think that the, the staff were brilliant they were normal and I don't know how much longer they could have let me go on without some distress being caused to the baby. They didn't get to the point where [baby] was in distress, thank god, so. they just took a judgement that the time was right. And they probably had a slot in the operating theatre! (laughs).

4.1.6 Field notes

Rachel had indicated on the follow up questionnaire that she would be happy to be interviewed. I therefore sent her an information letter and a consent form, which I informed her I could collect on the day of the interview. However, she sent back the consent form signed and wrote on the bottom that she would rather be interviewed in her office at work and that I should contact her secretary to arrange a date and time. I wondered how the environment might impact on the flow of the interview, whether she would be 'wearing a different hat' and how this might influence her responses. This was only the second interview and the previous one had been conducted with interruptions from the four year old child and the woman was clearly talking about her experience as the mother of the girl who played noisily in front of us. However, I acknowledged that this was Rachel's choice and perhaps she had decided this would be the most suitable place because she could arrange to be free from interruptions and unimpeded by the family around her. Also as she worked full time, weekends or evenings might not be a suitable alternative, as this would impinge on her leisure time.

When I arrived at her office, her secretary was expecting me and I could see Rachel had also noticed my arrival, as though she was anticipating the interview as an important event. I was offered a drink and shown into a private office where she instructed the secretary that she would be unavailable for the next hour. We were never interrupted. She was friendly and chatty, interested in the purpose of the interview and keen to divulge her experiences. Although she talked freely, she sat with her arms folded for the first 20 minutes. As the interview progressed however she became more animated and shared her feelings and emotions more readily. The interview lasted 55

minutes and she remained composed throughout. When asked if she would like a copy of the transcript when it had been written up, she said she would.

4.2 Sara

Sara was chosen for the case study because she chose the response ‘no particular feelings’ when asked how she felt about her birth looking back, in the follow up questionnaire.

4.2.1 First antenatal questionnaire

Sara was a 38 year old headteacher when pregnant in 2000. She was white, educated to Masters level and married to a farmer. This was her first pregnancy and she was booked to give birth in hospital. She expected to have most of her antenatal checks at the health centre and although she was happy with this, she did not feel she had had a choice. She expected to have a midwife for her antenatal care and again was happy with this but had not been asked who she might want to see. Given the option to comment on her maternity care so far she wrote:

As an older first time parent of a much wanted baby, I have appreciated the friendly ‘open’ attitude of the midwife.

4.2.2 Second antenatal questionnaire

Sara attended antenatal classes during her pregnancy and described them as ‘very good’ although she noted that their quality depended on the midwife who was leading them. When talking with health professionals she was ‘always’ able to discuss the things she wanted to with them fully. She said:

I consider myself fortunate in having professionals caring for me who are keen to answer questions and give information.

She wrote a birth plan and felt that this had been ‘a helpful’ thing to do when asked in the postnatal questionnaire. She ‘didn’t mind’ whether or not she was cared for by a midwife she had already met and had no expectations about this. It was ‘very important’ to Sara that giving birth would be a fulfilling experience and was ‘sure’ that it would be. She wanted to be able to move around and change position in labour ‘very much’ and also wanted to be able to choose which position she gave birth in.

Sara wanted and expected to be in control of both non-emergency and emergency decisions during her labour. She would have ‘very much’ wanted to be in control of what doctors and midwives did to her during labour and the birth and ‘was sure’ that this would be the case. She was ‘a bit worried’ about the thought of pain in labour and only wanted ‘the minimum quantity of drugs to keep the pain manageable’. She had a wide knowledge of all methods of pain relief that might be accessible to her during labour and ‘preferred not to have’ either an epidural or Pethidine. She intended to use gas and air and breathing exercises during labour. Sara ‘preferred not to have’ drugs to speed up labour or an episiotomy. She knew ‘quite a bit’ about caesarean birth but did not expect to have one and would ‘prefer a trial of labour’ if her consultant thought there might be a 50:50 chance she might need one.

4.2.3 Postnatal questionnaire

Seven days after her due date, Sara gave birth to a baby girl who weighed nine pounds eight and a half ounces. The baby was born by emergency caesarean for cephalo-pelvic disproportion and fetal distress in the second stage of labour. She was awake for the birth and breastfed her baby soon afterwards. She felt she had ‘a lot of say’ about the decision to have a caesarean and felt it was the right one. The only word she chose to describe how she felt during labour was ‘challenged’. She did not have an epidural in labour, but did use TENS, Pethidine and gas and air. In a section of the questionnaire which asked if there was anything else to say about dealing with pain in labour, she wrote:

If I had realised how straight forward the section was I would have consented twelve hours previously as advised by midwives and doctor – I stubbornly believed I could deliver naturally – it was when the baby’s heart started to weaken that I consented.

Sara had not met any of the midwives who looked after her before nor was there one midwife who saw her through the whole of her labour. She felt in control of what staff were doing to her ‘most of the time’ and she described them as, ‘supportive’, ‘informative’, ‘sensitive’, ‘warm’ and ‘considerate’. She ‘always’ felt treated as an individual and with respect: ‘The quality of care was brilliant – and they were so busy’. In the six weeks after the birth she had encountered ‘persistent backache’, ‘problems with her breasts’ and ‘bowel problems’. She was feeling ‘quite tired’ but ‘not at all’ depressed. The best thing about the birth was ‘the baby arriving safely’. The worst things were, ‘the length of labour, watching the baby’s heart beat deteriorate on the monitor and being told I needed an emergency caesarean’. Sara felt that the birth had been fulfilling but she only gave it a satisfaction score of five to six out of ten.

4.2.4 Follow up questionnaire

Sara breastfed her daughter for six months until she went back to work. She stated 'we are currently trying for another baby'. She 'occasionally' thought about the birth and 'only a few things' were clear. She was 'glad that something was about to happen' when the decision was made to go to theatre. She described the staff in theatre as 'quite relaxed' and that they explained what they were doing 'throughout'. Looking back she 'had no particular feelings' about her experience and thought her husband was 'quite unhappy with the way things went' which she thought was because 'he found the length of time concerning'. She felt that her baby's life had been in danger but never her own.

During her hospital stay she was cared for in a single room. No one came to talk to her about the birth. She was 'never' asked if she needed help with baby care but she 'usually' felt that she could ask for help if she needed it. She described the ward as 'dirty', 'busy' and 'friendly'. She stayed in hospital for four days which she felt was 'about right'.

Sara was 'glad' to return home from hospital and did not report any problems with her health since the birth. She had 'no particular feelings' about the way she looked before she had her baby but three years later felt 'unhappy' with the way she looked, despite losing all her pregnancy weight. She had a low EPDS and a high self esteem. Her mother had not discussed the details of her birth with Sara but Sara knew that she had been a forceps birth. When asked if there were any issues she wished to raise about the Millennium birth she wrote:

I would have appreciated knowing how intense the pain would be so I could have psychologically prepared myself. I found it hard to come to terms with being so helpless at the time of the emergency section. It took me a few weeks to accept and adjust to it.

4.2.5 Interview data

Despite Sara saying in the follow up questionnaire that 'only a few things are clear' her chronology of the labour was described in great detail and she could remember the midwives' and doctors' names. She repeated the sentiment raised in the questionnaire that she wished she had known how painful it was going to be so that she could have prepared herself for it:

I don't know whether you can prepare for it or not, but I had no understanding just how difficult it was going to be. So, erm, and I felt absolutely exhausted afterwards. And in a way slightly let down because I'd built myself up to the fact that I was going to have this baby naturally, and I was going to go for limited pain relief - when in the end I ended up with erm, an emergency section.

She began to suspect that she might need a caesarean when ‘more and more people came to look at me’ and she over heard their discussions. The staff discussed her progress with her husband but she also felt that she had been involved in the decision:

I did, yes, I did. Erm, I felt that the care of the nurses was superb, absolutely superb. They were a really good team, because they communicated well, they were there, they asked you what you needed, how you felt.

But when asked how she felt when the decision was made to go to theatre, she was less positive:

Erm, (pause: 5 seconds), it’s a hard one, because part of me still feels disappointed in a way that she wasn’t born naturally, because I’d built myself up to that.

She went on to describe all the reasons why she should be grateful, for example, she had excellent care, a healthy baby and she was given lots of information. The anaesthetist was someone she knew and he was ‘being chatty and friendly and warm’ which she found comforting. She remembered how her husband was involved in theatre, kept informed throughout and how he held the baby first ‘which he thought was wonderful’. Sara was also desperate to hold her baby and thought it was ‘the most amazing experience’ when she put her to the breast for the first time.

She continued to feel well supported with breastfeeding during her hospital stay:

The initial latching on and the soreness, that was a, another pain barrier that I went through cracked that one, again somebody taught me exactly what to do, and how to do it [...] a very experienced midwife who, erm, she when, when my milk came in she showed me how to position the baby, how to make sure the baby was latched on.

Sara did not focus on her own physical recovery but wanted to discuss how she managed to breastfeed successfully. Despite supportive care on the ward, she was ‘so relieved to be home’:

So relieved to have my own toilet (laughs), my own bath, my own bed. I felt really great about that. And erm, to actually be with [baby] in your own comfortable surroundings where you didn’t feel that erm, you were infringing upon anybody else, that somebody might be in the loo and you needed it, you know, you could do everything at your own pace. And I was so, I felt psychologically so much better for being home.

Physically her recovery was uneventful, except for a wound infection, but emotionally she found being a new mother ‘a bit of a roller coaster’:

Just feeling a bit low at times. But when I did feel like that I wanted to get outside, go and stick her in the pram, and go and walk down to the field [...] and psychologically it made

me feel better I don't know whether it would have been different had it been darker on the days. I really don't know. But I did feel as though I needed to get out and about. And be with people.

With regard to Sara having more children, the story was difficult to unravel. She certainly reported that having an emergency caesarean had not put her off having more children, 'the bottom line is it's only a few days out of your life'. However, when she was asked if she was going to have another baby (on the follow up questionnaire a year earlier she had said they were currently 'trying for another baby') she spoke about how demanding her job was and how difficult it would be to arrange child care. She did however make it clear that she would like to experience a natural birth:

But it's just the fact that it's the natural process, and that's what you're designed to do, so erm, where possible, I would hope to go through that process. And for no other reason really. But, I, I wouldn't be a martyr to pain. I, I wouldn't be so naïve as to think, "I can do this without anything." I'd listen to exactly what they say (laughs) [...] But, saying that, where possible, I would like a natural birth.

Sara said that she had rarely talked about her birth experience but that the interview had helped her 'put certain ghosts to rest'. She went on to say:

I'm comfortable with what happened, and I'm sorry it went on for so long, and I know that it could be different next time. I hope it will be different next time. And, in a really strange sort of way, I would really like to have a natural birth, and to, to go through that process, I still would. That sounds really strange doesn't it? But I would. And I'd do that because I now know what you get, I now know the pleasure that you get, and, and erh, I don't regret it. I'd never say, 'oh, that's, that was the worst experience of my life' because, pain-wise it was, but in terms of everything else, it, it heavily outweighs the pain. And I'd do it again. I certainly would do it again.

4.2.6 Field notes

Sara was interviewed at her place of work in a private room with no interruptions. She had another appointment an hour later and so I had to end the interview abruptly after 54 minutes. She was very interested in the research and what I intended to do with it. Her sense of regret that she had not had a natural birth despite 30 hours of labour came across very strongly but it had not weakened her faith in birth as a natural process. There was a strong sense of self blame, that she had been naïve to think that she could have a normal birth, that she should have been more

prepared herself and then she could have coped better. I came away hoping that she was currently pregnant with a smaller baby.

4.3 Elizabeth

Elizabeth was chosen for the case study because she chose the response 'very unhappy with the way things went' when asked how she felt looking back, in the follow up questionnaire.

4.3.1 First antenatal questionnaire

Elizabeth was a twenty nine year old nurse when pregnant in 2000. She was white and her highest educational qualification was her nursing registration. She was married to a shop manager. This was her second pregnancy, having given birth two years previously to a son after a forceps birth. She was booked to have a hospital birth and was expecting to have most of her antenatal checks at the health centre under the care of a specific midwife. She did not feel she had been given a choice but was happy with this arrangement. However, at the end of the questionnaire she wrote:

I didn't feel that the consultant at the hospital with my first baby had genuine empathy or understanding following a traumatic forceps birth of a baby. I was told he was too big for me. I feel completely violated by the whole experience. With this pregnancy I have changed consultants and feel already more confident about the impending birth.

During her pregnancy, Elizabeth did not attend classes because following her previous experience she wanted to go into the birth completely 'open minded'. She also wrote:

I chose not to attend any classes as I feel very negative and would not want those feelings to come through to other people attending those classes.

When talking with health professionals she was 'always' able to discuss the things she wanted to with them fully. She considered writing a birth plan, but postnatally she said that she did not write anything down about her wishes for labour. She wanted 'very much' to move about during labour and choose the position in which she gave birth. She 'didn't mind' if she was cared for in labour by a midwife she had already met and did not have any expectations about this. She 'didn't mind' if she had a midwife with her at all times and did not have any expectations that this would happen. She 'very much' wanted to have one midwife who saw her through labour from start to finish but thought it unlikely to happen.

Elizabeth wanted and expected staff to ‘discuss things’ with her ‘before reaching their decision’ with regard to non-emergency decisions during her labour, but in an emergency situation expected them to ‘make the decisions’ but keep her informed. She would have ‘quite liked’ to have been in control of what doctors and midwives did to her during labour and thought that this would be the case. It was ‘very important’ to her that giving birth would be a fulfilling experience but expected that ‘it probably won’t be’.

Elizabeth was ‘very worried’ about the thought of pain in labour, she expected it to be ‘unbearably painful’ and wanted ‘the most pain-free labour’ that drugs could give her. She said antenatally that she ‘didn’t mind’ having an epidural or Pethidine in labour and ‘definitely’ wanted to use gas and air. She knew a lot about all forms of pain relief. She ‘preferred not to have’ drugs to speed up labour, have her waters broken or have an episiotomy and ‘would prefer to avoid’ a forceps or ventouse birth. Elizabeth knew ‘a great deal’ about what a caesarean section involved and did not expect to have one. She ‘would prefer’ an elective caesarean if she was told that she had a 50:50 chance of needing a caesarean.

4.3.2 Postnatal questionnaire

Thirteen days after her due date, Elizabeth gave birth to a baby boy who weighed eight pounds and ten ounces. He was born by emergency caesarean for fetal distress. She had a general anaesthetic for the caesarean and did not have close contact with him afterwards as he went to Special Care Baby Unit (SCBU) and was sedated because he started to have fits. Elizabeth felt that she had ‘no say at all’ about the decision to have a caesarean but felt that decision was the right one. She had an epidural for pain relief and was never left alone at a time when it worried her. She was not able to move around and change position as she had hoped. She made further comment about dealing with pain:

My husband said that I didn’t make any noise at all but inside my head I was screaming very loudly. Possibly I should have done it out loud – why I didn’t I don’t know.

During labour she felt, ‘frightened’, ‘detached’, ‘calm’, ‘out of control’ and ‘powerless’ and ‘helpless’. She had not met any of the midwives who looked after her before but did have one who saw her through from start to finish. She felt in control of what staff were doing to her ‘only some of the time’. They made the emergency decisions but kept her informed. Elizabeth described the staff as, ‘supportive’, ‘informative’, ‘humourous’, ‘sensitive’, ‘off-hand’ and ‘considerate’ feeling that she was always treated as an individual and with respect.

Six weeks after the birth Elizabeth was feeling ‘exhausted’ and ‘mildly depressed’. She felt the ‘best’ thing about the birth was that she wasn’t going to be pregnant for much longer. She wrote, ‘42 weeks is far too long – particularly when my previous birth was difficult and a largish baby eight pounds two ounces’. The ‘worst’ thing was ‘the pain before the epidural’. She was surprised by the fact that she ‘didn’t die’. She felt that the birth had not been a fulfilling experience ‘no it was terrible’ and gave it a satisfaction score of three out of ten. She wrote:

I do feel in a way that lots of things that happened have left me cheated of this wonderful experience (ok I knew it would hurt!) but it wasn’t how I thought it would be as forceps and a c/section mean that I never actually pushed either baby out – something I wanted to do. Also I never went into (strong) labour by myself – I needed the drip both times – I do wish I could have done it myself.

4.3.3 Follow up questionnaire

Elizabeth breastfed her son for ‘2 hours’ in hospital and stated that she had not wanted to breastfeed this baby. She stated that she did not have any difficulty forming a good relationship with her son. She had not had any further children and wrote ‘my family is complete’. Three years after the birth Elizabeth’s memories were ‘very clear as if it were yesterday’ and she thought about it ‘most days’. She was still pleased about her decision to have an epidural in labour as she had planned to have one if she needed a drip. She did wish she had had it earlier but ‘just couldn’t speak to ask’. She was ‘relieved, not worried at all, very calm. I just wanted it over’ when the decision was made to have a caesarean. Elizabeth described the staff in theatre as ‘quite relaxed’ but she was asleep for the birth. She described the staff as ‘supportive’, ‘informative’, ‘humorous’, ‘sensitive’, ‘warm’, ‘polite’ and ‘considerate’. Looking back she was ‘very unhappy’ with the way things went and wrote:

Not happy with anything the staff did. Following the c/section [baby] went to special care because he wasn’t breathing properly, then he fitted and had to be put to sleep for three days. We didn’t know if he was brain damaged or not. He came home on Phenytoin. He’s fine now but it was a very difficult time.

Elizabeth felt that her baby’s life had been in danger during the birth but not her own. She wished she had had an elective caesarean so that she could have been awake and felt that this experience made her ‘less keen’ to have another baby.

Reflecting on her postnatal care, she remembered being in a single room, and that a doctor came and sat down with her to talk about how the birth had gone. She was ‘occasionally’ asked if she needed help with baby care and ‘always’ felt she could ask for help if she needed it. She described

the ward as 'busy', 'safe', 'supportive', 'friendly', 'clean', 'relaxing' and 'boring' and she stayed in hospital for ten days, which she thought was 'about right'.

Elizabeth remembered being 'relieved' to leave hospital but 'was always watching him for signs of fitting'. She had support from her partner which she felt was generally not enough. She has not had any physical health problems since the birth but wrote 'certainly psychologically I don't think things have been brilliant'. Before the birth she had 'no particular feelings' about the way she looked but three years after the birth she was 'unhappy' with the way she looked 'stretch marks and c/section scar'. She had a low EPDS and moderate self-esteem. In response to questions about her own birth, she knew that she had been a 'normal birth' herself because her mother had described the details of her birth to Elizabeth before she had her baby. Elizabeth did not feel that it made any difference to how she felt about her own birth but she supported her sister throughout her labour and felt that she could empathise with what she was going through. When asked if she had any other important issues she wanted to raise about her Millennium birth she wrote:

I think that everybody's birth experiences are so different and personal to each individual. I'm not happy about either of my births. I felt both were awful and I still feel cheated because I didn't enjoy bringing my children into the world [...] I do feel that more should be done for women who have difficult births as it does stay with you forever.

4.3.4 Interview data

As with her questionnaire responses, Elizabeth often described her Millennium experience with reference to her previous forceps birth two years earlier. She began by remembering that she had been apprehensive about the birth throughout her pregnancy because of her previous birth experience:

I just felt like something was going to go wrong I don't know, because like he'd gone over, and I didn't even have any twinges or anything to - I just wanted it all done [...] I was just like a big beached whale sat on the settee not able to move. And, and that fortnight of just sitting and thinking, you know, "What's going to happen? What's going to happen?" Stupid really, I should have just got on with it and not sort of thought about it.

She was frustrated because no one took her fears seriously:

Everybody, every antenatal I, I, I mean, in fairness I, we moved, so I changed midwives. But they both still sort of said the same, "oh, don't worry, no two births are the same. You'll be absolutely fine." [...] And then everybody said, "oh no, you know, you'll be

fine, and it'll be a much better experience" and, and then you know, you, it's not is it? 'Cos it's, it all went wrong again.

Elizabeth spoke about how she went in to hospital be induced, had her waters broken but nothing happened so she 'ended up being with a [syntocinon] drip again', as she had had during her first labour. She had planned to have an epidural this time if she needed a drip:

I remember saying to the, the midwife, erm, "last time I had that I really didn't like it, I want an epidural." She said, "oh well, we'll only start it off very slowly" and I should have just said, "no, I want an epidural". I should have just said, but I thought, "oh, they're only going to do it slowly, you know" [...] And I let it go so far that I couldn't even come off me gas and air to tell them I want an epidural [...] but I'd let it go so far, because I believed them, that they were only going to start it off slowly.

She eventually managed to insist on an epidural which she thought was 'absolutely fantastic, wonderful'. The baby's heart rate started to drop and she went on to have fetal blood sampling which showed that the baby needed to be born immediately. She had no involvement in the decision, but was very relieved:

[husband] was taking me nail varnish off me toes, and somebody was getting me to drink this, and the, and she says, "you're not nervous at all are you?" and I was just relieved. Just that and I am, I can just sort of, you know, if you go for a filling or anything, I can just switch off and let things be done to me, and it has to be done, and that's it. I just did switch off, and I was just so relieved that that's what they were going to do.

Following the birth her pain was excruciating:

I remember waking up thinking I had literally been cut in half. The pain was just awful. I remember saying, "it's hurting, it's hurting, it's hurting," [...] And then once all the, I had erh, Morphine pump thing, whatever it was, once all that sort of kicked in it wasn't too bad.

Her son had gone to SCBU and later started to have fits. He was kept on SCBU for four days during which time Elizabeth spent most of her time on the ward, keeping herself to herself:

I didn't like accepting the situation that I was in. So if I wasn't sat next to him in an incubator, I could come away from it, and it wasn't really happening, do you know what I mean? If I sat there for any length of time I used to just get really upset [...] Because if when you're looking at your baby in that thing, it's, it's real isn't it? You know, it's,

you're sort of thinking, "I can't believe this is happening, that's my baby in there." But if you're not, I, I found it easier to come away

She felt that the staff on the postnatal ward were 'nice, but I don't feel that any of them were overly nice'. Being in a side room meant that she did not see much of the staff. The fact that her baby was ill following the birth did not just impact on Elizabeth and her husband:

I know me mum said she found it very difficult, because you have a preconceived idea of going to visit your daughter in hospital with the baby in the side, you know, and it's, and that baby wasn't there. Down in Special Care. So, I just, the whole, it's I suppose, it's the ideas of what people think it's going to be like. But you can't, it's only human nature isn't it, to, to dream and think what things are going to be like?

Her husband's family did not talk about her new son. They did not know how to handle the situation and the possibility that their new grandson might have been starved of oxygen during the birth. This was distressing for [husband's] mum and dad, very angry. You know, I felt, I did feel like saying to him [father in law], like I said before, "he's not just the runt of the litter you know, and we'll just not take him home, we'll just have another one. You know, we'll, you know" That's what, is that what, that's the impression that I got, because they, you know, they've got other grandchildren, and this one's not perfect, so we won't bother with it do you know what I mean?

Her son had no lasting damage from his fits and was given the all clear when he was one year old. However, the trauma of those days and weeks after the birth has had a lasting impact on the family:

If you're out on a family day out, and you'll see a child in like a special pushchair, 'cos they're you know, they're brain damaged or whatever, [husband] will sort of say, that could have been us.

She felt that women who have traumatic births should have the chance to talk through their experience with someone who is 'unemotionally' involved and then perhaps difficult feelings could be 'nipped in the bud'. She wondered if other mothers felt the same as her:

You just go along with the flow, and, and then you're thinking, "is everybody thinking the same as I am, or is everybody else absolutely ecstatic, and madly in love with their babies? Or are, you just don't know do you? 'Cos nobody ever talks about it, you, everybody's just, all in the same boat I suppose, but. And everybody could have been looking at everybody thinking, "Oh god, I don't like, like my baby" you know.

She talked about the expectation that as a new mother you are just be expected to ‘come home and carry on as normal [...] be a good wife, keeping the house tidy’ and that ‘it’s such a fast roller coaster that nobody stops to sort of thinks, “well are you [ok]?”’ She remembered that at her postnatal visits to the health visitor she answered the EPDS questionnaire with the responses she felt she should give rather than how she actually felt. She went on to say:

Everybody’s there with their pristine babies, and you’re taking them every week to get weighed, and they’re asking “how are you doing?” and you think, “oh, I’m doing alright” but there’s probably a lot of women who say they are and they’re not really. I think there’s so much expectations on you to be able to cope.

4.3.5 Field notes

The interview took place in Elizabeth’s house, which had a sitting room and kitchen downstairs. Her elder son was at school. She sat on the sofa with her younger son (ger Millennium baby). They sat together but not touching. When he interrupted the interview, she responded but was very quick to get back on track and tell her story. He played quietly with a toy for sometime and then fell asleep.

During the interview Elizabeth often looked to me for clarification and confirmation about what had happened to her. Her responses were frequently punctuated with questions such as, ‘do you know what I mean?’ Her experience of birth in 2000 was always compared to her first birth experience. Both birth experiences were extremely fresh in her mind and she became tearful on a number of occasions but insisted on continuing with the interview. The interview lasted 105 minutes and only stopped because she had to pick up her elder son from school.

This interview made me think about my practice as a midwife, the way that midwives often dismiss women’s concerns about their next birth with comments such as, ‘second births are usually much easier’ and so on. She highlighted many important issues that I had not previously considered, including how those few days on SCBU and the uncertainty about her baby’s neurological status had had far reaching and lasting effects not just for the nuclear but for the extended family.

She brought home to me how distressed women can be and still continue to fulfil their roles without disclosing their distress to a health professional, despite regular contact with them. This interview has changed me as a midwife.

4.4 Summary of Chapter

The three women I have described share a common experience: emergency caesarean birth. However, they each approached the birth with a unique complement of expectations, values and aspirations. Each woman evaluated their experience differently when she looked back after three years. The questionnaire data provided the opportunity to look for patterns and associations between variables. The questionnaires also provided some qualitative data, enabling women to make comments on issues of particular importance to them. The interviews allowed me to pursue the questionnaire data, to seek clarification and observe the emotions behind the words.

The next chapter draws on the quantitative data from the whole sample to investigate what contributes to the way women feel when they look back on their birth experience three years later.

CHAPTER 5: Looking back on the birth experience

5.1 Introduction

This chapter is about how women feel looking back on their birth experience, three years after the event. It begins by outlining the background to why this issue was explored and goes on to describe the development of a logistic regression model to identify predictors of unhappiness with the experience. In order to conduct this work three separate models were developed (antenatal, intrapartum and postnatal) and then combined to create the ‘final’ model. The chapter concludes with the development of a further model focusing on women who had an emergency caesarean birth - called the ‘emergency caesarean model’ - to discover the predictors of unhappiness with the birth experience specific to this group.

5.2 Looking back on the birth

5.2.1 Why look back?

The purpose of this analysis is to develop an understanding of why some women feel unhappy with the way things went during the birth, three years later. Satisfaction following childbirth has been widely investigated (for example; Dannenbring, Stevens and House 1997; Hundley, Milne, Glazener and Mollison 1997; Dickinson, Paech, McDonald and Evans 2003; Goodman, Mackey, and Tavakoli 2004). However, most studies have focused on how women feel either immediately after birth (for example; Hundley, Milne, Glazener and Mollison 1997; Dickinson, Paech, McDonald and Evans 2003) or a few weeks later (for example; Lomas, Dore, Enkin and Mitchell 1987). Few have explored how women feel in the long term (for example; Simkin 1992) and even fewer with the ability to examine how antenatal parameters influenced subsequent feelings (for example; Saisto, Salmela-Aro, Nurmi and Halmesmaki 2001).

How women feel when they look back on their experience of birth has the potential for far reaching consequences. Women who are happy with the way things went may be less likely to approach a subsequent pregnancy and labour with fear and dread. They may have more confidence in the staff and the maternity care system knowing that they can go through the process and feel positive about the experience afterwards.

The women who remain unhappy with the way things went years after the birth are a matter of concern. Simkin (1992) described how vivid and consistent women’s birth memories are.

The birth story is told myriad times over the course of a woman's life. If this is (or has become) a negative account, this story will touch the lives of many other women with the potential to invoke worry, which for some could develop into fear. The woman could herself develop secondary fear of childbirth. Whilst it might be argued that fear of childbirth is a rational response which most women overcome (Bewley and Cockburn 2002), for others it becomes so intense that they either decide not to embark on motherhood or take measures to reduce their perceived danger and request a caesarean birth (Hofberg and Brockington 2000). It has also been suggested that fear of childbirth during pregnancy can increase the likelihood of emergency caesarean birth (Ryding, Wilma, Wilma and Rydhstrom 1998) although this finding was not demonstrated in a UK sample (Johnson and Slade 2002). Antenatal fear has been associated with an increased incidence of postnatal depression (Salmela-Aro, Nurmi and Halmesmaki 2001).

It is likely that some women's perceptions of their birth experience will be related to their personality, and irrespective of events, will give either a positive or negative appraisal of the birth. For others, however, their perceptions will relate to situations that could potentially have been managed differently resulting in a more positive appraisal by the woman. Identification of such aspects of the birth experience creates the potential for staff to use this evidence to enhance their care. It is with this ultimate aim in mind that the following question was developed and included in the follow-up questionnaire.

5.2.2 Looking back in 2003

One of the key questions asked in the follow-up questionnaire in 2003 was, 'How do you feel when you look back on your experience of birth in 2000?' There were five response options; 'I'm very happy with the way things went', 'I'm quite happy with the way things went', 'I have no particular feelings', 'I am quite unhappy with the way things went' and 'I am very unhappy with the way things went'. This variable 'looking back' is the main focus (dependent variable) for this chapter.

Initial analysis showed that women who had an emergency caesarean birth were most likely to report feeling 'very unhappy' or 'quite unhappy' compared with women who had other modes of birth (table 5.1). It was not known, however, whether feeling unhappy was specifically related to having had surgical intervention or to what extent covariates contributed to feeling happy or unhappy. It was hypothesised that how women felt looking back would be related to a combination of events leading up to and following the birth rather than the mode of birth itself. Before this issue could be investigated further, it was important to consider the form that the dependent variable (looking back) would take.

Table 5.1: Feelings about the birth experience three years later 'looking back' by mode of birth

Looking Back	Mode of birth				
	Elective caesarean	Emergency caesarean	Instrumental birth	Spontaneous birth	Total
Very happy	26 (46%)	21 (25%)	15 (17%)	285 (57%)	347 (47%)
Quite happy	23 (40%)	35 (41%)	47 (53%)	174 (35%)	279 (38%)
No particular feelings	2 (4%)	2 (2%)	9 (10%)	14 (3%)	27 (4%)
Quite unhappy	3 (5%)	15 (18%)	10 (11%)	24 (5%)	52 (7%)
Very unhappy	3 (5%)	12 (14%)	7 (8%)	5 (1%)	27 (4%)
Total	57 (100%)	85 (100%)	88 (100%)	502 (100%)	732 (100%)

$P < 0.001$, $\chi^2 = 113.94$, $df = 12$

5.3 Preparing for analysis

5.3.1 Categorising the dependent variable

Various ways of categorising 'looking back' were considered and explored through statistical analysis. Initially, binary logistic regression was undertaken comparing those women who were 'very unhappy' with 'everyone else', however, small numbers in the 'very unhappy' group led to very wide confidence intervals, so this way of grouping respondents was not pursued. From a clinical point of view, it would be most useful to be able to identify what factors predicted who would be 'unhappy' (both very or quite) as these women warrant special attention. Hence it was considered appropriate to group 'very unhappy' and 'quite unhappy' together. However, a decision needed to be made regarding what to do with the small group of women who responded 'no particular feelings' ($n=27$). Should they be grouped with the happy or unhappy women or should they be excluded from this analysis?

Cross tabulations of key covariates revealed that the women who responded 'no particular feelings' did not consistently group with either the happy or unhappy women on a wide range of variables; hence, it was decided to exclude the women who had 'no particular feelings' from this analysis. Women who were 'very happy' or 'quite happy' were grouped together and coded 'happy' and women who were 'very unhappy' or 'quite unhappy' were grouped together and coded 'unhappy'. This binary variable 'looking back in two categories' will be referred to as 'looking back'.

5.3.2 Categorising the main predictor variable

As was seen from univariate analysis of mode of birth and 'looking back' (table 5.1), women who had an emergency caesarean birth were most likely to be unhappy, followed by those women who had an instrumental birth. To explore the strength of the impact of mode of birth on how women felt looking back on their birth experience, binary (happy versus unhappy) logistic regression was undertaken with spontaneous vaginal birth as the reference group (table 5.2).

Table 5.2: Binary logistic regression analysis: Feeling unhappy about the birth experience three years later and mode of birth

Mode of birth	n	Significance	Odds ratio	95% Confidence interval	
			Exp (B)	Lower	Upper
Elective caesarean	55	0.16	1.94	0.77	4.90
Emergency caesarean	83	0.000	7.63	4.22	13.81
Instrumental birth	79	0.000	4.34	2.26	8.35
Spontaneous birth	488	-	-	Reference group	

It can be seen that women who had an elective caesarean birth were almost twice as likely to be unhappy looking back compared with women who had a spontaneous birth, but this was not statistically significant. Having an emergency caesarean birth was associated with a 7.6 fold increase in the odds of being unhappy and women who had an instrumental birth had a 4.3 fold increase in the odds of being unhappy compared to women who had a spontaneous birth. As there were differences between all the modes of birth that would be masked if they were grouped together, it was not appropriate to compare emergency caesarean with other modes of birth by creating a binary variable.

Whether or not a woman has had a baby before is likely to have an influence on her perception of her birth experience. Univariate analysis was therefore undertaken comparing mode of birth and 'looking back' by parity, however, the numbers of women in the individual categories became small, for example, there was only one primiparous woman who felt unhappy following an elective caesarean. Hence, models were not constructed separately for primiparous and multiparous women but parity was included as a predictor variable in each of the models developed. Binary logistic regression revealed that being a primiparous woman was associated with a 2.37 increase in the odds of being unhappy compared with being multiparous ($p < 0.001$, $CI = 1.47-3.81$).

5.3.3 Concepts related to women's perception of the birth experience

There are many variables that could affect women's perception of their birth experience. Having such a large data set, comprising over 800 variables, it was necessary to be highly selective regarding which to include in the model. To assist me in this process, I considered the concepts that I thought could potentially influence how women might feel when they look back on their birth experience. These concepts were derived from my professional practice, the literature, the interviews and previous analysis of the original data set and were grouped under pre-pregnancy and antenatal, labour and birth, and postnatal (figure 4.1). The concepts fed into each other and all could potentially relate to how the woman felt about her birth experience.

Many authors have endeavoured to identify those factors that predict women's satisfaction with their birth experience. Brown and Lumley (1994) in their survey of 790 Australian women found that dissatisfaction was related to: lack of involvement in decision-making; insufficient information; obstetric intervention and a perception that their caregivers were unhelpful. The women were surveyed eight months after the birth and the question they were asked to determine satisfaction was, '*overall do you feel your labour and delivery were*': (followed by three response options): 'managed as you liked'; 'managed as you liked in some ways but not in others'; 'not managed as you liked'. This question, however, assumes that the women had particular preferences for care management. It also focuses on 'management' and thus somewhat limits how satisfaction can be interpreted.

The question used in the follow-up questionnaire for the current study was very broad and sought to detect happiness or otherwise with 'the way things went' rather than focusing on how care was managed. Identification of what factors related to this measure of satisfaction was then reliant on ensuring that potentially related variables were included in the regression models. This issue was addressed by Green, Coupland and Kitzinger (1998), in their prospective study of women's expectations and experiences of childbirth. They asked women to give their birth experience a score out of ten whereby 'ten-out-of-ten would mean an absolutely wonderful experience that could not have been better, nought-out-of-ten would mean a thoroughly unsatisfactory experience with nothing good to be said for it'. This question was repeated in 'Greater Expectations' (see PNQ, page 36, QF13). They acknowledge that this general question could mask specific points of dissatisfaction due to the immediate sense of relief and joy at the birth of a healthy baby. Hence, they used additional questioning to explore other dimensions of the experience, for example 'How do you feel now about having had, or not having had, an epidural? Other questions were related to options for pain relief, interventions and attitudes about treatment by the staff. These concepts were all considered as being potentially related to 'looking back'.

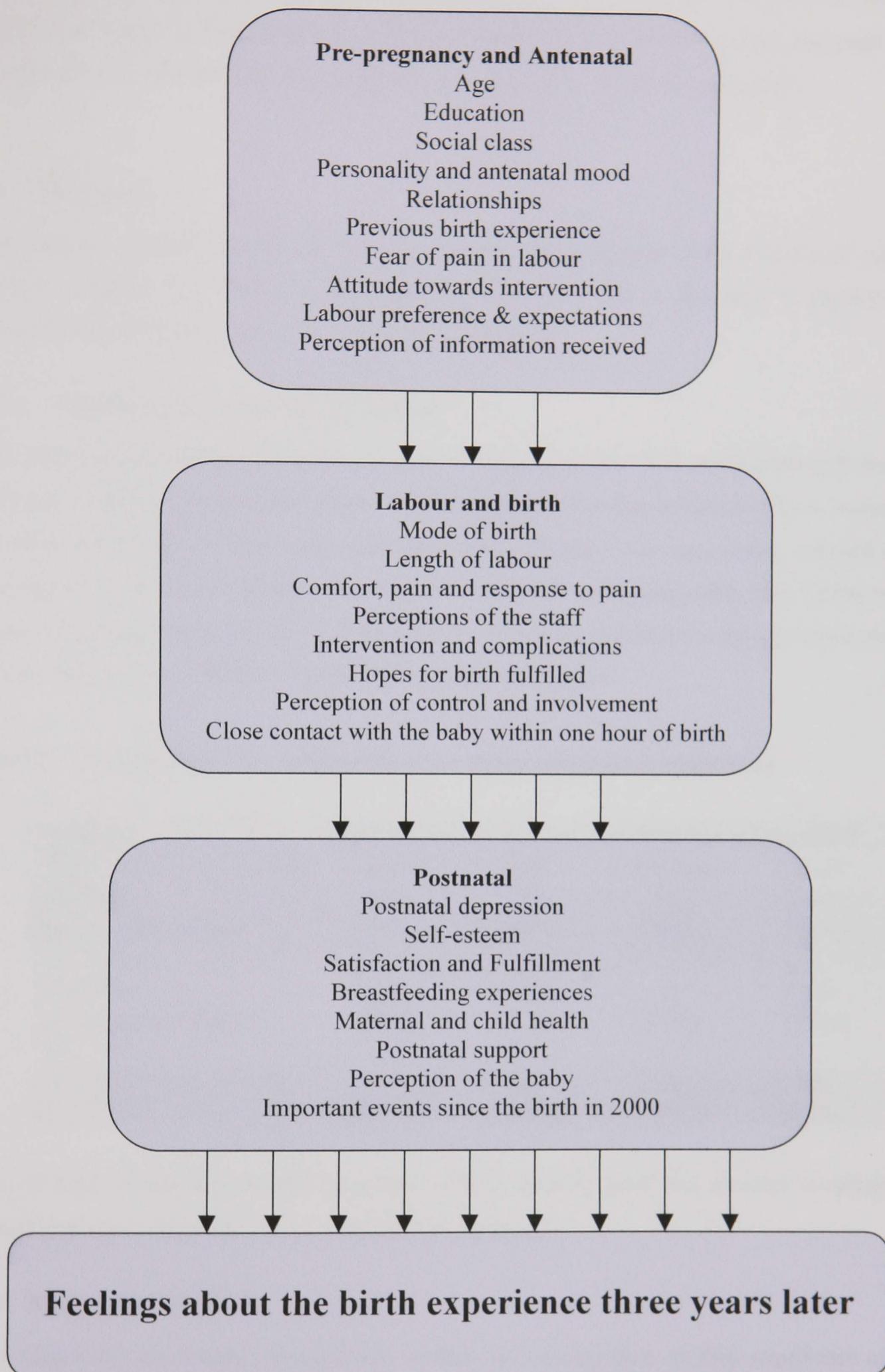


Figure 5.1: Summary of main concepts with the potential to influence the long-term perception of the birth experience

Another important consideration is the extent to which expectations for the birth were met. The availability of antenatal data made it possible to consider circumstances in which particular hopes and expectations were fulfilled and incorporate them in the model where appropriate.

5.3.4 Measures

I identified the variables within the data set that provided measures of the theoretical concepts identified in figure 5.1. These variables are described in detail in Appendix 9 together with information regarding how they were coded for the analysis.

5.3.4.1 Satisfaction at six weeks postnatal

In the six-week postnatal questionnaire, women were asked to rate their satisfaction with the birth experience by giving it a score out of ten. This variable was a robust predictor of how women felt when they looked back on their birth experience; 99% of women who were highly satisfied (score of 9 or more) six weeks postnatally felt positive about it three years later (table 5.3). Of the women who gave their experience a score of five or less in 2000, 60% had become more positive over the years; women were less likely to change from positive to negative.

Table 5.3: 'Looking back' by satisfaction at six weeks postnatal (categorised)

Looking Back	Satisfaction score out of 10 (6 weeks postnatally)			
	5 or less	6-8	9 or more	Total
Positive (very / quite happy)	69 (60%)	277 (91%)	271 (99%)	617 (86%)
Negative (very / quite unhappy)	46 (40%)	27 (9%)	3 (1%)	76 (11%)
	115 (100%)	304 (100%)	274 (100%)	693 (100%)

Due to its high correlation with the dependent variable 'looking back' this measure of satisfaction obtained at 6 weeks postnatal was not included in the model.

5.3.5 Regression analysis

To investigate the relationship between how women felt looking back on their experience of birth and other variables, multivariable regression analysis was undertaken. This was achieved through the development of a regression model, succinctly described by Bowers, House and Owens (2006) as 'a mathematical equation which captures the nature and direction of a causal relationship between one variable and one or more other variables' (page 165). There is a range of regression

models that can be used depending on the characteristics of the variables under scrutiny. *Binary logistic regression* is the model of choice in circumstances where the outcome variable is dichotomous, as is the case with 'looking back', and the predictor variables are a mixture of continuous and categorical, therefore this was the type of modeling used.

Developing a robust model involves careful consideration of the data to maximise its accuracy. There are a number of factors that could jeopardise this outcome:

1. the number of cases within the final model
2. the number of variables in the model
3. the potential correlation of variables with each other

1. The first two factors are closely related to each other. The model will only include cases for which there are complete data for all the variables included. This means that if there is a variable for which the response rate was particularly low, it may be necessary to exclude it from the model in order to maintain the highest number of cases. Even if the variable is highly predictive, a model with few cases would not be robust. The number of variables the model contains also influences the number of cases in the model. As more variables are added to the model, there is an increasing likelihood that further cases are excluded due to variations in missing data for individual women.

2. When there are too many independent variables per number of cases, logistic regression produces very large standard errors (Tabachnick and Fidell 2001). The potential for this can be minimised by reducing the number of categories within variables and omitting those variables which are clinically unimportant; these measures were employed. Bowers, House and Owens (2006) suggest a minimum of 20 cases per independent variable in the model and this condition was always met.

3. When variables are highly correlated they can mask the effect of each other. Careful consideration was given to excluding variables which were potentially measuring a very similar phenomenon. Potential collinearity was observed for by examination of the parameter estimates as these are inflated when there is very high correlation between predictor variables (Tabachnick and Fidell 2001). Occasionally, when it was felt that the essence of similar variables should be captured, they were combined to create a new variable.

5.3.6 Developing the model

As there were numerous predictor (independent or explanatory) variables which had been identified as having a potential relationship with the outcome (or dependent) variable 'looking

back', development of the model was undertaken in three stages. Firstly an antenatal model was developed, followed by a labour then a postnatal model. To create each of these models, the following process was employed:

- theoretical concepts were identified which could potentially influence how a woman felt about her birth experience
- measures which related to the concepts were identified from the questionnaires received by women
- univariate analyses using chi squared and multivariable analyses using logistic regression were undertaken using the measures identified (predictor variables) and the outcome variable 'looking back'. An odds ratio of greater than 1 indicates that the variable increases the likelihood of a woman feeling unhappy looking back: a value less than 1 indicates that the event is associated with a decreased likelihood of feeling unhappy
- significant predictor variables were identified
- a regression model was constructed, starting with the most important variable from the univariate regression (that which was clinically and statistically significant) and then adding the next, noting whether the odds ratio of the first changed substantially. If the first did not change substantially and the second was insignificant, the second was not included in the model
- This process was repeated for all significant variables until a multivariable model was created for antenatal variables (table 5.5), intrapartum variables (table 5.7) and postnatal variables (table 5.9)
- All three models were developed with the inclusion of 'mode of birth' and 'parity' as both of these factors were strong predictors of the outcome and were also related to antenatal, birth and postnatal attitudes and experiences. The aim was to assess the magnitude of the effect of antenatal, birth and postnatal factors independent of the mode of birth or whether or not a woman was having her first, or a subsequent baby

Finally, all three models were combined to create a final model of variables that might predict unhappiness with the birth experience three years after the event.

SPSS has the option to undertake stepwise regression, whereby the computer starts by including the most statistically significant variable and then the next, and so on, with one click of a button. This process, however, may not include variables which, although not significant in themselves could be affecting the relationship of other variables to the outcome, such as parity. Also, the longhand process enables the researcher to discern important relationships between the variables, highlighted in the research literature, which the stepwise process would not highlight.

5.4 Developing the antenatal model

Table 5.4 presents the variables that were considered for inclusion in the antenatal model and their respective unadjusted odds ratios (OR) by 'looking back'.

Table 5.4: Unadjusted odds ratios for 'looking back' by pre-pregnancy / antenatal variables

	n	95% CI for OR			
		Sig	OR	Lower	Upper
Age, education, employment		Not significant			
Parity					
Multiparous (ref)	427	1.00			
Primiparous	278	0.000	2.37	1.47	3.81
Unassisted vaginal birth before 2000		Not significant			
Mood during pregnancy					
Reasonably cheerful (ref)	299	1.00			
Depressed, low or mood swings	98	0.002	2.83	1.45	5.54
Worried about labour pain					
A bit or not at all (ref)	542	1.00			
Very worried	120	0.01	2.41	1.41	4.01
Information received antenatally					
Right amount (ref)	559	1.00			
Too much or too little	175	0.000	3.13	1.93	5.09
Inaccurate or incomplete information					
No (ref)	606	1.00			
Yes	54	0.002	3.10	1.53	6.30
Confusing or contradictory information					
No (ref)	585	1.00			
Yes	79	0.005	2.47	1.31	4.66
Expected birth to be fulfilling					
Yes (sure & probably will be) (ref)	448	1.00			
No expectations (n/s)	165	0.11	1.57	0.91	2.70
No (sure & probably won't be)	43	0.02	2.56	1.15	5.70
Important not to lose control of behaviour		Not significant			
Expect not to lose control of behaviour		Not significant			
Want or expect control of staff		Not significant			
Who should make non-emergency decisions		Not significant			
Who expect make non-emergency decisions		Not significant			
Want to be able to move around in labour					
Quite like, don't mind or no (ref)	277	1.00			
Want this very much	379	0.028	1.80	1.07	3.05
Expect to be able to move around in labour		Not significant			
Want 1 midwife throughout labour	210	0.001	2.32	1.43	3.77
Expect 1 midwife throughout labour		Not significant			
Attitude to intervention		Not significant			
Ideal labour to be pain-free or otherwise		Not significant			
Preference for birth position		Not significant			

The wording of the questions has been shortened in the tables: see Appendix 9 for the precise wording of questions. The antenatal model was created by including the significant variables in binary logistic regression and looking at the adjusted odds ratios for these variables, as outlined previously.

There were three variables which related to antenatal information, with the potential for high correlation, however, systematic omission and replacement of each revealed that receiving the 'right amount' of information was the most significant variable for inclusion. Including 'mood during pregnancy' in the model reduced the number of cases by $n=273$ and it was therefore excluded on that basis. Further methodical removal and inclusion of remaining variables gave rise to a refined model (table 5.5). Use of a bold typeface denotes significance in model tables.

Table 5.5: Antenatal model – binary logistic regression with 'looking back' as the dependent variable (n=653)

	Sig	OR	95% CI for OR	
			Lower	Upper
Mode of birth (spontaneous vaginal birth = reference)				
Elective caesarean (n/s)	0.17	2.09	0.73	5.93
Emergency caesarean	0.000	8.23	4.17	16.25
Instrumental birth	0.000	4.68	2.25	9.74
Multiparity	0.72	0.90	0.50	1.61
Being very worried about labour pain	0.035	1.87	1.04	3.34
Wanting one midwife throughout 'very much'	0.004	2.20	1.29	3.76
Not given right amount of information antenatally	0.000	2.75	1.59	4.78

5.5 Developing the labour and birth model

Table 5.6 presents the variables that were considered for inclusion in the labour model and their respective unadjusted odds ratios. It would not have been appropriate to add all the significant labour variables to the model, as this would reduce its predictive power, as explained above. Pragmatic decisions were made regarding which variables would not be included in the model. For example, the variable 'getting what you wanted after the birth' was excluded because only 51% of women stated that they had any preferences. The variables 'treated with respect' and 'treated as an individual' were highly correlated ($r=0.78$, $p<0.001$). Therefore these variables were combined to create a new variable with the categories 'always treated both with respect and as an individual' and 'not always treated with respect and as an individual'. It was categorised in this way rather than combining 'always' and 'by most' because it was felt that even if one person was disrespectful or ignored a woman's individuality that this could have the potential to adversely

affect her perception of her experience. This variable was entered in the model and remained a significant predictor.

Table 5.6: Unadjusted odds ratios for 'looking back' by labour and birth variables

	n	95% CI for OR			
		Sig	OR	Lower	Upper
Induced labour	175	0.000	3.48	2.16	5.63
Epidural for pain relief	221	0.000	3.11	1.88	5.16
Labour accelerated with an iv infusion	166	0.000	2.77	1.67	4.58
Length of labour (in hours)	594	0.000	1.08	1.05	1.12
Pain not as expected	161	0.000	3.90	2.34	6.49
Not satisfied with response to pain in labour	187	0.000	5.42	3.21	9.14
Pain score					
Low pain (5 or less) (reference)	97	1.000			
Medium pain (6-8) (n/s)	323	0.342	1.55	0.63	3.85
High pain (9 or more)	200	0.022	2.89	1.16	7.16
Did you lose control of behaviour in labour					
No, not at all (reference)	380	1.000			
Yes, some of the time	238	0.001	2.48	1.47	4.19
Yes, most of the time	16	0.002	5.94	1.93	18.34
Did you feel in control during contractions					
Yes, all or most of the time (reference)	332	1.000			
Yes, some of the time	242	0.002	2.55	1.43	4.55
No, not at all	59	0.000	5.0	2.79	12.05
Did you make much noise during labour					
Not significant					
Were you able to get into comfy position					
Yes, some or all of the time (reference)	498	1.000			
No, hardly ever	129	0.000	4.11	2.44	6.92
Were you able to move and change position					
Yes, most or all of the time (reference)	253	1.000			
Some of the time or No, not at all	376	0.000	3.74	1.97	7.11
How were non-emergency decisions made					
I was in control (reference)	146	1.000			
Staff discussed or just made them	462	0.023	2.32	1.12	4.78
Did you feel in control of what staff did to you					
Always (reference)	257	1.000			
Not always	379	0.000	8.82	3.76	20.67
Were you left alone when it worried you					
No (reference)	536	1.000			
Yes	97	0.000	3.34	1.93	5.78
Treated as an individual during labour					
Yes always (reference)	478	1.000			
(by most, by a few, not at all)	221	0.000	5.86	3.53	9.72
Treated with respect during labour					
Yes always (reference)	499	1.000			
(by most, by a few, not at all)	202	0.000	4.16	2.57	6.74

Table 5.6: Unadjusted odds ratios for 'looking back' by labour and birth variables (continued)

	n	95% CI for OR			
		sig	OR	Lower	Upper
Women felt that her life had been in danger	42	0.000	5.83	2.97	11.45
Women felt her baby's life been in danger	148	0.000	4.89	3.00	7.96
Not having one midwife throughout labour	226	0.000	3.11	1.88	5.14
Wanting and getting one midwife throughout					
Wanted and got (reference)	313	1.000			
Wanted and did not get	165	0.000	3.10	1.78	5.39
Neutral and got, Neutral and did not get		Not significant			
Close contact with baby in first hour after birth					
Yes (reference)	629	1.000			
No	68	0.000	5.93	3.35	10.50
Did you get what you wanted re epidural					
Pro & got (reference)	90	1.000			
Anti & got	87	0.017	2.71	1.20	6.12
Neutral & got	33	0.033	3.00	1.09	8.23
Pro & didn't get	43	0.751	0.82	0.24	2.78
Anti & didn't get	304	0.29	0.66	0.30	1.43
Neutral & didn't get	45	0.11	0.18	0.02	1.47
Chosen birth companion present during labour		Not significant			
Expectations re non-emergency decisions					
Got what expected (reference)	209	1.000			
Had less involvement than expected	240	0.004	2.38	1.33	4.27
Had more involvement than expected	129	0.18	0.52	0.20	1.34
Get what you wanted after the birth					
Yes (reference)	396	1.000			
No or partially	61	0.000	9.915	4.68	17.90
Staff adjectives (positive)					
Supportive – no	124	0.000	7.82	4.73	12.92
Informative – no	323	0.004	2.04	1.26	3.31
Humorous, sensitive, polite – no		Not significant			
Warm – no	290	0.000	3.06	1.87	5.02
Considerate - no	198	0.000	2.60	1.61	4.20
Staff adjectives (negative)					
Rushed – yes	128	0.000	4.08	2.48	6.73
Unhelpful – yes	53	0.000	10.04	5.47	18.44
Rude – yes	40	0.000	8.21	4.17	16.16
Off-hand – yes	80	0.000	4.50	2.59	7.83
Bossy – yes	96	0.004	2.29	1.30	4.04
Insensitive – yes	84	0.000	8.24	4.84	14.03
Inconsiderate – yes	44	0.000	7.70	4.01	14.81
Condescending - yes	62	0.000	4.35	2.38	7.95

The variables 'induction of labour' and 'acceleration' were significantly correlated ($r=0.42$, $p=0.01$); 27% of women were induced and 57% of these stated that they also had labour accelerated. It would not have been appropriate to include them both in the labour model, therefore they were each put in the model independently to see which contributed most. Neither variable was significant within the model which obviated the need to develop a combined variable.

Inclusion of the 'length of labour' variable was carefully considered. Although 93% of eligible women answered this question, 21% of the women who had emergency caesareans did not and including it in the model would reduce the number of cases by 39. Many authors (for example; Waldenstrom, Hildingsson, Rubertsson and Radestad 2004) have found an association between prolonged labour and a negative birth experience and it would be important to grasp the opportunity to explore such an association within this data set. As there was a wide range of responses from 0 to 122 hours, a new variable was created for potential use in the model that excluded outliers (length of labour over 80 hours, $n=5$). The labour model was developed both with and without inclusion of the variable and its inclusion did not substantially change the nature of the model (that is, the ranking of the odds ratios or which variables were significant). Although the odds ratio appeared small in comparison with some of the other variables, it did provide insight into how each additional hour of labour increased the likelihood of a woman feeling unhappy with her experience. Hence, the labour model included the continuous variable 'length of labour'.

Table 5.7: Labour and birth model – binary logistic regression with looking back as the dependent variable (n=552) *elective caesarean missing as they did not experience labour

	Sig	OR	95% CI for OR	
			Lower	Upper
Mode of birth*(spontaneous vaginal birth =reference)				
Emergency caesarean	0.005	4.66	1.57	13.80
Instrumental birth	0.006	3.87	1.47	10.20
Multiparity	0.38	1.51	0.61	3.76
Labour pain not at all as expected	0.001	4.06	1.80	9.15
Not always treated with respect & individual	0.03	2.52	1.09	5.83
Not having close contact with baby within 1hr	0.002	4.49	1.72	11.69
Not satisfied way she dealt with labour pain	0.005	2.99	1.38	6.45
Being left alone in labour when it worried her	0.008	3.25	1.36	7.76
Not feeling staff were supportive during birth	0.000	4.91	2.21	10.90
Feeling the staff were insensitive during birth	0.03	2.61	1.08	6.29
Felt baby's life had been in danger	0.02	2.57	1.16	5.71
Length of labour (hours)	0.02	1.08	1.01	1.11

Before adding the staff adjectives to the model, binary logistic regression was undertaken on them collectively including parity and mode of birth. Following creation of this mini-model, only four staff adjectives remained significant: 'rushed'; 'not supportive'; 'not informative' and 'insensitive' and these were then added to the labour model; however, only 'not supportive' and 'insensitive' remained predictive of unhappiness with the birth experience looking back. Table 5.7 (previous page) presents the final labour and birth model, with significant predictors in bold.

5.6 Developing the postnatal model

Table 5.8 presents the variables that were considered for inclusion in the labour model and their respective unadjusted odds ratios.

Table 5.8: Unadjusted odds ratios for 'looking back' by postnatal variables

	n	95% CI for OR			
		Sig	OR	Lower	Upper
Rosenberg self-esteem scale (2003)		Not significant			
Edinburgh postnatal depression scale (2003)		Not significant			
Edinburgh postnatal depression scale (2000)	729	0.008	1.01	1.02	1.12
Birth satisfaction (score out of 10) (2000)					
9 or more (reference)	274	1.000			
6-8	304	0.000	8.80	2.64	29.36
5 or less	115	0.000	60.21	18.18	199.39
Birth not fulfilling (2000)	181	0.000	8.00	4.79	13.37
Major maternal health problems (2003)	63	0.001	2.81	1.49	5.30
Baby had problems at birth (2000)	117	0.000	2.88	1.72	4.85
Child health or behaviour problems (2003)					
No, not really (reference)	554	1.000			
Yes, in the past but not now	70	0.006	2.52	1.31	4.85
Yes, currently (3 years)	73	0.009	2.39	1.25	4.59
Anyone sit and talk about the birth (2003)		Not significant			
Child more difficult than other children (2003)		Not significant			
Partner and help with child care (2003)		Not significant			
Did not feel could ask for help on ward (2003)	122	0.000	3.91	2.36	6.47
Ward adjectives (positive) (2003)					
Homely, relaxing		Not significant			
orderly	167	0.017	2.24	1.16	4.35
calm	195	0.002	2.83	1.46	5.47
safe	278	0.000	3.80	2.09	6.92
supportive	211	0.04	1.81	1.03	3.17
friendly	322	0.000	2.54	1.52	4.23
clean	387	0.000	2.88	1.76	4.70

Table 5.8: Unadjusted odds ratios for 'looking back' by postnatal variables (continued)

	n	95% CI for OR			
		Sig	OR	Lower	Upper
Ward adjectives (negative) (2003)					
Busy, frightening, chaotic, boring, noisy		Not significant			
dirty	38	0.000	3.86	1.86	8.00
crowded	68	0.002	2.61	1.41	4.84
lonely	178	0.001	2.22	1.37	3.61
Not enough help, after the birth (2003)	95	0.02	2.05	1.15	3.66
Difficulty forming a relationship with baby	39	0.000	4.01	1.94	8.28
Gave up breastfeeding sooner than hoped		Not significant			
Negative description of baby (2000 or 2003)		Not significant			
Positive words					
Cuddly (2000) – not selected	145	0.05	1.70	1.001	2.87
Cuddly (2003) – not selected	138	0.05	1.69	1.000	2.88
Contented (2000) – not selected	173	0.04	1.71	1.04	2.82
Negative words					
Exhausting (2000)	142	0.02	1.88	1.12	3.16
Exhausting (2003)	276	0.004	2.01	1.25	3.22
Demanding (2003)	351	0.02	1.75	1.08	2.83
Had another baby since index birth in 2000	142	0.001	2.31	1.39	3.83
Important events since the birth in 2000		Not significant			

Before adding the ward adjectives to the model, binary logistic regression was undertaken on them collectively including parity and mode of birth. Following creation of this mini-model, only 'safe' was significant and this was then added to the postnatal model (table 5.9).

Table 5.9: Postnatal model – binary logistic regression model of predictors of unhappiness with the birth experience three years later (n=648)

	Sig	OR	95% CI for OR	
			Lower	Upper
Mode of birth				
Elective caesarean	0.18	1.98	0.74	5.34
Emergency caesarean	0.000	8.26	4.04	16.89
Instrumental birth	0.002	3.31	1.53	7.16
Multiparity	0.69	0.88	0.48	1.61
Baby had a problem at birth	0.016	2.08	1.15	3.76
Child health or behaviour problem	0.007	2.26	1.25	4.08
Difficulty forming relationship with baby	0.041	2.54	1.04	6.21
Not feeling could ask for help on postnatal ward	0.000	3.21	1.75	5.87
Not describing the ward as 'safe'	0.001	3.06	1.56	5.99

5.7 The final model

The pre-pregnancy and antenatal model, the labour and postnatal model were combined resulting in the following picture (table 5.10). It can be seen that labour variables are most predictive of a negative appraisal of the birth experience three years later. Multiparity becomes significant.

Table 5.10: Final model – adjusted odds ratios for predictors of ‘looking back’ including antenatal, labour & birth and postnatal variables (n=480)

	Sig	OR	95% CI for OR	
			Lower	Upper
Mode of birth				
Emergency caesarean	0.001	10.40	2.65	40.87
Instrumental birth	0.001	7.17	2.14	23.99
Multiparity	0.032	3.83	1.12	13.05
Very worried about thought of labour pain	0.31	1.66	0.62	4.44
Not given right amount of information antenatally	0.043	2.88	1.03	8.06
Labour pain not at all as expected	0.035	2.89	1.08	7.74
Feeling baby’s life in danger during labour	0.18	1.98	0.74	5.34
Not always treated with respect / individual	0.18	2.00	0.73	5.50
Wanting one midwife throughout labour	0.06	0.41	0.16	1.04
Not having close contact with baby within 1hr	0.003	5.79	1.78	18.82
Not satisfied way responded to labour pain	0.06	2.44	0.96	6.22
Being left alone in labour when worried her	0.045	2.94	1.02	8.42
Length of labour (hours)	0.018	1.08	1.01	1.15
Not feeling staff were supportive during labour	0.001	5.05	1.94	13.17
Feeling staff were insensitive during labour	0.013	3.95	1.33	11.72
Baby had problems at birth	0.048	3.14	1.01	9.73
Child health / behaviour problems	0.22	1.96	0.66	5.82
Difficulty forming a relationship with baby	0.86	1.15	0.25	5.32
Not feeling could ask for help postnatal ward	0.13	2.28	0.79	6.62
Not feeling that the ward was safe	0.086	2.98	0.86	10.32

The following figure (figure 5.2) provides a summary of the significant predictors of unhappiness with the birth experience three years later, in the pre-pregnancy and antenatal model, the labour model, the postnatal model and the final combined model.

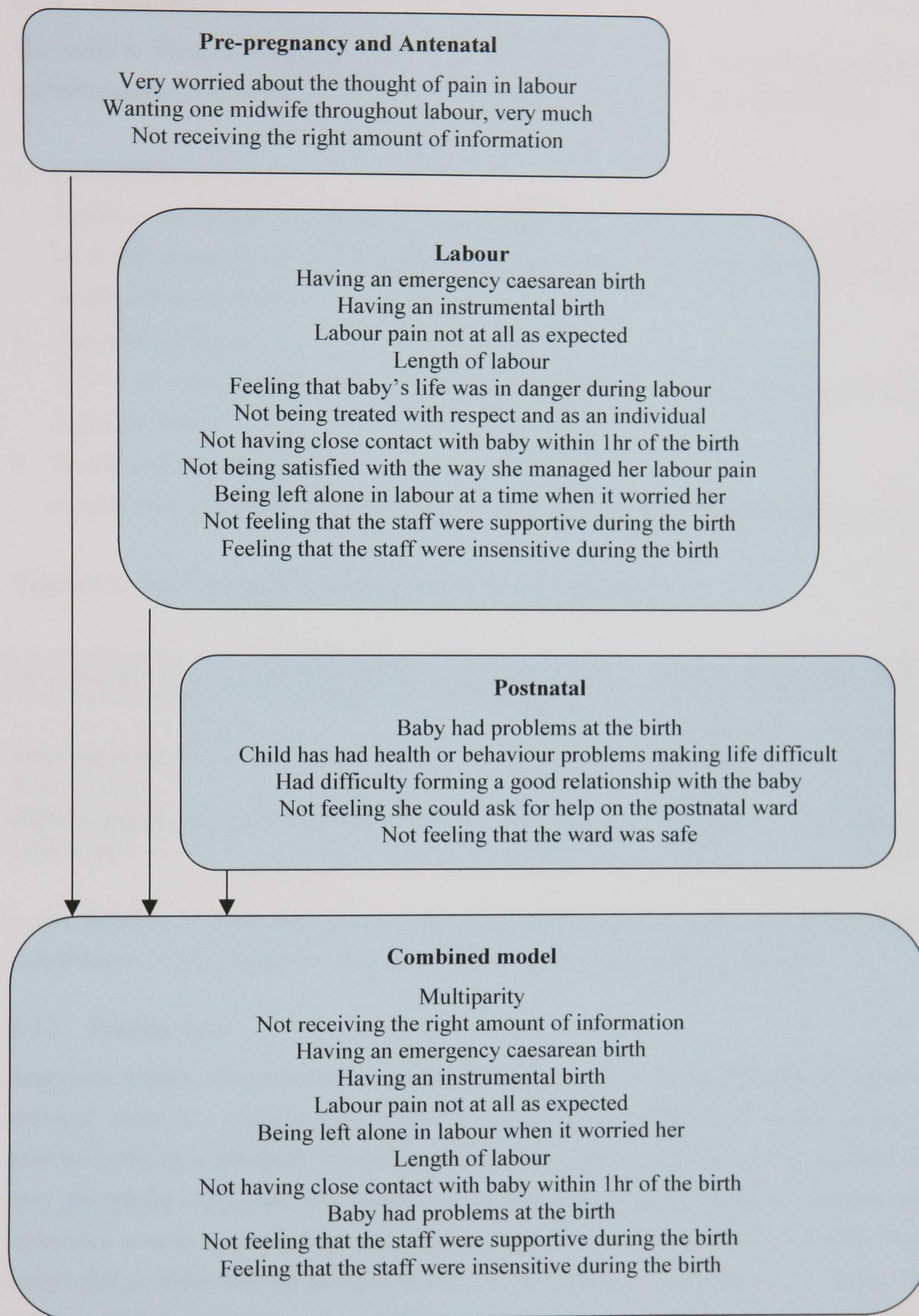


Figure 5.2 Summary of significant predictors of unhappiness with the birth experience three years later, following binary logistic regression modeling

5.7.1 Goodness of fit

The extent to which the model contributes to the prediction of being unhappy looking back with the birth experience is observed by the values of the following model statistics (table 5.11):

- *Cox and Snell R Square*

Similar to the statistic R^2 in multiple linear regression, this is based on the log likelihood for the model compared with the log likelihood for the baseline model. This calculation takes the sample size into account.

- *Nagelkerke R Square*

This is an adjusted version of Cox and Snell to enable the scale to range from 0 to the maximum value 1.

- *Hosmer and Lemeshow Test*

A model that fits the data well generates a low chi-square and a high (insignificant) p-value.

Table 5.11: Summary table of the goodness of fit of all the models

	Cox & Snell R square	Nagelkerke R square	Hosmer and Lemeshow Test	
			chi-square	p value
Antenatal model	0.12	0.24	6.06	0.42
Labour model	0.26	0.51	6.02	0.52
Postnatal model	0.15	0.29	4.50	0.81
Final model	0.34	0.67	8.46	0.39

It can therefore be concluded that the size of R^2 (67%), the low chi-square (8.46) and its insignificance (0.39) indicates the final model (table 4.9) is a reasonable fit to the data.

5.7.2 Missing data

Regression models only incorporate cases for whom there are no missing data for the variables included. There is a potential that women excluded from the model could differ from those included resulting in the model not being generalisable to the whole sample. Two hundred and forty six women (33%) had data missing for at least one variable. Univariate analyses were undertaken comparing women who were included in the model with those who were not. These women did not differ from the excluded women for: 'looking back', age, education or parity. Nor did they differ by: pain as expected; being treated with both respect and as an individual; satisfaction with the way they responded to labour pain; being left alone in labour; length of labour; feeling staff were insensitive; feeling the baby's life was in danger during labour; child health or behaviour problem; having difficulty forming a good relationship with the baby or

feeling able to ask for help on the postnatal ward. They did, however, differ in terms of mode of birth (fewer emergency caesareans in model), having the right amount of information (more in model); close contact with baby within one hour after birth (more in model); feeling staff were supportive (more in model); and baby having a problem at birth (fewer in model). Hence those women who were included in the model were broadly similar to those who were not. However, it appears that those women who had a more positive experience of birth were more likely to have completed the questionnaires fully. Women who had an emergency caesarean and whose baby had a problem at birth may have found that the questionnaires were more orientated to women who had a vaginal birth. As women who had an emergency caesarean were more likely to appraise their birth negatively and they were under represented in the model, the results should be interpreted in this light.

5.7.3 Examination of residuals

Creation of a multivariate model using logistic regression enables the researcher to predict the probability that a case should be in a particular category. When a case does not fall into the expected category it is said to be an ‘outlier’ and such cases can reduce the power of the model. It is important, therefore that outliers are identified so that the accuracy of the data can be assessed and this was achieved by examination of residuals produced by SPSS. The programme was asked to identify outliers outside two standard deviations and eleven were picked up. Each case was explored for accuracy of data entry for the variables in the model and this was confirmed. It was also confirmed that despite presence or absence of the risk factors identified by the model, it did not fit the women. For some of the women, it was possible by going back to the questionnaires, to get a measure of some issues that were not captured by the model. For example, one woman who had only three risk factors for having a negative appraisal of her birth experience (multiparity, finding the pain not as expected and not being able to ask for help on the postnatal ward), was unhappy with the way things went looking back. In the ‘free-text’ boxes in her questionnaire, however, she had written, “at the end – midwife panicked, baby had bowels opened inside me. Suddenly three more staff arrived and said I must get this baby out” and regarding her hospital stay “lack of communication”. The outliers reflected the reality of varied experiences and they were therefore left in the data set.

5.7.4 Predicting unhappiness with the birth experience

The model can be used to calculate the probability that a woman would be unhappy with her birth experience three years later, using the model's constant and coefficients for factors in the following mathematical equation:

$$\frac{1}{1 + (\text{exponent of } - (\text{constant} + \text{sum of the B coefficients of the risk factors}))}$$

The following *hypothetical* scenarios illustrate the impact of supportive care in labour in the context of other variables from the final model (table 5.10). The odds ratio is used to calculate the B coefficient (odds ratio = exponential of the B coefficient).

Scenario 1

If a multiparous woman did not receive enough information during pregnancy, did not find labour pain as she expected it, had an emergency caesarean and the baby had a problem at birth, her probability of feeling unhappy about her birth experience three years later would be:

$$\frac{1}{1 + \text{exponent of } - (-8.516 + 1.34 + 1.059 + 1.061 + 2.342 + 1.143)}$$

$$= \frac{1}{1 + \text{exponent of } -(-1.571)}$$

$$= \underline{17\%}$$

Scenario 2

If the same woman with all of the above 'risk factors' also had carers who were unsupportive and insensitive, who left her alone in labour when it worried her and did not facilitate close contact between her and her baby within one hour of the birth, she would have a 99% probability of feeling unhappy with her birth experience:

$$\frac{1}{1 + \text{exponent of } - (-8.516 + 1.34 + 1.059 + 1.061 + 2.342 + 1.143 + 1.62 + 1.375 + 1.077 + 1.756)}$$

$$= \frac{1}{1 + \text{exponent of } -(4.257)}$$

$$= \underline{99\%}$$

5.7.5 In summary

Having an emergency caesarean was the strongest predictor of unhappiness with the experience three years after the event. It had been hypothesised that how women felt about the birth experience would not be related to mode of birth *per se*, but to a catalogue of factors relating to variables that preceded, included and followed it. This hypothesis was not supported and emergency caesarean and instrumental birth both increased the odds of feeling unhappy with the way things went. Many of the other risk factors for unhappiness with the birth experience were related to the way that women were cared for by the staff and women's perceptions of them. These issues will be explored in further detail in chapter 6 focusing on women who had an emergency caesarean birth.

5.8 Women who had an emergency caesarean and looking back

It is clear from the final model that having an emergency caesarean was highly predictive of unhappiness with the birth experience looking back three years later, over and above associated variables such as not having close contact with the baby after birth. The question that subsequently arose was what aspects of the experience were predictive of unhappiness with the birth experience specifically for women who had an emergency caesarean birth? To address this issue a further model was developed, focusing on women who had an emergency caesarean, referred to as the 'emergency caesarean model'.

5.8.1 Developing the 'emergency caesarean model': the measures

As a starting point the variables that had been used in the final model for the cohort as a whole were used in univariate analysis to determine if there was a relationship between them and 'looking back' when only women who had an emergency caesarean were included. The unadjusted odds ratios for these variables are presented in table 5.12.

The interview data also provided insight into variables that might be included in the 'emergency caesarean model'. The following woman, for example, raised two important issues, 'having a say in the decision' and 'post-operative pain':

Like I say, I would never recommend it to anybody [...] its scary, when you, when it is thrust upon you like that, it's scary, erm, it's not an easy way out, it hurts [544].

Table 5.12: Unadjusted odds ratios for final model variables by 'looking back', limited to women who had an emergency caesarean birth

	n	95% CI for OR			
		Sig	OR	Lower	Upper
Multiparity		Not significant			
Very worried about the thought of labour pain		Not significant			
Wanting 1 midwife throughout labour	24	0.023	3.27	1.18	9.11
Not receiving the right amount of information	25	0.015	3.41	1.27	9.15
Labour pain not at all as expected	30	0.05	2.89	1.02	8.19
Feeling baby's life in danger during labour	36	0.005	4.11	1.55	10.94
Not always treated with respect / individual	37	0.002	5.01	1.85	13.61
Not having close contact with baby within 1 hr	26	Not significant			
Not satisfied way responded to labour pain	33	0.007	4.46	1.51	13.12
Left alone in labour when worried to be left	9	0.04	4.60	1.05	20.25
Length of labour (hours)	63	0.004	1.12	1.04	1.21
Staff not perceived as supportive 3 years later	21	0.002	5.57	1.92	16.13
Staff perceived as insensitive 3 years later	19	0.002	5.60	1.87	16.77
Baby had problems at birth		Not significant			
Child / health behaviour problems		Not significant			
Difficulty forming a relationship with baby		Not significant			
Not feeling could ask for help postnatal ward	12	0.013	5.26	1.42	19.53
Not feeling the ward was safe	47	0.009	4.04	1.42	11.52

I was able to test out whether these had been issues for other women who had an emergency caesarean by going back to the questionnaire data. In the postnatal questionnaire at six weeks women were asked: Have you had any of the following problems? [PNQ, page 30, QE1]. The list that followed included: 'pain or problems following caesarean or forceps delivery'. When analysis was confined to women who had an emergency caesarean birth, a chi-squared test showed evidence of a relationship between 'looking back' and women who chose this option. Of the women who were 'unhappy' looking back, 70% had pain or problems following surgery compared with 39% of those who were 'happy' ($p=0.008$, $\chi^2=7.04$, $df=1$). The unadjusted odds ratio was 3.67, confidence interval 1.37 – 9.23, $p=0.01$; that is having problems following surgery was associated with a 3.67 fold increase in the odds of feeling unhappy with the birth experience three years later. However, this variable did not make a significant contribution to the 'emergency caesarean model'.

It emerged from the interview data that many women felt that they did not have a say in the decision to have a caesarean. Similarly, I referred to the questionnaire data to find out if there was a relationship between having a say in the decision to have a caesarean section and 'looking back'.

In the postnatal questionnaire at six weeks women were asked: How much say do you feel you had about having a caesarean section? The majority (54%) felt they had no say at all in the decision. Of the women who were 'unhappy' looking back, 73% felt they had no say at all compared with 45% of those who were 'happy' ($p=0.016$, $\chi^2 = 5.77$, $df=1$). The unadjusted odds ratio was 3.37, confidence interval 1.22 – 9.28; that is having no say in the decision to have an emergency caesarean was associated with a 3.37 fold increase in the odds of feeling unhappy with the birth experience three years later. However, this variable did not make a significant contribution to the 'emergency caesarean model'.

Perceiving that she might not survive her labour was also a potential risk factor for feeling unhappy with the experience of birth. All women were asked in the follow-up questionnaire (page 15, C33) 'Did you feel that your life was in danger at any time during the birth?'; response options were 'yes' and 'no'. When analysis was limited to women who had an emergency caesarean birth, univariate analysis revealed a significant relationship with 33% of the woman who had thought their life was in danger feeling happy with their birth experience compared with 75% who had not ($p=0.002$, $\chi^2 = 9.72$, $df=1$). The unadjusted odds ratio was 6.00, confidence interval 1.80 – 20.04; that is, thinking that her life was in danger during the birth was associated with a six fold increase in the odds of feeling unhappy with the experience.

Preparation for emergency surgery involves many clinical procedures (see Appendix 1 'Procedure for emergency caesarean') many of which will be unfamiliar or unexpected. Women who had a caesarean were asked (FQ, page 12, C22) 'Did the staff explain what they were doing while they were preparing you for theatre?' The response options were: 'no, hardly at all'; 'yes sometimes' and 'yes throughout'. Univariate analysis revealed a significant relationship with 63% of those responding 'no' feeling unhappy with their birth experience compared with 44% who responded 'yes, sometimes' and 25% who answered 'yes, throughout' ($p=0.048$, $\chi^2 = 6.09$, $df = 2$). When women who responded 'no, hardly at all' were compared with those who answered 'yes throughout' they had more than a five-fold increase in their odds of feeling unhappy with their birth experience (OR = 5.12, CI = 1.08 – 24.20).

There was no relationship between women's age, education or employment and 'looking back'. Other aspects of the experience which were considered potentially relevant, but did not show a univariate relationship with 'looking back' were: method of anaesthesia; how she felt when the decision was made; whether or not her partner stayed while she was being prepared for theatre, how relaxed or tense the staff appeared who were preparing her, how she felt while she was being

prepared, if the midwife who had prepared her stayed with her in theatre; whether or not her partner stayed in theatre and having enough help in the first week after birth.

5.9 The 'emergency caesarean model'

The model was developed using the same method outlined previously and is presented in table 5.13. As there were only 87 women who completed a follow-up questionnaire and who had an emergency caesarean birth, the ratio of cases to variables necessitated caution during construction of the 'emergency caesarean model'. The three variables of 'not perceiving the staff as supportive', 'not always being treated with respect and as an individual' and 'feeling that her life was in danger during the birth' were consistently significant in the model. The variable 'length of labour' was potentially a valid predictor of unhappiness with the birth experience for these women, however its inclusion in the model reduced the number of cases by 25 (30% of the sample). Another source of the same information (FQ page 12, Q C18 'When was the decision made to have a caesarean? – during labour after ... hours) was tried in the model. This reduced the number of cases to 64 which gave rise to large standard errors and an extremely broad confidence interval for the variable 'feeling that her life was in danger during the birth'. An estimate of the length of labour was therefore not included in the model.

Table 5.13: The 'emergency caesarean model' - adjusted odds ratios for predictors of unhappiness three years after the birth (n=83)

	Sig	OR	95% CI for OR	
			Lower	Upper
Parity	0.42	0.59	0.17	2.11
Not feeling staff were supportive during birth	0.003	6.96	1.90	25.48
Not always treated as an individual and respect	0.002	7.18	2.07	24.94
Feeling her life was in danger during the birth	0.004	9.98	2.13	46.83

The remaining variables did not materially impact on the model. The small size of this focused sample has given rise to wide confidence intervals. Even at their lower limit, however, the results are important and provide valuable insights into the influence of aspects of care on women's perceptions of their birth.

5.9.1 Goodness of fit of the 'emergency caesarean model'

The size of R^2 (42%) and the insignificant chi-square ($p=0.91$) indicate the final model (table 5.13) is a reasonable fit to the data (table 5.14).

Table 5.14: Summary table of the goodness of fit of all the 'emergency caesarean model'

	Cox & Snell R square	Nagelkerke R square	Hosmer and Lemeshow Test	
			chi-square	p value
'emergency caesarean model'	0.29	0.41	3.35	0.91

5.9.2 Missing data

Four of the 87 women who had an emergency caesarean and returned a follow up questionnaire had missing data. This sub-sample was too small to permit meaningful analysis of missing data.

5.9.3 Examination of residuals

There was only one outlier case identified. She felt unhappy looking back on her experience of birth despite perceiving the staff as supportive, always being treated with respect and as an individual and not fearing for her life. She did however have a long labour.

5.10 Summary of chapter

There are many factors that have the potential to influence how a woman perceives her birth experience three years later. One significant influence is her perception shortly after the birth and the women in this cohort who were happy at six weeks mainly remained so after three years. Univariate analysis had shown that having an emergency caesarean birth was associated with a negative long-term perception of the experience. It had been hypothesised, however, that mode of birth itself would not be a predictor of this perception, but those events preceding and surrounding the birth would outweigh the impact of an unexpected assisted birth. Multivariate analysis provided a useful tool to identify predictors of unhappiness with the birth experience. A final model was developed following the combination of antenatal, intrapartum and postnatal predictive measures. It identified that having an emergency caesarean birth was the largest risk factor, closely followed by an instrumental birth. Not having close contact with the baby within an hour of the birth and perceiving the staff to be insensitive or not supportive were also highly predictive of a negative appraisal of the birth.

The experiences of women who had an emergency caesarean were further explored using multivariable analysis with regard to having a negative perception of the birth. The most predictive experience for these women was feeling that their own life was in danger during the birth, not always being treated as an individual and with respect and not feeling that staff were supportive during labour. The common theme for all women was the aspect of lack of support during labour.

The next chapter explores the impact of emergency caesarean on women's lives.

CHAPTER 6: **Sequelae of emergency caesarean**

6.1 Introduction

Multivariable analysis of antenatal, intrapartum and postnatal variables indicated that emergency caesarean birth was the strongest predictor of a negative appraisal of the birth, three years later. This chapter explores the impact of emergency caesarean on women with the aim of answering the following questions:

1. How does emergency caesarean birth influence women's experience of postnatal care?
2. How does emergency caesarean influence the initiation or duration of breastfeeding?
3. How does emergency caesarean influence a woman's relationship with her baby?
4. How does emergency caesarean birth impact on women's subsequent emotional well being in the short (six weeks after the birth) and long term (three years after the birth)?
5. How does the experience of emergency caesarean birth influence women's decisions about subsequent births?

These questions were explored in detail through analysis of the interview data and from the follow up questionnaires. These data were inextricably linked each informing the interpretation of the other. For example, the regression model showed that not having close contact with the baby in the first hour after the birth predicted a negative appraisal of the experience three years later. The interviews provided insights into the range of situations where this separation was manifest for women who had an emergency caesarean, such as not remembering seeing the baby when it was first born and how this made them feel about their relationship with the baby. It was then possible to go back to the quantitative data to identify if there were associations between how women described their baby three years the birth and having close contact within the hour. Secondary analysis of existing data provided further insights. Thus data analysis was a complex iterative process.

6.2 Postnatal care and recovery

- | |
|-------------------------------------------------------------------------------------------|
| 1. How does having an emergency caesarean influence women's experience of postnatal care? |
|-------------------------------------------------------------------------------------------|

6.2.1 The ward environment

During the interviews four years after the birth, many women remembered the loneliness they felt being in a single room. It is also clear from these data that no discussion took place between midwives and women regarding the type of postnatal environment they might prefer:

I thought it a bit lonely to be honest. I prefer (laughs) I preferred my other experience [following a spontaneous vaginal birth] where I was with a, a room full of ladies, you know, 'cos it's (pause: 2 seconds) it's just a bit of camaraderie really, a bit of support. 'Cos they were I don't know whether it's, it's sort of the norm that you go into a room if you've had a caesarean, or perhaps it's because I had a, I went under full anaesthetic. I don't really know to be honest. But I just woke up in this room (laughs) and that's how it was really. I just felt a bit, you know, you're just on your own a lot. And of course, if you're not having visitors it can be very lonely (laughs slightly) really [223].

One woman found being in a single room particularly frightening when she could not summon the attention of a midwife when she needed one:

They gave her [baby] to me and they left her, I was laid on the bed and they laid her here under my arm, erm, and she was slipping, and I had no feeling in my arms, and I couldn't reach the buzzer. So I was scared then, and there was nobody there, so I shouted. I was in a ward on my own, erm, which is where they put the caesarean people [433].

One woman had a single room following the birth of her Millennium baby and experienced care on a general ward following a subsequent elective caesarean. When asked which she would prefer for her postnatal recovery if given the choice, she clearly felt that the social atmosphere of the ward was the better option:

I'd say get onto a ward, 'cos it'll do your soul more good, you know, and get a bit of company. I'd definitely, and I've said that to friends of mine who've been having babies or "if you have a caesarean do try and get onto the ward to get a bit of company with the other mothers" [1375].

She had found it difficult to leave the confines of her room with her first baby because she was nervous about leaving the baby on its own. The midwives only tended to come in to see her if they had a specific task to do, such as administer analgesia. Another woman enjoyed the benefits of a single room but felt confident to leave the room to socialise with the other women:

It meant, erm, I didn't have to share a room with all these other women and crying babies; it was great (laughs). I had a television and I, I liked having my own, a single room, because you could just, erm, do what you wanted, and you didn't have to worry about

somebody watching you [...] you've got so much in common with all the other women on there you sort of soon get to know everybody, you know, you chat to everybody and 'cos you've all just had a baby, so you've all got something exciting to tell each other, you know share your stories [848].

Women were asked about their hospital accommodation in the follow up questionnaire. Overall, 24% of women had their own room postnatally, although this varied depending on mode of birth. Of the women who had an emergency caesarean 42% had their own room compared with only 19% who had a spontaneous vaginal birth ($p < 0.001$, $\chi^2 = 28.98$, $df = 3$).

In the follow up questionnaire women were asked to circle adjectives which described the ward environment from a grid of 16, with the option of adding their own (FQ page 18 D7). There were no significant differences by mode of birth for the following adjectives: busy, dirty, homely, orderly, calm, crowded, safe, noisy, lonely, clean, relaxing, chaotic, or boring. However, women who had an instrumental birth were least likely to rate the ward as friendly, women who had an emergency caesarean were most likely to rate the ward as supportive and both of these groups were most likely to rate the ward as frightening compared with other women. Women who had their own room were significantly more likely to describe the ward environment as relaxing, frightening and boring.

6.2.2 The hospital stay

One woman who had not experienced hospital in-patient services prior to the birth of her baby found the experience valuable, not only because she made new friends but also because she had the opportunity to learn some basic baby care skills:

I didn't feel I'd had a bad stay in hospital. I'd never been in hospital before, so it was quite nice, and as I say, I met this friend, and we're still in touch now, so obviously, so it's quite nice [...] at least while I was there they showed me how to bath her, which was quite a big thing to me really, that normally you go home and you're so worried about this little bundle, erm, that they could show you all these things while they were there [433].

Some women were eager to get home following their emergency caesarean, finding the ritualistic nature of hospital care difficult to tolerate:

I wanted to go home the next day, but they said you've practically got to lick the consultant's boots, because you've got to stay, we've got to monitor you [...] The institutionalised nature of, you know, choosing, just barmy things like choosing your, your six o'clock dinner just after you've had your breakfast, the boredom of it all, having to,

having to ask, having to wait for the tea trolley to come before you could have a cup of tea. And I just, I just couldn't bear it any longer, I did four days and then asked to go home 'cos I'd had enough [1307].

One woman was unable to take account of her own physical needs in relation to the decision about when to leave hospital, as her partner was struggling to care for her daughter without her:

And I came back and it was unbelievable, there was just like nappies and everything all over the place [...] he was lying in bed, and she was, just, you know, he'd get up and feed her, and just go back to bed again. So erm, yeah, I stayed there [in hospital] from the Saturday till the Monday, and they let me out Tuesday morning. I would have been out before if I could [544].

Women were asked about their hospital stay in the follow up questionnaires (FQ pages 17-19). Women who had an emergency caesarean birth were most likely to stay in hospital for five days or more (55%) compared with elective caesarean (50%) instrumental birth (16%) and spontaneous vaginal birth (9%). Forty eight percent of all women felt they had a choice regarding their length of stay but women who had an emergency caesarean were the most likely to feel that they had no choice (29%) compared with women who had a spontaneous birth (20%). Twenty two percent of all women felt that their hospital stay was too long but there were no significant differences by mode of birth.

6.2.3 Help with baby care

One reason for staying in hospital following the baby's birth is to receive assistance with the baby's subsequent care. Many women needed help with baby care but rarely got it and found it difficult to ask:

I can't remember what time he [husband] went home that evening, but then nobody offered to come and "are you alright changing a nappy? Can you...?" 'Cos I felt like I couldn't stand for very long, to stand over him, to, to change his bum. so, yeah, he went all night until my husband came to visit me the next morning [...] And I suppose I could have asked one of the midwives to do it, but I just didn't feel as if I could. Don't know why. (Pause: 3 seconds). Strange [1412].

However, a woman who had had a baby before was grateful that the midwives just let her get on with baby care and did not need much further assistance:

I think the second time round I knew the routine of the ward, so I knew where to get the baths from, and (pause: 2 seconds) just to get on with it really. And I was quite happy to do it [...] And I think the nurses probably second time round saw that I was doing that and were quite happy to leave me really [1375].

However, it was sometimes assumed that because a woman was multiparous that she did not need any help:

I'd done it already. But I would have still quite liked to have that you know, 'cos it's, you, you forget. Well, not forget, but you sort of maybe lose your confidence quite quickly don't you? So I would have quite liked to have somebody come and do that first bath with me again, but that didn't happen we just, you know, trudged down to the room by ourselves, and then, and did it [975].

One primigravida asked for help when she needed it and was grateful not to have the midwives take over:

Erm, a little [help] yes, but only what I asked for [...] But when I asked for it, they were happy to give it. But I wouldn't have wanted them to push it on me. I wanted to do as much as I could myself [877].

In the follow up questionnaire, women were asked if they were asked if they needed any help with baby care (FQ page 18 D5) and response options were: 'yes often'; 'occasionally' and 'no, never'. Thirty nine percent of women, overall, stated that they were never asked and primiparas were more likely to be asked than multiparous women. When looked at by mode of birth, the women most likely to be often asked if they needed help were those who had an elective caesarean (38%) followed by women who had an emergency caesarean (30%) instrumental birth (19%) and then those who had a spontaneous vaginal birth (14%; $p < 0.001$, $\chi^2 = 39.33$, $df = 6$). There were no significant differences between women feeling that they could ask for help and their mode of birth.

6.2.4 Talking about the birth

Women who have needed assistance in order to give birth are more likely to have unanswered questions about the indications for the intervention, the impact of the intervention on themselves or the baby and the implications of such intervention on their future. It would be expected therefore that maternity care staff would be most likely to sit down and talk through how the birth went with women who had emergency caesarean. There was no evidence from the interview with women that there was any opportunity to talk about their feelings following their unexpected intervention:

I can't remember anyone actually talking to me about post-caesarean, and how I might feel about it. I think it was all at the physical end, not at the mental end, if that makes sense? [1343]

Some women felt that there should be an independent person that they could talk with about their emotions, someone outside the family unit:

I just think there should be a bit more counselling, or advice, or help available to women [...] I think that's the most important thing for women is - who've had an emergency section to have that, somebody to talk to afterwards, because, you know, you can't really talk to your partner 'cos he doesn't understand [1382].

Responses to the follow up questionnaire revealed some interesting data with regard to the question, 'Did anyone sit down with you and talk about the birth during their hospital stay' (FQ page 17 D2). Women who had the most planned birth, elective caesarean, were significantly more likely to discuss the birth with a health professional (43%) than women who had either an emergency caesarean (32%) an instrumental birth (23%) or a spontaneous vaginal birth (17%: $p < 0.001$, $\chi^2 = 38.59$, $df = 6$). Overall, for 53% of women the person most likely to discuss how the birth went had also been present at the time, however, this was the case for 70% of the women who had an elective caesarean. Women were also asked if they had discussed how the birth had gone with the community midwife when they got home and if so whether or not this had been helpful. Most women had discussed the birth (78%) but at this time, women who had an elective caesarean were least likely to have done so (62%). Of the women who had discussed the birth with the community midwife, most had found it helpful (71%) and there were no differences regarding helpfulness by mode of birth.

6.2.5 Care at home

Coming home from hospital with a new baby is potentially a time of relief and uncertainty. Leaving hospital and facing the hustle and bustle of the outside world came as a shock for some women as the extent of their limited mobility confronted them:

I remember saying, "oh, we'll stop at the shops" 'cos I felt really active and mobile in there [hospital] and I thought, "oh this is brilliant, I feel really good" [...] And as soon as I got out of the ward I just felt awful, I couldn't hardly I could hardly walk, and I just, you know, I don't know, safety I suppose of being in there, erm, I mean I couldn't obviously go anywhere, we just sort of came home [830].

The frustration of not being able to undertake everyday activities was compounded by the fact that women wanted to be out in their community in their new role as mother:

Initially I sort of felt like you, it's happened, it's done. get on with it. And that's fine. And then I probably, about a week later, when I was home, and I wanted to take her out in the push chair, or the car, you know [...] but that's quite difficult. not being able to show them off, 'cos you want to, don't you? [877].

Many women talked about the particular manner of their community midwife and how they liked the 'very matter of fact' [775] or 'common-sense' [1307] approach to the delivery of postnatal care. Most women interviewed were full of praise for the care they received from their community midwife, seeing her as a valuable source of information and reassurance:

Very nice and friendly. Always came out. I thought she was coming out to my home because I'd had a caesarean, but apparently they come out whenever. Erm, (pause: 2 seconds) yeah, seemed more knowledgeable, because it's more, you, you got the feeling from her that she was constantly thinking, "oh, I've seen this before, I haven't seen this before," or, "that's normal," or "that's not normal." And that gives you confidence. You think, "well, she's seen ladies and babies day in day out. so yes, very good [1375].

It might be hypothesised that women who were recovering from surgery, with the dependency on others that their physical condition necessitated, might have felt more fearful leaving hospital with their new baby to care for than women who had had a vaginal birth. In the follow up questionnaire, women were asked to state how they felt when they got home from hospital (FQ page 20 D14) and their responses were coded either 'very positive': 'positive': 'mixed': 'negative' or 'very negative': there were no differences by mode of birth. There were no differences by mode of birth regarding having enough help in the first weeks after the baby was born (FQ page 20 D18) or in terms of who provided that support (FQ page 20 D17).

6.2.6 In summary

Women who had an emergency caesarean birth were most likely to be cared for in a single room postnatally. Whilst this was appreciated by some, others would have liked to have had the choice of being cared for on the ward in the company of other mothers. Women who had an emergency caesarean had a longer hospital postnatal stay than other women. Women who had an elective caesarean were more likely to be offered help with baby care than women who had an emergency caesarean and women were infrequently offered such help. Surprisingly, the women who had the most predictable mode of birth, elective caesarean, were most likely to have a professional come and discuss the birth with them: many women who had an emergency caesarean birth would have

valued a such an opportunity. Most women were positive about the care and support they received from their community midwife.

6.3 Breastfeeding

2. How does emergency caesarean birth influence the initiation or duration of breastfeeding?

6.3.1 Initiation of breastfeeding

Promoting early initiation of breastfeeding has been reported as one factor that contributes to successful breastfeeding (DiGirolamo, Grummer-Strawn and Fein 2001) and is potentially an aspect of care that could be compromised following caesarean birth (Rowe-Murray and Fisher 2002). This issue was therefore explored with women during the interviews. One woman remembered the first feed as a very positive experience:

I just remember then being, going through to the recovery room and giving him his first feed, and that was really lovely. I remember that being really nice thing, 'cos he was very easy to feed. That went really well that first feed. He wasn't easy after that (laughs) but that first one, that was good [830].

Another woman found that she was supported with the first feed but after that, she was left feeling without direction and uncertain about what she should do:

He suckled really really well within the hour that he was born, erm, and then the next morning I rang my buzzer 'cos this baby that I'd just had the night before started crying, and I thought, "hmmm, what do I do now?" And, so I thought, "Oh, I wonder if I should try and breastfeed him?" But I rung my buzzer first. [...] I said, "[baby's] crying, should I try and breastfeed him?" She went, "yes love, yes, if that's what you want to do, yeah." [1412].

Women were generally positive about the support they had with breastfeeding.

I had trouble with the breastfeeding, erm, as I say, she didn't feed for the first two days. But they would sit with me for a long time, a lot of different nurses 'cos they all had different techniques, but they were determined to try and help me [433].

One woman spoke of how pleased the midwives were that she aimed to breastfeed her baby because few women seemed to share her ambition. She remembered how committed the staff were to encouraging women to breastfeed:

I know that one nurse in particular spent quite a lot of time with a young mother saying, "it really is the best even if you just do it for a few weeks, it really is the best." So you've got a very clear indication that they were pushing that 'breast is best', and they did everything they could to make sure that you did. And I was glad of that [775].

Another woman whose baby was on Special Care was full of praise for the staff:

They were very good at helping me express, because obviously they had to have the milk there. They didn't wake me up in the middle of the night to feed, they let me have a good nights sleep (laughs). So, erm, I was expressing for them. And they were very good at helping me breastfeed [...] being a new mother, they were fantastic [1227].

In the follow up questionnaire, women were asked if they had wanted to breastfeed their Millennium baby (FQ, page 5, A11) although it would have been more prudent to have asked this question antenatally as women were likely to respond in relation to how they ultimately fed their baby. There were no differences between the proportion of primiparous women who wanted to breastfeed and the mode of birth. Looking at the multiparous women, however, revealed that those who were anticipating an elective caesarean were significantly less likely to want to breastfeed that baby (58%) compared with women who had either an assisted birth (both emergency caesarean and instrumental birth 67%) and those who had a spontaneous vaginal birth (81%) ($p=0.005$, $\chi^2 = 13.04$, $df=3$). Perhaps they were anticipating that they would need extra support in the postnatal period and that one way that others could help out with baby care would be to bottle feed the baby. Ultimately, this meant that significantly fewer multiparous women who had an elective caesarean initiated breastfeeding than other women, however mode of birth did not influence initiation of breastfeeding for primiparous women.

6.3.2 Duration of breastfeeding

One woman who was very keen to breastfeed her first baby needed a lot of support and guidance. However, she felt that whilst the midwife would come when she buzzed, she needed more of a constant presence. She described how a midwife would come and put her baby on the breast and then leave her to it rather than sitting with her:

I don't know really, whether someone could have been with me (pause: 2 seconds) doing, with me during the feed, erm 'cos he just kept coming off and wouldn't go back on, and, erm. I just, it was the pain from the caesarean and trying to sit, it was just really difficult to do [830].

She found that because she had had a caesarean birth, feeding was an uncomfortable experience made worse by the positions she was encouraged to adopt:

The position, it was just having cushions on where the scar was. and erm. yeah. it was just and I was sat in a chair that wasn't quite the right sort of chair the arms were a bit high and they were they sort of showed me him being on the outside of me, and then of course he was like near this drop, so my husband had to be there holding him on, and so it was just awkward, there was and no one with him suggested feeding him lying down in bed, whereas with my second son that was the first thing they said [830].

Another woman was struggling to feed her second baby and felt that the staff expected her to be an expert despite the very different circumstances surrounding each of her births:

So, whilst they were supportive, they were, and caring. I always felt at the back of the mind, my mind that they were thinking, "well, you should know this because you've had a baby already," Erm, so they weren't quite as supportive. I think every pregnancy's different, and every birth is different, and it's got to be treated like that, rather than, "well, you should know it anyway" [848].

One woman spoke of her determination to succeed and how she made good use of her time in hospital to get the support she needed:

I was absolutely determined to do it. Erm, and, while. whilst I was in hospital I knew that because I'd had a caesarean I'd be in there about four days, so it was just such a great opportunity to make sure I was doing it properly [...] I remember buzzing for a midwife to come and see that she was latched properly, and was I doing it right [...] they were very very patient, very very good. They told me that I'd have to persevere, that it may feel unnatural, erm, and that it might not be easy [...] I was determined anyway, so I did [1343].

Determination to succeed was an important attribute especially as the advice received could often be conflicting:

It was, erm, something that I was going to beat, and...there was a lady opposite me, and we had this discussion [...] we felt we could have done with, on the duty, a nurse actually being like assigned to you, rather than getting a passing one, because each nurse had a different way of actually getting them latched on. So, you'd ask someone one "oh, do it this way", you speak to someone else and "you do it that way", and it got frustrating [1307].

One woman described how she gave up breastfeeding sooner than she had hoped but she found the midwife's support around that time comforting and helped her come to terms with the situation:

I was really upset with that, that I'd only breastfed two and a half weeks, and I said, you know, "I want to give him more, I want to be able to, you know, breastfeed him a bit longer. She [midwife] says, "you've given him the best start anyway, he's got the most milk in the beginning," she says, "you know, it's you've done more than some people do, and you've done less than what others, you know you're his mother, you, you know, don't, don't beat yourself up about it." 'Cos I really wanted to breastfeed him for quite a while, but it didn't take. Erm, he didn't take to it long, enough. Erm, (pause: 3 seconds) I give him the best start, you know [1382].

The Unicef Baby friendly Initiative recommends that maternity services should practice 'rooming in' (World Health Organisation (WHO) 1989). This means that mothers and babies should remain together 24 hours a day from birth onwards or from when the mother is able to respond to her baby, where women have had a caesarean birth. Some women described how they were encouraged to place their baby in the ward nursery overnight to enable them to get some sleep, on the proviso that the baby would be brought back for breastfeeds. One woman found that although the principle sounded good, it did not work well for her in practice:

I sent him to the nursery (interruption, child). Erm, (pause: 2 seconds) but, but I'd sent him to the nursery again, so that I could sleep. And every time he cried or woke she brought him back in to feed him. Even I was thinking, "for goodness sake", you know. It's only fifteen minutes and she was waking me up to do it [305].

Another woman enjoyed the rest at the time but has since had second thoughts:

On the first night, erm, they came in and they said that I that they would think it was best for the baby to go into the nursery, which was just next door, so I could get some sleep. And I didn't want him to, I but I agreed because I, I knew that I was so tired, and I must admit that was fantastic that first night because I just slept and just then they brought him in, woke up to be fed. Erm, since then I've felt really guilty about it, because I didn't just do it the first night [830].

Despite the difficulties that some women faced regarding the support they received following their emergency caesarean birth, this was not reflected in the overall breastfeeding rates. In the follow up questionnaire, women who breastfed were asked when they stopped breastfeeding their Millennium baby (FQ, page 6, A14). There were no significant differences between the proportion of women who gave up breastfeeding within one or within three months and mode of birth. When

this analysis was stratified by parity, the differences between the groups still remained insignificant. However, it was reported that in 2000 (Green, Baston, Easton and McCormick 2003) multiparous women who had an emergency caesarean were significantly less likely to continue breastfeeding. The same trend was noted in the 2003 data with 61% of multiparous women who had an emergency caesarean still feeding after one month compared with 83% of those who had a spontaneous vaginal birth. The insignificant result in 2003 is likely to be a result of the smaller data set of women who initiated breastfeeding (n=574 in 2003 versus n=1000 in 2000). There were no differences between the proportion of women who gave up breastfeeding sooner than they had hoped and mode of birth. Primiparous women were significantly more likely to have given up breastfeeding by three months than multiparous women (57% versus 40%, $p < 0.001$, $\chi^2 = 14.42$, $df = 1$).

6.3.3 In summary

Women were generally positive about the support they received with regard to all aspects of breastfeeding. Multiparous women who had an elective caesarean were less likely to initiate breastfeeding than other women. Primiparous women were more likely to stop breastfeeding within three months than multiparous women. There were no differences between the duration of breastfeeding and mode of birth in the 2003 data set.

6.4 Impact on relationship with baby

3. How does emergency caesarean birth influence women's relationship with their baby?

It has been reported that women who experience emergency caesarean are more likely to experience relationship difficulties with their babies (Trowell 1983; Hillan 1992a). The interview data sheds light on experiences that may contribute to the way women felt about their baby.

6.4.1 Not witnessing the birth

One woman who did not feel as though she participated in the birth and who later described her detachment from her baby, wished that she had seen her baby born [305]. Wishing that they had been able to see the birth was a recurrent theme:

To have then seen the baby being born properly [...] I can't even remember them holding it up. [...] Erm, yeah, I, I would have been quite interested. Or to, to maybe have it [screen] a little bit lower so that you could maybe see a little bit [569].

The first time I wasn't bothered about it. But the second time I really really wish I'd said, "Can I have a look, when you're pulling the baby out?" Erm, but with the you know when the I, it just didn't occur to me till afterwards that I should have said, "please can I have a look?" Because I really would have liked that moment [848].

6.4.2 Detached

One woman felt detached from her baby by her experience. When she shared how she felt with her husband he became so upset that she did not speak to him about the matter again:

you sort of think, expect to bond with this baby. I just looked at this baby and thought, "what have you done to me?" that was awful. I remember [husband] was sitting there holding him, and I just couldn't have cared less. [...] it's like you've been absolutely violated by something that you've now got to, you're supposed to look after [...] I talked about it initially, and then realised that he [husband] didn't cope with it particularly very well. And then the time came when I told him that I didn't love [baby] when I had him, and he was really cross with me, I never mentioned it again after that, I just didn't talk about it [705].

Another woman who experienced an emergency caesarean with her Millennium (only) baby did not declare in the follow up questionnaire that she had any difficulty forming a close relationship with him (FQ, page 5, A6). She did, however, make comment in the free text box 'Is there anything else you would like to tell us about your caesarean section experience?' (FQ, page 13, C28), writing 'distant' and 'felt like I didn't bond with my baby'. During her interview she talked about how she felt detached from her baby:

He was my baby and I knew that, and there was no problem with me, erm, you know, you wanted to love him and that. But he didn't feel part of me. You know, you so probably a good week or so after I'd come back, till I'd come home. And I was in for, I was in for four days. I actually took they didn't want me to come home I took myself out of there because I couldn't sleep. And, so, (pause: 2 seconds) a few days after I'd come home. And then you suddenly realize that they needed you. (Interruption, child) [305].

Another woman described how it took time for her to form a bond with her Millennium baby:

It took me weeks to bond with, with [baby] - weeks and weeks to bond with her. I mean I, she didn't come out and we were bonded immediately, and I don't know whether that's normal after a vaginal or a caesarean birth. But erm, it, it was weeks before, before I actually felt a, a physical and emotional bond to her. But erm, but you know, we're, we're, we're together like Velcro now (laughter) [1343].

6.4.3 Complications

One woman, whose baby needed resuscitating at birth, felt unable to take in what the doctors were saying:

I remember this doctor coming in and started talking about this baby in special care and they'd managed to resuscitate him, and I couldn't listen. 'cos I was thinking, "I haven't got a baby, he's dead, he's dead." (Laughs) I think I was just hysterical. I just (pause: 2 seconds) couldn't listen to it, it was just like all of a sudden my head goes "the baby's dead", and then someone's talking about this baby (laughs) [337].

Another woman suggested that her own ill health compromised her relationship with her baby following the birth:

I think that it might be that I was just relieved to have the labour over and the baby born, and I, I really, I really don't know why I didn't feel that feeling [...] I don't know why I didn't. But I – whether it was because I imagined how I would feel, and that I would feel, erm, really well. And I'd felt ill afterwards, and you know, worn out, and (pause: 2 seconds) and, so whether that was partly to do with it [830].

6.4.4 Not given birth

Women described how they did not feel as though they had given birth and therefore did not feel connected to their babies:

I was quite upset about it because I hadn't, I didn't, I wanted to give birth. I wanted to give birth naturally. I wanted to wander around and give birth. And everything had gone completely the opposite way [...] I'd had to have an epidural, I'd had to have a C section, it had gone on for hours and hours and hours, and erm, I then didn't really feel like I had him [...] I actually said, 'yes, take him away'. Because I hadn't really felt as though I'd given birth or anything [305].

For many women, the experience of emergency caesarean did not influence their relationship with their new baby. Many described very positive emotions:

I was just absolutely ecstatic about this [index] baby [400].

I mean I could have climbed a mountain, I could have flown off an Empire State Building, you could have done, you could have done anything. You know, you had suddenly, it was like, it's real. This baby, it's real. You know, and it's moving, and it's real, and I can't believe it. And I couldn't believe it was there. I know you had all that time to think about

it, but until you actually saw the whites of its eyes. you know, it was just, it wasn't real. But it was amazing [1307].

This issue was also explored in the follow up questionnaires where women were asked 'Did you have any difficulties forming a good relationship with your Millennium baby?' (FQ, page 5, A6). Response options were: 'yes', 'no' and 'not sure'. Forty-one women said 'yes', of whom 49% (n=20) said this was because she had been ill, 35% (n=14) because the baby had been ill and the remainder either due to social circumstances or other relationship problems. Only one woman was not sure why the difficulty had arisen. There was no association between reported difficulty forming a relationship with the baby and mode of birth.

Women who stated that they had had difficulty forming a good relationship with their baby were more likely to use negative adjectives to describe their baby at 6 weeks than other women (44% versus 22%, $p=0.004$, $\chi^2=10.83$, $df=2$). However, this negativity was even more marked three years later (68% versus 30%, $p<0.001$, $\chi^2=26.71$, $df=2$). There was no association between the use of negative adjectives to describe the baby and mode of birth. Women who did not have close contact with the baby within the first hour after the birth, however, were more likely to have a high negative adjective ratio three years later than women who did (47% versus 31%, $p=0.002$, $\chi^2=12.21$, $df=2$). It might be considered that this was due to the baby being ill around the time of the birth, however, when babies who went to special care were excluded the proportions remained similar (46% versus 30%, $p=0.024$, $\chi^2=7.48$, $df=2$).

Individual adjectives used to describe the child at three year were then explored by mode of birth, stratified by parity. No relationships were found between the way that babies were described and the way that they were born.

6.4.5 In Summary

There were many factors raised during the interviews that could potentially influence how women felt about their baby postnatally including, not being 'present' at the birth, feeling detached from the situation and physical ill health. However, having a caesarean birth did not influence women's relationship with their baby or the way that they described them either six weeks postnatally or three years after the birth. Women who did not have close contact with the baby at birth used more negative words to describe him or her three years later.

6.5 Emotional well being

4. How does emergency caesarean impact on women's subsequent emotional well-being in the short (up to six weeks after the birth) and long term (up to four years after the birth)?

6.5.1 Satisfaction

It has already been shown that women in this study who had an emergency caesarean were less likely to feel satisfied with their experience of the birth, both at six weeks postnatally and three years later compared with other women. The subsequent interviews with women who had experienced emergency caesarean birth highlighted a range of emotions following the birth that had the potential to impact on their emotional well being.

6.5.2 Emotions expressed during the interviews

6.5.2.1 *Relief*

In the immediate time around the decision being made to have a caesarean, many women expressed relief that their baby would soon be born. One woman felt relief because she had had a caesarean for her previous child and was beginning to fear going through with a natural birth:

And to be honest I was sort of relieved, 'cos I'd had a, a caesarean before, and it had all gone really well, and things. And you know how thin the walls are in hospitals, I could hear this other poor woman who was having a horrible time, and I just thought, 'I don't think I want to do it!' (laughs) [975].

I was actually prepared because people had talked about 'mights' and 'maybes', so when it got to about seven o'clock in the evening they said 'look, if you're not, if you're no where near by eight, then we're going to deliver you' I, it was such a relief, and I, I just wanted, I, I just wanted to see the baby to be honest I couldn't wait any longer [1343].

It wasn't a negative thing to me really. It was just a case of, 'let's, let's get this thing done' really, by then [569].

6.5.2.2 *Positive experience*

One woman described how shocked she had been when told she need to go to theatre because she had no idea that anything was wrong. Despite this, she went on to describe the birth in positive terms:

I think it was a really really positive experience, and it's something that really I mean, I'm surprised I'm saying all this to you, 'cos I thought I don't quite remember - four years ago but it really does stick in my mind [400].

Being able to embrace caesarean birth as an acceptable mode of birth helped some women come to terms with their experience:

I just thought I was going to go and give birth naturally. So I don't feel cheated, 'cos people say, "Oh, you feel cheated, you haven't give birth properly." What happened happened. Erm, but generally I didn't have a bad time [433].

I didn't go in with any preconceived [...] I was more concerned about coming home with the baby. I wasn't getting hung up about a natural birth, I wanted a safe baby [...] I was happy to, I would have signed up for any, well, not anything but I was happy to go in, get it done, with the minimum amount of fuss [1307].

6.5.2.3 *Disappointment*

One woman spoke of her disappointment resulting from the missed opportunity for a natural birth. She described the 'really really positive' experience that her friend had had with her home birth:

She was totally in control of everything that happened. And so I sort of wish [...] I don't think it would have, you know, it would have gone well [...] I do, part of me does think, "oh, well, you know, it would have been really nice if I could have had that experience as well" [975].

Another women felt disappointed that her experience of birth had not lived up to the rosy picture portrayed in the media. Her baby was born requiring resuscitation hence the moment of birth was not the happy relaxed event she had hoped for:

These things you see on the telly the husband's kissing the wife aren't they, and telling her how wonderful they are, and it was nothing how you would think it's going to be [705].

Another woman also felt unprepared and thought that there should be more information antenatally, but particularly support postnatally to help women adjust to what had happened to them:

But meeting people who have been through the same as you, it really, really helps you, because it, it does it's quite, it's a bit, you know shocking really, you just, just don't know

what's hit you but (pause: 2 seconds) I think more than anything then (pause: 3 seconds) you should have the (pause: 2 seconds) the help and support afterwards, you know [1382]

6.5.2.4 Anger

Anger was another negative emotion that remained acute for some women. One woman, who had an emergency caesarean due to undiagnosed breech in labour, was angry about the fact that the midwives had not recognised the baby's presentation, which resulted in an unnecessary labour and unanticipated surgery. This was compounded by the fact that no one attempted to acknowledge the situation or resolve her frustration. When she attended the hospital for her postnatal examination she burst into tears:

But that got me nowhere. That didn't get anybody to say, "Oh, I'm really sorry about that," or "why do you feel angry". It didn't even get anybody to say, "Explain to me why you feel like this" [1375].

She went on to say that she could still cry about the anger that she continued to feel. Having recently had another child she felt reminded of her previous experience during her antenatal check-ups, "it brought it all back". She was unable to identify whether her anger had stayed because of her birth experience or because she had been reminded of it due to having another baby.

Another woman who suffered from postnatal depression felt anger towards her husband who did not disclose her illness to his parents:

Erm I must admit that I was a bit angry that my husband didn't talk to his parents about it very much, well I don't think he did at all, because they're very supportive, you know, they, they come a lot, and were coming a lot, they live not too far away. So that I was a bit annoyed that it wasn't it was as if it wasn't important enough for them to know that that's how I was feeling, 'cos I could have done with that sort of just people knowing that I'm, you know, how I was feeling, erm [830].

6.5.2.5 Fulfillment

One woman described her mixed emotions when the decision was made to have a caesarean after a long labour. She also conveyed an undercurrent of guilt for wanting more than a 'healthy baby':

Part of me still feels disappointed in a way that she wasn't born naturally, because I'd build myself up to that. Erm, however, I was just so grateful that I had a supportive team of people and they were putting the best interests of my child and myself, so erm, so I

trusted them completely, so I was quite comfortable, and when I heard the scream of my healthy baby, that's really all that mattered isn't it? [775].

The lack of fulfillment some women experienced was particularly intense for women who had not intended having another baby:

And when you hear, you know, these people say how wonderful it was, I suppose I feel a bit cheated, A bit 'I wish that could have happened to me'. but it didn't. That's how I feel about it now [...] I just feel is the oppo, the opportunities I had have been and gone, and I'll never know any different [705].

Another woman (who was only ever planning to have one child as her partner had two children from his first marriage) found the impact of the decision to have a caesarean very difficult to bear as her only hope to experience an unassisted birth were dashed:

When they told me I was going to have it, erm, I was devastated. Because I really did want to have a natural birth, and, erm, it just, they just sort of said, 'Right, we have to do it' and that was it. And it was quite devastating [877].

Despite this initial reaction, she gave a satisfaction score of ten out of ten at six weeks and was 'quite happy' looking back on her experience three years later. She was full of praise for all the midwives who cared for her 'They were there with me constantly, reassuring me and holding my hand', but particularly the midwife who stayed beyond her shift to be with her during the birth.

Six weeks after the birth, women were asked, 'Was the birth a fulfilling experience?' Response options were 'yes'; 'no'; not sure 'and' don't know what this means'. For the purpose of analysis, the options were categorised, 'yes' and 'any other answer'. The Chi square test was used to explore the hypothesis that women who had an emergency caesarean birth would be less fulfilled than other women; the hypothesis was supported. Of the women who had an emergency caesarean only 39% felt that their experience had been fulfilling compared with 60% of those who had a planned caesarean or an instrumental birth and 82% of those who had a spontaneous vaginal birth ($p < 0.001$, $\chi^2 = 83.58$, $df = 3$).

6.5.3 Depression

Whilst most women who had an emergency caesarean birth did not suffer any lasting emotional sequelae, for a minority of women, this was not the case. One woman who suffered from postnatal depression following the birth still had times when the memory was painful:

I would say I'm still not over it to be honest, not really. Because there was so much to take in, and (pause: 2 seconds) through the whole pregnancy and birth, and the weeks after that. that you know, you still look back on it and it still affects you. I mean, when I, by the time I'd gone back to work at seven months I was back to my normal self [...] I could hold normal conversations and be bubbly and everything else. But I would say that I still have times now where I think about it, and I still get down, not down. erm (pause: 2 seconds) still feel sad about it all, everything that happened [1227].

The majority of women interviewed showed resilience to their emergency surgery:

Fine. I felt great. I didn't (pause: 2 seconds) I didn't suffer with baby blues, or the erm - the community midwife and the health visitors were always asking that, you know. "I know baby's alright, are you alright?" And, erm, I had to fill in a questionnaire of 'how do you feel? A, b, or c?' And, and my score was always good. I never felt as if I got baby blues. And I just felt I was the best mum in the world, and he was the best baby in the world. I just thought it was wonderful [1412].

In 2000, six weeks after the birth, women were asked, 'Have you been feeling at all depressed?' Response options were: 'no, not at all'; 'only mildly depressed'; 'yes, quite depressed' and 'yes, very depressed'. These categories were collapsed into two: 'not at all depressed' and 'feeling depressed', to avoid small cell sizes. Confining analysis to women who had completed a follow up questionnaire, the Chi square test was used to explore the hypothesis that women who had an emergency caesarean would be more likely to feel depressed postnatally than other women; the hypothesis was not supported. Secondary analysis of the postnatal questionnaire completed six weeks after the birth did however reveal significant difference between the groups, probably due to the larger sample size. Women who had an emergency caesarean or an instrumental birth were more likely to report feeling depressed (56% and 58% respectively) compared with women who had an elective caesarean or a vaginal birth (42% and 47% respectively) ($p=0.01$, $\chi^2 = 10.82$, $df = 3$).

6.5.3.1 *Edinburgh postnatal depression scale*

Women were asked to complete the EPDS at six weeks and three years after the birth. Using analysis of variance, and confining analysis to those women who completed a follow up questionnaire, no association was found between mean EPDS scores and mode of birth at either time point. Mean scores were higher at three years (6.14) than at six weeks (5.43). The chi square test was used to explore associations between individual EPDS questions and mode of birth and none were found. The EPDS score was categorised into '12 and below' and 'above 12' (screened positive for postnatal depression) to explore the hypothesis that women who had an assisted birth

would be more likely to have a high EPDS score: the hypothesis was not supported at either time point.

EPDS scores were related to parity with primiparous women having significantly higher mean scores than multiparous women six weeks after the birth (5.90 versus 5.11, $p=0.02$, $df=1$) but not three years later (6.15 versus 6.14, $p=0.98$, $df = 1$). EPDS scores were related to fulfillment six weeks after the birth however, with only 7% ($n=38$) of women who thought their birth was fulfilling scoring 'more than 12' compared with 13% ($n=26$) who gave 'any other answer' ($p=0.02$, $\chi^2=6.43$, $df=1$).

6.5.4 Self esteem

6.5.4.1 *Physical appearance*

Part of how we feel about ourselves relates to our physical appearance (Crocker and Knight 2005). During the interviews, women who had a caesarean birth expressed a range of emotions about their bodies. For some women, the fact that they had not had a vaginal birth was a bonus to them, because their pelvic floor had not been stretched:

I like the fact that all my, you know, my musc, all my pelvic floor muscles and things are ok still (laughs) [975].

Erm, and, I mean the great thing is that you don't have any vaginal tearing, erm, but the worse thing is you know, you've got this livid scar, just across the bottom of your, of your belly, and I, I just looked at myself I was carrying this huge spare tyre, and erh, that, that upset me a fair bit [...] it took me the best part of six months to get back into my normal clothes, erm, 'cos that's another thing about a caesarean, you've, you still got all of this flesh that just doesn't want to go anywhere! (laughter) [1343].

The problem with overhanging skin was a recurrent theme:

But there's just this bit here. And it's just like an apron, and it's no matter what you do, or what exercise you do, I can't get it go down, and it's where the muscles have been cut. So I mean, that's all that bothers me, that bit of skin [1382].

In the follow up questionnaire women were asked how they felt about the way their body looked both before and after they had had children (FQ, page 21, E3 and E4). There were no differences in this regard, either between primiparous or multiparous women or by mode of birth.

6.5.4.2 *Self blame*

One woman blamed herself for the way her scar looked:

I hate it. I get out of the bath sometimes and I can see it in the mirror. and I think I remember the scar itself was fine, and how I mean, I need to lose a bit more really on my tummy I think, erm, it was just, it just sort of flopped over my scar. It's - I'm sure I can get rid of it, if I do a bit of exercise it will go [400].

Some women continued to question their role in the need for a caesarean with a tendency towards self-blame:

And I feel looking back on it now, having had another child, and knowing and I went through normal labour with that, I pushed and everything - and I do feel looking back on it [...] I should have realised that something was wrong when I'd been in labour for so long [...] If I hadn't had the epidural I'm sure I would have realised something was wrong earlier. [1227].

One woman questioned her standing as a mother following her emergency caesarean:

But it's the things you think of afterwards, about, 'are you a mother?' and are you all, are you all those sort of things, 'cos you've ended up having an operation to have one. But when you're in that situation, you just want him out [305].

Another woman took her interventions in her stride and when talking about her use of pain relief and having an epidural said:

I'm the only one of erm people I've met who went for the full monty (laughs) but I don't care, it doesn't make me feel less of a mother (laughs) [1343].

6.5.4.3 *Rosenberg's self esteem scale*

Self esteem was assessed three years after the birth by Rosenberg's self esteem scale (FQ, page 22, E5). Using analysis of variance, no association was found between mean self esteem scores and mode of birth. Rosenberg's scale was then categorised into 'below 15' (low self esteem) and '15 or above' to explore the hypothesis that women who had an assisted birth would be more likely to have low self esteem; the hypothesis that women who had an emergency caesarean would have a lower self esteem than other women was not supported.

6.5.5 In summary

Women expressed a range of emotions following emergency caesarean including relief, shock, positive acceptance, disappointment, anger and self blame. Women who had an emergency caesarean were less likely to feel satisfied or fulfilled following the birth than other women. There was no association between postnatal depression or self-esteem and mode of birth.

6.6 Having another baby

5. How does the experience of emergency caesarean birth influence women's decisions about subsequent births?

6.6.1 The decision to have another baby

It has been reported that caesarean birth results in fewer subsequent babies (Hall, Campbell, Fraser and Lemon 1989; Levy and Sheiner 2003; Bahl, Strachan and Murphy 2004). The extent to which maternal choice relates to this phenomenon remains unclear. During the interviews, women talked about their reasons behind their decisions about becoming pregnant again or not. One woman found that reflecting on her experience a year after the event brought back painful memories. When asked what had gone through her mind when it came to thinking about having another baby she said:

(Sighs) Oh god, everything. [...] her first birthday was actually quite traumatic for me, because her being one reminded me what happened a year before. 'Cos I, I'd not thought about it much, you know [...] I was worried it was going to be like that every year to be honest. I know it sounds silly, and I don't dwell on things, but I did think, "ohh," you know [1227].

Another woman was adamant that her caesarean experience had not put her off having more children:

Oh, no, not at all. [...] I mean, it, I'd had a few. I had a few problems afterwards, because the, the wound got infected, and I wasn't able to drive for six weeks, so it was, it was a bit of an erm, it was a bit of a lonely old existence, because I couldn't actually get out anywhere. erm, but the, the experience of the section itself was fine [1343].

For one woman, the issue was not the actual surgery that she remembered as traumatic but being immobilised by tubes and machinery:

I didn't mind so much the actual, you know, all the epidural and, and the operation and things, but I really, really hated, erm, you know. sort of being plugged to equipment afterwards. I really didn't like that. But that's, that's the one thing that really stands out in my mind. And I think that would probably put me off having another one. It wouldn't put me off, but it would certainly be, be a real consideration [975].

Most women had very clear reasons why they had not had another baby and they were not related to their experience of emergency caesarean:

I would love another baby. But erm, my partner, he said, "well. cross that bridge when we come to it," so [...] the hope's there. If I fell pregnant then, you know, so be it. But I don't think he wants to, to plan it. [1382].

Now that I've actually got, gained some independence to go back to work, and not having to take them with me today, I don't want to be back at home looking after a baby. I don't enjoy being pregnant, and, I'm too old. I'm, I'm forty [544].

My husband would really really love another child, and erm yes, I, I would, I'm just also concerned that I'm nearly forty three [...] I wouldn't be able to do the job that I do. To do it to the level that I believe my job should be done. There would be a lot of compromise, and it wouldn't, wouldn't be fair to the child [775].

One woman, whose current boyfriend had had a vasectomy, reflected on her situation, coming to the conclusion that she did not want to go back to life with a small baby:

And probably if I'm really honest I don't think I'd want to go through it all again. Not just, not, not the birth, the I think children when they reach one are brilliant, they're absolutely stunning, but under that they (pause: 2 seconds) the work they are quite hard work [305].

It therefore appeared that, for most women, their experience of emergency caesarean *per se* did not put them off having more children. To explore this issue further, the questionnaire data were also examined. Of the 738 women who completed a follow up questionnaire, 20% (n=149) had had another baby since the index birth. There were 53 women who were currently pregnant and 39 who had lost a pregnancy. Excluding women who had a termination of pregnancy since 2000 (n=5: all had had spontaneous vaginal births), a chi squared test was undertaken between the variable 'become pregnant since the index birth' (FQ, page 8, B2) and mode of birth, stratified by parity. There were no significant differences between the groups.

A variable was created to identify women who had actually had a baby since 2000 and a chi squared test was undertaken using this variable and mode of birth, stratified by parity. The hypothesis that women who had an emergency caesarean birth would be less likely to have a subsequent birth was not supported, however the numbers were small. Table 6.1 presents the numbers of women who have had a baby since the Millennium by mode of birth and parity.

Table 6.1: 'Had a baby since 2000' by mode of index birth and parity

Mode of index birth	Had a baby since 2000?		
	No	Yes	Total
Primigravida			
Elective caesarean	16 (76%)	5 (24%)	21 (100%)
Emergency caesarean	37 (62%)	23 (38%)	60 (100%)
Instrumental birth	38 (58%)	28 (42%)	66 (100%)
Spontaneous birth	103 (69%)	46 (31%)	149 (100%)
Multigravida			
Elective caesarean	35 (95%)	2 (5%)	37 (100%)
Emergency caesarean	24 (89%)	3 (11%)	27 (100%)
Instrumental birth	20 (87%)	3 (13%)	23 (100%)
Spontaneous birth	316 (89%)	39 (11%)	355 (100%)

It had also been hypothesised that women who had an emergency caesarean but who had achieved a spontaneous vaginal birth before would be happier looking back on their experience than other women. Of the women who had an emergency caesarean birth in 2000, 69% (n=60) were primiparous. Of the 27 multiparous women, 15 had a previous spontaneous birth, 12 a previous instrumental birth, four a previous emergency caesarean and 2 a previous elective caesarean. There were no difference between previous mode of birth and how women felt looking back on their experience three years later.

In the follow up questionnaire (FQ, page 16, C37), women were asked, 'How did your Millennium birth experience influence how you felt about having more children'. Response options were: 'I decided definitely not to have any more children'; 'It made me less keen'; 'It did not make any

difference'; 'It made me more keen'; 'I looked forward to the next birth'; 'not applicable' and 'other'. Most women did not feel that the Millennium birth had made any difference (63% of primiparous women and 73% of multiparous women). Fifty-six women (8%) stated that their experience had made them decide definitely not to have any more children, of these seven were primiparous, none of whom had had an emergency caesarean (two had an instrumental birth and five were spontaneous vaginal births). Of the multiparous women who had been put off further childbirth the largest proportion had had an elective caesarean or instrumental birth.

To avoid the problem of small cell counts in further analysis, a new variable was created with three categories: 'less keen'; 'no difference' and 'more keen'. Of the primiparous women, 20% (n=55) were 'less keen' and of the multiparous women 18% (n=71) were 'less keen'. More primiparous women (18%, n=49) were 'more keen' to have more children following their experience than multiparous women (9%, n=36). However, primiparous women were more likely to have become pregnant since the Millennium birth than multiparous women (53% versus 16%, $p < 0.001$, $\chi^2 = 115.34$, $df = 1$).

Despite 56 women saying that their birth experience had put them off having any more children, this was rarely the answer given to the question, 'If you have decided not to have any more children, why is this?' for which a free text box was provided (FQ, page 8, B7). The responses were categorised and the majority of women (56%, n=219) felt that their family was complete, followed by a number of women (11%, n=41) who stated that they 'felt lucky or happy' with what they already had. Other reasons given were 'too old' (9%, n= 37); 'not enough money' (8%, n= 31); 'not enough time to give adequate attention to more children' (7%, n= 29); 'health problems' (4%, n= 17); 'birth related issues' (2%, n= 9); 'no partner' (1%, n= 5) and 'work commitments' (1%, n=3).

6.6.2 Preferred subsequent mode of birth

There is frequent commentary in the media and professional press that increasing numbers of women are requesting elective caesareans for no medical reason (for example: Singer 2004; Pollock 2004). This is not an issue under examination in this thesis, however, it was of interest how mode of birth might potentially influence future birth plans.

Attitudes to mode of birth vary between individual women:

And I think anybody who can face a normal delivery should go through it - 'cos I, it's not that bad. It's finished once it's finished, and that's the difference with a section, it hasn't, you, it can take such a long time to get over [747].

Some women view birth as a means to an end and do not strive to achieve a particular kind of experience or have specific expectations of how it should be:

I suppose I'm a very practical about things and I don't. I don't sort of think as long as it's, it's safe and (pause: 2 seconds) you don't sort of go through the mill [...] then I was just quite happy to sort of go through the ordinary I, I didn't want things like home births or, or pool birth or anything like that [...] I mean the end product's lovely, but the, the other part of it I'm not really interested, as long as it's over and done with really (laughs) from my, from my point of view. I mean, other people might want to go through something different, but for me it was just a case of get it over and done with, and you know, and have my son or daughter safe. So that's how I view it all [233].

I wasn't frightened about going into the theatre. I think it was this thing that you knew you had to, you was going to get your baby [...] Erm at the end of the day you just want your baby to be ok. So if that happens again then, then it does [433].

This sentiment was echoed by the following woman, who, although she would prefer a natural birth would not be fearful of future surgery. She felt that it was only a few days out of her life and that, looking at her child now, it was a sacrifice well worth making:

I certainly wouldn't be frightened of a section, it's just the emergency section bit that's going through your mind, 'my sort of, my baby, I need an emergency section, the baby can't be born properly.' That sort of makes you, you worry. But if I had to have a section for whatever reason, the baby was breech or, or whatever, then I'd be quite comfortable about it, as long as somebody explained the reasons why. But I wouldn't elect for a section, just to have a section for having a sections sake. I would still much prefer to go through the experience [775].

Another woman echoed a similar attitude:

It was traumatising at the time, but I just look at him, I mean, any time I feel down, if I feel upset I just look at him, it just changes things you know. And erm, (pause: 3 seconds) I don't regret it for one minute, at all [1382].

However, she did not want to risk going through another labour to end up with another emergency caesarean:

I mean, if I was to have another baby I would have an elective section because I know what to expect, I wouldn't want to go through that, that pain again, and erm, having complications and having to go through it again. I'd much prefer to know what, what to expect [...] I think it's quite traumatising in a way [1382].

For one woman, however, caesarean birth was not the panacea often portrayed and was she adamant that she would not go through it again:

I would never recommend it to anybody. Anybody who says it's an easy option, "Oh you had a caesarean because you're too posh to push or something", it's you know, it's, it's not. [544].

In the follow up questionnaire women were asked, 'If you were to have more children what would you ideally aim to do?' (FQ, page 16, C38). Response options were: 'I would prefer to have a normal birth in hospital'; 'I would prefer to have a planned caesarean'; 'I would prefer to have my next baby at home' and 'I'm not sure'. The following table (table 6.2) presents the answers to this question by mode of birth and parity.

Table 6.2: Preferred subsequent mode of birth by index mode of birth and parity

Mode of index birth	If you were to have more children, what would you ideally aim to do?				Total
	Normal birth in hospital	Planned caesarean	Home birth	Not sure	
Primigravida					
Elective caesarean	10 (48%)	5 (24%)	1 (5%)	5 (24%)	21 (100%)
Emergency caesarean	23 (43%)	16 (30%)	4 (7%)	11 (20%)	54 (100%)
Instrumental birth	47 (78%)	4 (7%)	3 (5%)	6 (10%)	60 (100%)
Spontaneous birth	110 (75%)	2 (1%)	21 (14%)	13 (9%)	146 (100%)
	190 (68%)	27 (10%)	29 (10%)	35 (13%)	281 (100%)
Multigravida					
Elective caesarean	6 (21%)	13 (45%)	0 (0%)	10 (35%)	29 (100%)
Emergency caesarean	12 (48%)	12 (48%)	1 (4%)	0 (0%)	25 (100%)
Instrumental birth	15 (65%)	3 (13%)	0 (0%)	5 (22%)	23 (100%)
Spontaneous birth	264 (79%)	5 (2%)	50 (15%)	14 (4%)	333 (100%)
	297 (72%)	33 (8%)	51 (12%)	29 (7%)	410 (100%)

It can be seen that women's hopes for the future were very much shaped by their previous experiences. This was particularly so for multiparous women of whom only 7% were 'unsure' compared with 13% of primiparous women. Women who had a spontaneous vaginal birth in 2000 were very unlikely to hope for an elective caesarean in the future (1-2%). The women who were most likely to aim for an elective caesarean were multiparous women who had experienced either an elective or emergency caesarean in the past.

6.6.3 Actual subsequent mode of birth

For women who experience a traumatic birth, the fear of having another baby is mediated by the knowledge that they can arrange for the next birth to be an elective caesarean. For example one woman asked her obstetrician for an elective caesarean following her previous experience:

Because of my experience with having [baby], and then my postnatal depression where I suffered from panic attacks and wouldn't leave the house for four months, I was too frightened. Erm, they put that all down to the experience of having a traumatic birth, and said they were quite happy for us to have an elective caesarean [1057].

One woman who had an emergency caesarean after a failed forceps delivery and had a very sick baby, recalled contemplating having another baby with fear. She decided to have an elective caesarean with her next baby, but was repeatedly confronted with staff who tried to get her to change her plan:

They asked me, I felt they were like questioning my decision (laughs), not giving me the option to change my mind [...] And I know a lot of it was in my head, but why not protect yourself emotionally? (laughs) [337].

Achieving a natural birth subsequently, however, was a real boost for one woman who was determined to have a natural birth after having had an emergency caesarean, despite lack of encouragement from family and professionals:

I just felt really proud of myself that I'd done it. And so many people kept telling me, 'go for the caesarean'. And I just didn't really want to. And even (pause: 2 seconds) even when they came in with my notes when I was in the maternity ward with [subsequent baby] and they said things like, 'oh, you know, can't believe you've done it again after looking at your first' [...] 'well, you know, if you want a caesarean just tell us as soon as you can' [...] so I suppose in a way they were asking me because they knew what I'd been through before and they saw it as an easy option. But I didn't. I saw it as the, the very last resort [...] I wanted to do it properly, properly, what I see as properly. And I wanted to do it the way that it should be really [1227].

Another woman wanted to have a natural birth because she did not want to be separated from her Millennium baby by a long hospital stay:

I decided that I didn't want a caesarean because I would be in hospital five days, and I decided to try and go for normal delivery, so I could be home either within six hours, or out the next day [1412]

Women who had had another baby since 2000 were able to compare their experiences. One woman recounted her subsequent, planned caesarean:

The music was on, everyone was laughing, it was so relaxed compared to the first experience. But I kept think, I kept, I think I, at the time it was happening I was re-living the first experience, and I was getting quite upset, do you know what I mean? And when he came out and cried, and when I heard him cry and I felt so relieved, but I found it upsetting because I just remembered what happened to me before [337].

Another woman compared her experience of emergency caesarean with her subsequent instrumental birth:

But yeah, just such a different experience (pause: 2 seconds). And I don't know whether (pause: 3 seconds) I don't know whether I'm, I'm probably being unfair being too negative about the staff. Probably the bad experience was because it happened to be an emergency caesarean full stop, not just because of the negative feelings I got from the midwives. I mean, it was a better experience because it wasn't a caesarean I suppose, you know. But I just felt that the staff were nicer this time. I don't know (pause: 2 seconds) I don't know [1412].

One woman was asked if having had another baby had made a difference to how she felt now. She said:

(pause: 4 seconds) I suppose it's strengthened the things that, some of the things that I felt bad about the fact that it was an emergency, when I can see the fact that how differently it can feel when it's planned, when maybe they treat you a bit differently, erm, straight after the birth. Erm (pause: 3 seconds) so I suppose having, having the recent experience of a caesarean and certain bits of it being a lot better it's, yeah, it has made me feel more-so, 'well, why couldn't they have done that that time [1375].

The questionnaire data enabled subsequent mode of birth to be explored in the light of the mode of index birth and these data are presented in table 6.3.

Table 6.3: Subsequent mode of birth by mode of index birth

Mode of index birth	Subsequent mode of birth				
	Elective caesarean	Emergency caesarean	Instrumental birth	Spontaneous birth	Total
Primigravida					
Elective caesarean	1 (17%)	2 (33%)	1 (17%)	2 (33%)	6 (100%)
Emergency caesarean	14 (61%)	4 (17%)	4 (17%)	1 (4%)	23 (100%)
Instrumental birth	1 (4%)	3 (11%)	2 (7%)	22 (79%)	28 (100%)
Spontaneous birth	2 (4%)	1 (2%)	0 (0%)	44 (94%)	47 (100%)
Multigravida					
Elective caesarean	1 (50%)	0 (0%)	0 (0%)	1 (50%)	2 (100%)
Emergency caesarean	2 (67%)	1 (33%)	0 (0%)	0 (0%)	3 (100%)
Instrumental birth	1 (25%)	0 (0%)	2 (50%)	1 (25%)	4 (100%)
Spontaneous birth	0 (0%)	0 (0%)	1 (3%)	39 (97%)	40 (100%)

It can be seen that most women who had an emergency caesarean in 2000 went on to have an elective caesarean for their next baby. Indeed, only one woman had a spontaneous vaginal birth, within the three years since her emergency caesarean birth. Of the women who had a spontaneous birth in 2000, 94% (n=44) of primiparous and 97% (n=39) of multiparous women had a subsequent spontaneous birth. The incidence of miscarriage appeared relatively higher amongst women who had an emergency caesarean (n= 10, 11%) compared to women who had had an elective caesarean (n=0), instrumental birth (n=2, 2%) or a spontaneous vaginal birth (n=22, 4%) however the numbers were too small for statistical analysis.

6.6.4 Influence of mother's birth stories

One of my initial interests was how women's birth stories influenced their daughters as they contemplated their own experiences of birth. Many of the women who were interviewed either had not discussed their mother's birth experience, or they had but the story had not been of any significance to them. Most mothers had spared their daughters from any difficult details:

To be honest, she's never really talked a lot about it, erm, but she. she's certainly never given me any horror stories or anything. Erm, but from, yes. she. she has. she did have positive experiences [975].

Having had previous births of her own, one woman dismissed her own mother's difficult labour as irrelevant to her:

I knew some of it, because I was born breech [...] and I knew that, erm, obviously how awful it was for her 'cos she was on her own [...] so I knew all about that [...] But then, I mean by [baby] it was my third baby, so I'd been there done that (laughs) [569].

Only one woman talked about the possible influence of her own mother's birth stories:

She said it just, the pain got so bad, and the midwife was shout, shouting, "push", and she just shouted, "I want to die". I think she was tired, she'd been pushing for a long time. Erm, so maybe that's why I've got it stuck in my head, it's gonna really hurt, I don't know? [400].

In the follow up questionnaire, women were asked if they knew how they were born (FQ page 25 E16). Seven percent of women were unsure, 80% were born by 'normal birth', 7% by forceps, 3% by elective caesarean and 3% by emergency caesarean. Only 62% of mothers had discussed their birth stories with their daughters before they had children. Of those daughters who had heard their mother's experiences, 34% thought they would be similar, 30% said they did not think about it and 36% said it made no difference to how they felt about what might happen to them. Only two women chose the option, 'I dreaded the thought'. There were interesting differences between mode of own birth and mode of index birth with 67% of the woman who had an emergency caesarean birth for their Millennium baby being born by 'normal birth' compared with 83% of those who had a spontaneous vaginal birth in 2000. Small cell size for some of the categories however precluded meaningful statistical analysis.

6.6.5 In summary

There are many reasons that contribute to whether or not women go on to have another baby after an emergency caesarean birth, including age, job prospects, attitude of the partner, children from other relationships, health and personal attitudes. Emergency caesarean itself is rarely cited as an inhibitory factor. Thus, women in this study who had an emergency caesarean in 2000 were not less likely to go on to have a subsequent baby than other women. They were influenced by their previous mode of birth when asked to contemplate how they might wish their next baby to be born.

There is a range of factors that influence women's subsequent mode of birth. The women in this study did not feel influenced by their own mother's experience of childbirth.

6.7 Summary of chapter

Women who experienced emergency caesarean birth had a different experience of postnatal care than other women, often staying in hospital for longer and in a room of their own. They were more likely to require help with baby care but found difficulty in obtaining it. Mode of birth did not influence the initiation of breastfeeding for primiparous women: multiparous women anticipating an elective caesarean were however less likely to breastfeed. Mode of birth did not influence the duration of breastfeeding. Women who had an emergency caesarean were just as likely to enjoy a positive relationship with their baby, as long as they experienced close contact with their baby at birth.

Women who experienced an emergency caesarean birth were significantly more likely to have an unsatisfactory or unfulfilling experience than other women, but were not more likely to suffer from postnatal depression or a lower self esteem. They were not less likely to have a subsequent baby by choice but were more likely to have an elective caesarean for their next baby than other women. Analysis of both quantitative and qualitative data has therefore provided valuable insights into the psychosocial sequelae of emergency caesarean birth.

The next chapter explores women's perception of their intrapartum carers and looks at how those perceptions changed over time.

CHAPTER 7: Women's perceptions of the staff

7.1 Introduction

The focus of this chapter is on how women who had an emergency caesarean birth perceived their carers. The chapter begins by presenting such perceptions, *staff adjectives*, in relation to those of women who experienced other modes of birth and how they changed over time, in order to consider the data from women who had an emergency caesarean in context. How women perceive their carer will be influenced by how they perceive their care. Hence this chapter presents data that pertain to both how care was given and how staff were described from both the questionnaires and the interviews. Only data that relate to the index birth and to intrapartum care, are presented. Analysis of these data gave rise to the development of a conceptual model for the provision of maternity care, 'intelligent guardianship', and this model is described in section 7.4 and summarised in figures 7.2 and 7.3.

7.2 Staff adjectives

In the follow-up questionnaire women were asked to select adjectives (from a list of 15) that described any of the staff who they saw during the birth (FQ page 14 C29). Responses were coded 'yes' if selected and 'no' if not. In general, positive words were chosen more frequently than negative ones, with the exception of *humorous* which was only selected by 45% of women (see figure 7.1).

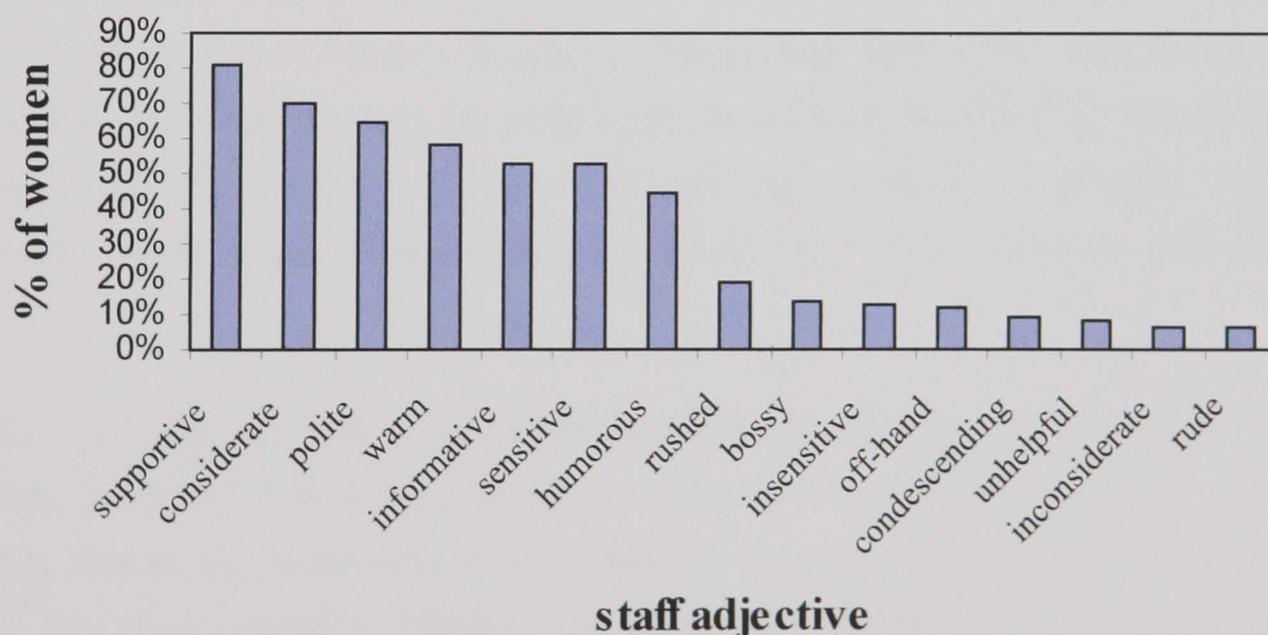


Figure 7.1 Staff adjectives chosen by women in 2003

Despite women's tendency to be positive about the staff, it is of concern that more women did not perceive the staff as sensitive (53%) or informative (53%). Whilst virtually all women having a baby in the UK are looked after by a midwife, the question asked the woman to consider 'staff' and responses will also include perception of the multi-professional team including health care assistants, students, doctors and anaesthetists.

7.2.1 Staff adjectives by mode of birth

When univariate analysis was undertaken of each adjective by mode of birth there were some significant differences (table 7.1). There were no significant differences, however, for mode of birth and the adjectives rushed, supportive, rude, humorous, sensitive, off-hand, considerate or polite. Women who had an emergency caesarean generally selected the highest percentage of negative staff adjectives and women who had a spontaneous vaginal birth selected the lowest. The pattern for women who had an elective caesarean or instrumental birth was not consistent although the latter group were frequently the least likely to choose positive words.

Only two 'positive' adjectives were significantly different by mode of birth; 'informative' and 'warm'. Women who had an emergency caesarean birth were more likely to perceive their carers as *informative* (66%) compared with women who had a spontaneous birth (48%). It seems that staff were more likely to be informative in situations that unexpectedly changed course, as women who had an instrumental birth were also more likely to perceive the staff as informative (64%).

Women who had an instrumental birth were less likely to remember the staff as *warm* (43%) compared with other modes of birth (60-62%). It is likely that lack of warmth results from the distance that is created during a forceps or instrumental birth as the midwife who was once supporting the woman transfers her attention to the needs of the attending obstetrician. Lack of warmth could also be perceived due to the increased bossiness of attending staff during a prolonged second stage of labour, repeated instructions to 'push' and subsequent instrumental birth.

Caring for women who have an emergency caesarean appears to bring out sensitivity in some staff and insensitivity in others as these options were each more likely to be chosen by women requiring surgical intervention. When analysis was limited to emergency caesarean and spontaneous vaginal births, the positive adjective 'sensitive' was significantly different ($p=0.009$) with 65% of women who had surgery choosing this word compared with 51% of those who did not. Sensitivity to a woman's needs may be a result of caring for someone throughout a long and difficult labour. Conversely, insensitivity could be more likely to come from staff who walk into the situation as newcomers and had not yet tuned in to the woman's individual circumstances.

Table 7.1: Staff adjectives chosen three years after birth by mode of birth

	Elective caesarean	Emergency caesarean	Instrumental birth	Spontaneous vaginal birth	Total	P value
Rushed	11 (19%)	20 (23%)	19 (21%)	88 (18%)	138 (19%)	0.57
Unhelpful	5 (9%)	14 (16%)	11 (12%)	30 (6%)	60 (8%)	0.005
Supportive	48 (83%)	64 (74%)	68 (76%)	418 (83%)	598 (81%)	0.13
Rude	4 (7%)	8 (9%)	9 (10%)	24 (5%)	45 (6%)	0.13
Informative	31 (53%)	57 (66%)	57 (64%)	243 (48%)	388 (53%)	0.002
Humorous	34 (57%)	40 (47%)	38 (43%)	217 (43%)	329 (45%)	0.16
Sensitive	32 (55%)	56 (65%)	44 (49%)	255 (51%)	387 (53%)	0.09
Off-hand	7 (12%)	17 (20%)	12 (14%)	53 (11%)	89 (12%)	0.11
Warm	36 (62%)	52 (60%)	38 (43%)	299 (60%)	425 (58%)	0.02
Bossy	6 (6%)	18 (21%)	25 (28%)	56 (11%)	105 (14%)	0.000
Insensitive	10 (17%)	20 (23%)	14 (16%)	49 (10%)	93 (13%)	0.002
Considerate	43 (74%)	62 (72%)	58 (65%)	354 (71%)	517 (70%)	0.64
Polite	34 (59%)	58 (67%)	57 (64%)	332 (66%)	481 (65%)	0.67
Inconsiderate	5 (9%)	10 (12%)	8 (9%)	23 (7%)	46 (6%)	0.04
Condescending	4 (7%)	15 (17%)	10 (11%)	38 (8%)	67 (9%)	0.02

Of the 'negative' adjectives that were significantly different by mode of birth, 'unhelpful', 'insensitive', 'inconsiderate' and 'condescending' were all more likely to be chosen by women who had an emergency caesarean birth. Women who had an instrumental birth were more likely to perceive the staff as 'bossy' than other women.

Some of the differences between women who had an emergency caesarean and other modes of birth in their perception of carers may be influenced by the fact that women who required assistance will have come into contact with more staff, in terms of both numbers and range of disciplines. They are also more likely to come into contact with staff they had not had time to develop a relationship with and who were not conversant with their particular hopes and fears. Such staff, particularly during an emergency situation, could also be stressed and be focused on their own emotions rather than those of the woman.

7.2.2 Staff adjectives over time

When univariate analysis was undertaken for staff adjectives in 2000 by staff adjectives in 2003, it was observed that women had become more critical of the staff in the intervening three years. Similarly, fewer women had chosen positive adjectives in 2003, with the exception of 'polite', which was chosen more often in 2003. The responses to the staff adjectives in 2000 and 2003 are presented in tables 7.2 to 7.16 (negative adjectives 7.2-7.9 and positive adjectives 7.10-7.16).

7.2.2.1 Negative adjectives

Table 7.2: Percentage of women who chose adjective 'rushed' in 2000 and 2003.

			Rushed 2003		Total
			No	Yes	
Rushed 2000	No	Count	562	99	661
		% of total	76.8%	13.5%	90.3%
	Yes	Count	32	39	71
		% of total	4.4%	5.3%	9.7%
Total		Count	594	138	732
		% of total	81.1%	18.9%	100.0%

Table 7.3: Percentage of women who chose adjective 'unhelpful' in 2000 and 2003.

			Unhelpful 2003		Total
			No	Yes	
Unhelpful 2000	No	Count	650	44	694
		% of total	88.8%	6.0%	94.8%
	Yes	Count	23	15	38
		% of total	3.1%	2.0%	5.2%
Total		Count	673	59	732
		% of total	91.9%	8.1%	100%

Table 7.4: Percentage of women who chose adjective 'rude' in 2000 and 2003.

			Rude 2003		Total
			No	Yes	
Rude 2000	No	Count	672	35	707
		% of total	91.8%	4.8%	96.6%
	Yes	Count	15	10	25
		% of total	2.0%	1.4%	3.4%
Total		Count	687	45	732
		% of total	93.3%	6.1%	100.0%

Table 7.5: Percentage of women who chose adjective 'off-hand' in 2000 and 2003.

			Off-hand 2003		Total
			No	Yes	
Off-hand 2000	No	Count	618	56	674
		% of total	84.5%	7.7%	92.2%
	Yes	Count	24	33	57
		% of total	3.3%	4.5%	7.8%
Total		Count	642	89	732
		% of total	87.8%	12.2%	100.0%

Table 7.6: Percentage of women who chose adjective 'bossy' in 2000 and 2003.

			Bossy 2003		Total
			No	Yes	
Bossy 2000	No	Count	595	63	658
		% of total	81.3%	8.6%	89.9%
	Yes	Count	32	42	74
		% of total	4.4%	5.7%	10.1%
Total		Count	627	105	732
		% of total	85.7%	14.3%	100.0%

Table 7.7: Percentage of women who chose adjective 'insensitive' in 2000 and 2003.

			Insensitive 2003		Total
			No	Yes	
Insensitive 2000	No	Count	623	67	690
		% of total	85.1%	9.2%	94.3%
	Yes	Count	16	26	42
		% of total	2.2%	3.6%	5.7%
Total		Count	639	93	732
		% of total	87.3%	12.7%	100.0%

Table 7.8: Percentage of women who chose adjective 'inconsiderate' in 2000 and 2003.

			Inconsiderate 2003		Total
			No	Yes	
Inconsiderate 2000	No	Count	671	34	705
		% of total	91.8%	4.7%	96.4%
	Yes	Count	14	12	26
		% of total	1.9%	1.6%	3.6%
Total		Count	685	46	731
		% of total	93.7%	6.3%	100.0%

Table 7.9: Percentage of women who chose adjective 'condescending' in 2000 and 2003.

			Condescending 2003		Total
			No	Yes	
Condescending 2000	No	Count	646	43	689
		% of total	88.3%	5.9%	94.1%
	Yes	Count	19	24	43
		% of total	2.6%	3.3%	5.9%
Total		Count	665	67	732
		% of total	90.8%	9.2%	100.0%

7.2.2.2 Positive staff adjectives

Table 7.10: Percentage of women who chose adjective 'supportive' in 2000 and 2003.

			Supportive 2003		Total
			No	Yes	
Supportive 2000	No	Count	43	46	89
		% of total	5.9%	6.3%	12.2%
	Yes	Count	93	550	643
		% of total	12.7%	75.1%	87.8%
Total		Count	136	596	732
		% of total	18.6%	81.4%	100.0%

Table 7.11: Percentage of women who chose adjective 'informative' in 2000 and 2003.

			Informative 2003		Total
			No	Yes	
Informative 2000	No	Count	155	81	236
		% of total	21.2%	11.1%	32.2%
	Yes	Count	190	306	496
		% of total	26.0%	41.8%	67.8%
Total		Count	345	387	732
		% of total	47.1%	52.9%	100.0%

Table 7.12: Percentage of women who chose adjective 'humorous' in 2000 and 2003.

			Humorous 2003		Total
			No	Yes	
Humorous 2000	No	Count	260	90	350
		% of total	35.5%	12.3%	47.8%
	Yes	Count	144	238	382
		% of total	19.7%	32.5%	52.2%
Total		Count	404	328	732
		% of total	55.2%	44.8%	100.0%

Table 7.13: Percentage of women who chose adjective 'sensitive' in 2000 and 2003.

			Sensitive 2003		Total
			No	Yes	
Sensitive 2000	No	Count	176	97	273
		% of total	24.0%	13.3%	37.3%
	Yes	Count	170	289	459
		% of total	23.3%	39.5%	62.7%
Total		Count	346	386	732
		% of total	47.3%	52.7%	100.0%

Table 7.14: Percentage of women who chose adjective 'warm' in 2000 and 2003.

			Warm 2003		Total
			No	Yes	
Warm 2000	No	Count	148	77	225
		% of total	20.2%	10.5%	30.7%
	Yes	Count	161	346	507
		% of total	22.0%	47.3%	69.3%
Total		Count	309	423	732
		% of total	42.2%	57.8%	100.0%

Table 7.15: Percentage of women who chose adjective 'considerate' in 2000 and 2003.

			Considerate 2003		Total
			No	Yes	
Considerate 2000	No	Count	93	92	185
		% of total	12.7%	12.6%	25.3%
	Yes	Count	124	423	547
		% of total	16.9%	57.8%	74.7%
Total		Count	217	515	732
		% of total	29.6%	70.4%	100.0%

Table 7.16: Percentage of women who chose adjective 'polite' in 2000 and 2003

			Polite 2003		Total
			No	Yes	
Polite 2000	No	Count	148	129	277
		% of total	20.2%	17.6%	37.8%
	Yes	Count	105	350	455
		% of total	14.3%	47.8%	62.2%
Total		Count	253	479	732
		% of total	34.6%	65.4%	100.0%

To assess patterns in how women perceived the staff over time, a new variable was created for each adjective, with the following categories: 'no, neither 2000 or 2003'; 'yes in 2000, no in 2003'; 'no in 2000, yes in 2003' and 'yes, in both 2000 and 2003'. Univariate analysis was undertaken for each new variable by mode of birth, using chi-square. Small cell sizes, however, precluded meaningful interpretation of these results, other than confirming the pattern that women became more negative over time.

Another strategy was pursued, and further variables were computed of the ratio of negative words chosen in 2000 and 2003 respectively. Univariate analysis was undertaken for these new variables by mode of birth, using chi-square, revealing significant differences. The following table (table 7.17) shows the proportion of women *not* choosing any negative words to describe their carers, by mode of birth.

Table 7.17: Only positive staff adjectives chosen by mode of birth in 2000 and 2003

	No negative staff adjectives chosen	
	2000	2003
Planned caesarean	32 (57%)	38 (66%)
Emergency caesarean	54 (64%)	45 (52%)
Instrumental birth	65 (74%)	39 (44%)
Spontaneous vaginal birth	385 (77%)	324 (65%)

In 2000, women who had a spontaneous vaginal birth were the most likely to have selected only positive words (77%) and women who had an elective caesarean the least likely (57%). In 2003, however, women who had an instrumental birth were the least likely not to choose any negative

words (44%) and those who had an elective caesarean were the most likely (66%). For all modes of birth, 73% of women in 2000 did not choose any negative words compared with 61% in 2003.

In summary, women were more likely to choose positive adjectives than negative ones to describe the staff who cared for them around the time of the birth when asked three years later. Overall, descriptions of the staff three years later were more negative than those six weeks after the birth, except for women who had an elective caesarean birth. There were significant differences between individual adjectives chosen and mode of birth, with women who had an emergency caesarean being most likely to perceive the staff negatively compared with women who had other modes of birth. The remainder of this chapter focuses specifically on the perceptions of women who had an emergency caesarean birth.

7.3 Focusing on women who had an emergency caesarean birth

This section begins with the results of questionnaire data analysis pertaining to perceptions of the staff and concludes with results from interviews conducted four years after the index birth.

Women were asked two questions which asked them to identify helpful and unhelpful staff behaviour during their intrapartum care (FQ page 15):

Q C34 Can you think of anything that any of the staff did or said during the time around the birth, that helped you feel safe?

Q C35 Can you think of anything that any of the staff did or said during the time around the birth, that caused you concern?

A small box was provided for each free text responses hence responses were usually confined to one point.

7.3.1 Staff behaviour that helped women feel safe

Of the 87 women who had an emergency caesarean, 16 responded by writing 'no' in the box provided and 31 left the space blank. Many staff behaviours were identified as those that helped the remaining 40 women feel safe and these are summarised in the following section.

7.3.1.1 Reassurance

This was the most frequent staff behaviour identified that helped women feel safe. It was difficult to decipher what aspect of care contributed to this reassurance and was often a confirmation that something the staff did or said helped them feel safe. Reassurance was often unqualified, for example, 'they were all quite reassuring' [305]. For some women, reassurance was associated with other qualities, for example; 'relaxed and reassuring manner' [302] or behaviours, for example,

'holding my hand and reassuring me' [342]. Reassurance also took a 'don't worry' approach by midwives who made rather general statements, for example, 'it will be over soon' [556] and 'it will be alright' [607].

7.3.1.2 Physical contact

Women reported that having their hand held was comforting, particularly during clinical procedures; 'one midwife talked and held my hand all the time I was being prepared for the caesarean, which helped a lot' [001]. Holding a woman's hand conveyed that the midwife was there just for her:

One of the midwives held my hand when the pain was bad and talked me through it. My partner had been sent home as they didn't think anything would happen that night [433].

Physical contact also took other forms, for example massage, 'staff helped rub my back during my contractions before the epidural' [785].

7.3.1.3 Talked to

Just talking to women during labour helped them feel safe, 'talked to me about a wedding she was going to' [975]. Women also described being talked to whilst having their hand held at a difficult moment during labour [001, 433]. Many women found constant explanation of 'everything' helpful, 'talked through everything that was happening' [281]. Specific, individual explanations were also valued, 'read through my birth plan and discussed it with me and told me why things might have to change' [785]. It was important for women to get feedback about their progress in labour and that the purpose and procedure of all aspects of care were explained, 'they kept reassuring me and always explaining what or how they were going to do something' [1078]. Only one woman commented how the staff helped her feel safe 'by not telling me too much' [1296].

7.3.1.4 Calm and relaxed

Some women commented on how the relaxed attitude of the staff contributed to their feelings of safety. Humour also contributed to keeping the atmosphere relaxed, 'everyone stayed calm and smiling, telling me jokes and making me laugh' [400]. Calmness was conveyed without words, 'calm, confident manner' [1227]. One woman appreciated the calm presence of the anaesthetist during her caesarean:

Relaxed and reassuring manner of the woman (anaesthetist) at my head during the caesarean – everyone else seemed too panicked and serious to reassure me [302].

7.3.1.5 Continuity of carer

Continuity was experienced in different ways, either being cared for by the same midwife throughout the labour or being cared for by a midwife they had already met. One woman identified the continuity of carer she experienced as contributing to her feeling safe, 'the midwife said she would come to theatre with me' [736] and another was cared for by a midwife she had met at her antenatal classes, although she had to leave 'half way' [732].

7.3.1.6 Competence

Confidence was instilled by midwives through the manner in which they cared for women. 'the midwife made me feel I was in safe hands' [466]. Safety was also associated with having expert medical staff involved in their care, for example, 'when the doctor said a section was essential the nurse with me said 'don't worry love, it'll be over soon and the doctor sewing you up is one of the best' [775]. Recognising that a problem had arisen and acting quickly was perceived as contributing to the security a woman felt, 'got a doctor, acted quickly and monitored me carefully' [830].

7.3.2 Staff behaviour that caused women concern

Of the 87 women who had an emergency caesarean, 18 responded by writing 'no' in the box provided and 30 left the space blank. One woman astutely noted that it was not necessarily what staff did or said but their omissions that caused concern, 'nothing they said but they failed to reassure me on several occasions' [609]. The following section reports staff behaviours that caused the remaining 39 women concern.

7.3.2.1 Staff insensitivity

This took many forms, including being talked about as if they were not in the room, 'after checking my baby's heart rate instead of telling me, spoke to the Dr, then quite a delay in the doctor telling me the result' [395]. Some midwives even had a bet on what time the woman would end up in theatre [1005]. Some of the activities were clearly inappropriate practice for staff caring for women in labour when painful uterine contractions occur at regular intervals and often during the night, 'asking me questions during contractions was very difficult for me to answer sensibly' [898]. One member of staff showed disregard for the woman's feelings:

The woman Dr who did my epidural was annoyed at being woken up. (she) was very intimidating saying 'couldn't it have waited until morning?'. When I felt sick, she shoved the oxygen mask over me and told me I wasn't going to die and to 'calm down and breathe' [253].

7.3.2.2 *Lack of information*

For some women the need to have more information about what was happening to them was a source of concern, 'midwife very uninformative and not at all supportive' [347]. For one woman, being informed of the realities of the situation was alarming and her response to this question was, 'just when they told me the facts' [425].

7.3.2.3 *Being left alone*

Being without the physical presence of a midwife was also raised as an issue that invoked concern, 'we were left on our own a lot. It being our first baby it was very daunting' [1412]. Being left alone was also an issue for women who were labouring without the presence of a birth partner, 'initially when I went into labour, the night staff did not check me and I had to go and ask them' [307].

7.3.2.4 *Incompetence*

Some women found that the behaviour of the staff led them to lose confidence in the staff's competence;

Dr wanted me to have a natural birth. The midwife was so concerned she advised her supervisor and the consultant was called. Within a short time I had an emergency caesarean section as the baby was in distress [696].

7.3.2.5 *Urgency of the situation*

That staff were rushing about conveyed concern for many women 'it's not what they said it was all the rushing around and no-one saying anything' [302]. Another woman who had a placental abruption recalled:

I was aware of what was happening. Everyone seemed shocked. I remember the registrar knocking on the side ward door shouting everyone to hurry up, time was of the essence [720].

Also when staff were worried about the situation this was picked up by the woman, 'they were all worried about the fact that my blood pressure crashed' [305]. Concern was also generated, not only by what staff were doing, but by their presence, 'when the room is full of midwives and doctors you know things aren't going well' [536].

Although there is evidence that some women feel unsupported when being prepared for emergency caesarean (Hillan 1992d) there is no research which focuses on the demeanour of the staff at this time. The follow-up questionnaire asked women how they would describe the staff who prepared

them for theatre; relaxed, tense or otherwise (FQ page 12 C21). Most women (70%) felt that the staff were relaxed, 20% described them as 'rather tense' and 10% could not perceive their level of anxiety.

It might be hypothesised that the staff who were tense would be more likely to be caring for women who were having a general anaesthetic or whose baby was distressed, than for other women being prepared for theatre, but this was not the case. Tense staff were, however, less likely to explain what they were doing than staff who were described as relaxed; of those who were relaxed 78% gave explanations throughout compared with 47% of those who were tense ($p=0.01$, $\chi^2=12.61$, $df=4$). Whether this is because they are feeling tense or whether staff who do not provide explanations were perceived as tense by the women is unclear. Women were asked to say in their own words how they felt whilst they were being prepared for theatre and these statements were grouped in five categories: very positive, positive, negative, very negative and mixed. Of those who were cared for by staff who were tense, 56% gave 'very negative' comments compared with 22% of those cared for by staff who were perceived as relaxed. If women's feelings were influenced by the anxiety levels of the staff, this does not appear to have been long lasting. There was no significant association between how the staff were described at this time and how women felt looking back on their birth experience three years later.

A potential comfort to women who are about to go into theatre is reassurance that the midwife who has been caring for them during labour will be with them, thus providing a familiar face in an alien environment. Overall 61% of women having an emergency caesarean thought that they were accompanied by the midwife who had been with them during labour, however 26% were not sure. There was a trend for women having general anaesthesia to be less likely to be accompanied by the same midwife compared with women who had regional anaesthesia. Of the women who had a general anaesthetic 41% (7/17) were accompanied by the labour midwife compared with 65% (45/69) of those who had a regional anaesthetic.

7.3.2.6 Summary

Women were reassured by staff who appeared calm and competent and who maintained a physical presence during labour. Verbal communication was valued whether it was to explain a clinical procedure, discuss progress or to create a friendly atmosphere. Staff gave women cause for concern when they performed clinical tasks in a rushed manner or when they were insensitive to their individuality. Also concern was raised when women were left alone, not provided with enough information or cared for by staff who appeared to lack clinical competence.

When women were being prepared for theatre, the majority described the staff as relaxed. Staff who were perceived as tense were least likely to explain what they were doing, and women who were cared for by such staff were more likely to provide negative comments regarding how they felt at that time. Most women were accompanied into theatre by their labour midwife, but this was less likely when a general anesthetic was administered.

7.4 Interview data

Analysis of questions C34 and C35 (FQ page 15), whilst revealing key aspects of intrapartum care, did not provide clear understanding of what staff actually did that made a difference to women. Statements such as 'they were reassuring' did not enable me to identify behaviour that could be replicated. Conducting in-depth interviews did however create an opportunity for me to explore general statements and describe the essence of both effective and unhelpful care during childbirth. Analysis of the interview data revealed three inter-related themes; perceived competence, engagement with women and demeanour and each contributes to a sense of trust in the staff, or lack of it. The core category was identified and named 'intelligent guardianship'. Figure 7.2 provides diagrammatic representation of how the themes were developed and how the core category 'intelligent guardianship' was developed.

7.4.1 Naming the core category: 'intelligent guardianship'

Many of the activities that women described positively involved the staff engaging with them in a way that demonstrated they were 'cared' for. Indeed 'caring' was considered as a potential core category during the process of analysis. Caring is a complex concept and can be used as a verb, an adjective and a noun. It is expected that labouring women will be cared for during labour in that they will be looked after but the management of this care could potentially serve the interests of the staff or organisation rather than those of the woman. Usually the staff and the woman have common interests, such as the safe birth of a healthy baby, but this end could be achieved without compassion and engagement. It became clear from the analysis that women valued staff activities that demonstrated that she and her baby were their primary focus and that they were truly 'with woman'.

Although women wanted to be cared for, they did not expect staff to be heavenly beings. They wanted someone they could trust and ultimately this was described as someone who they felt knew what they were doing and in whom they had confidence. They wanted to be kept informed of decisions but were generally content to allow staff to do what they thought was best because they were the experts.

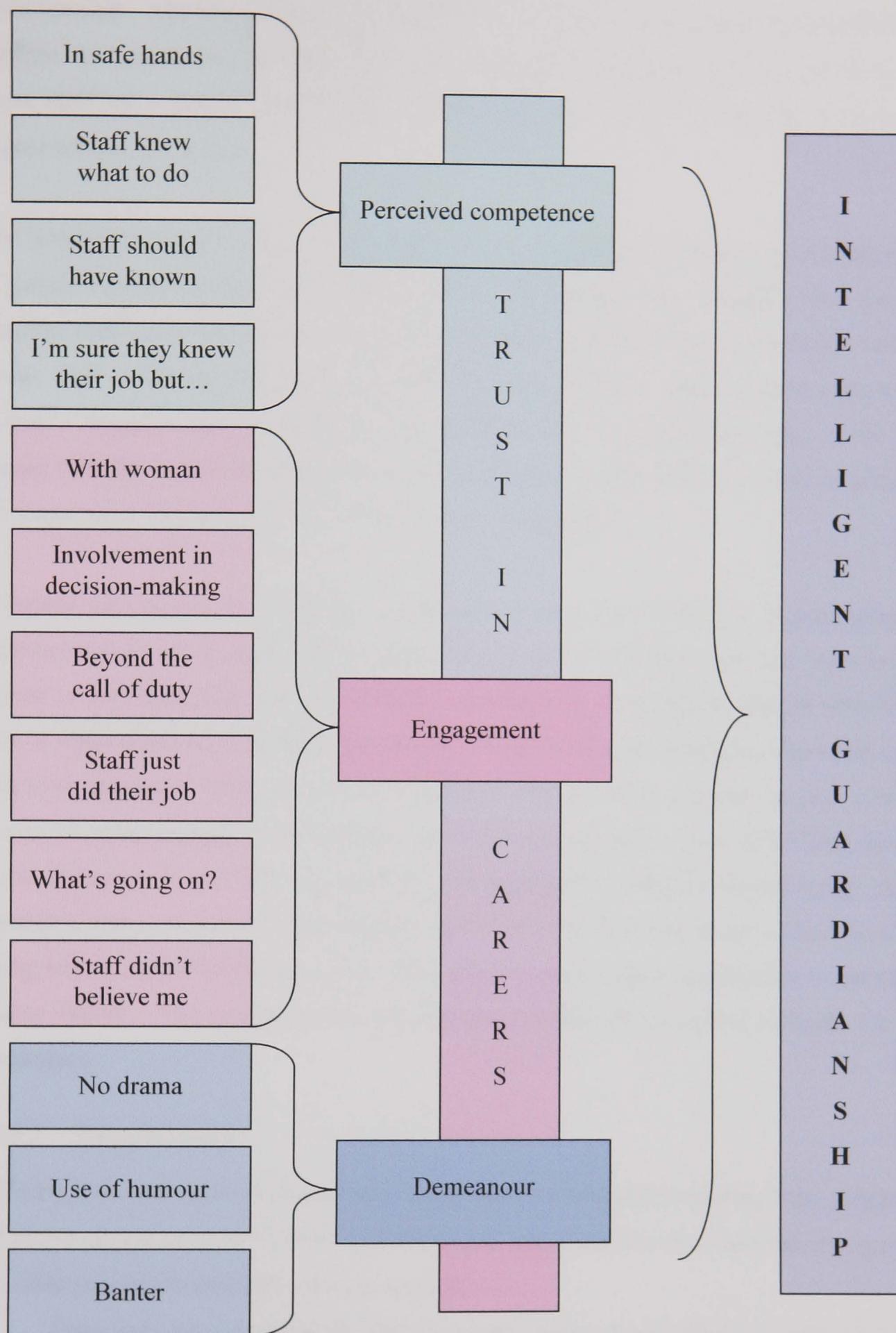


Figure 7.2: Diagrammatic representation of the development of the core category 'intelligent guardianship'

The term which captured the essence of the relationship which women aspired to was 'guardianship' whereby another, appropriately equipped, person took responsibility for their welfare. As 'guardians', the staff acted in her best interest and were there for her when she needed them. Staff had a duty of care and this was shown by their actions. A guardian is not someone you expect will let you down.

The 'intelligent' aspect of the core category refers to the ability of staff to act intelligently and also to gather and use intelligence (information) to personalise care. Women were most likely to describe staff positively when staff used both their emotional and professional intelligence to assess their wellbeing. Thus they should have the ability to apply clinical knowledge to the woman's unique situation and work with competence to maintain her trust. Staff should also engage with the woman to identify her individual hopes and fears for the birth; care that involved the woman as a 'key player' was perceived more favourably.

Midwives carried out the majority of intrapartum care, but *intelligent guardianship* could be demonstrated by all members of the team, irrespective of whether they had previously met the woman or how long they had cared for her. For example, obstetric anaesthetists who only met the woman when it had been decided that she required an emergency caesarean were able to instill her with trust, through a calm and jovial demeanour. This was demonstrated by staff who protected women from the urgency of the situation whilst conveying what needed to be done; as a guardian would endeavour to do. When women did not experience *intelligent guardianship* they became vulnerable and experienced many negative emotions. For example, when women were left alone during labour, or and when procedures were done to them without explanation or permission they became fearful. The categories that fed into these themes are presented in figure 7.2. Perceived competence

7.4.1.1 'In safe hands'

Believing that staff knew what they were doing was fundamental to trusting their judgements. It is part of our socialisation to trust the 'professionals' and some women came into the system with a very clear perception that staff were the experts:

They were all competent at what they were doing. And I think you put a lot of trust in them because you don't know what you're doing. You know you've never had a baby before, and they've seen babies come and go, it's their job, and so they're used to babies. And so you just sort of you trust them [848].

Occasionally, trust was based on previous experience, 'she had got it spot on before' [305] or based on a perception that was built on the care she had received so far [775]. Some women felt however that this trust had been misplaced and that they were 'swept along' [705] believing that what was happening was the right course of action.

7.4.1.2 'Staff knew what to do'

When staff clearly demonstrated that they knew what they were doing this helped alleviate the potential fear that could be caused because of the circumstances and being cared for by staff they did not know:

I don't think anybody introduced themselves to me...but that didn't bother me, 'cos they just seemed to work really well as a team, they all had their little job to do, whether it was covering me with that antibacterial paint stuff or whether it was helping the midwife to hold me while I was having my epidural. They all just seemed to have their job and got on and did...they just seemed really organised and I just felt really happy that I was in good hands really, erm, at that point, I didn't feel worried by that at all [1375].

Staff also demonstrated competence in a way that was reassuring when they acted quickly in response to an obstetric emergency. It was important to women that the staff did not hesitate when swift action was necessary:

I couldn't have wanted people to react more quickly and positively, and they obviously knew their job, and they knew what was happening [...] I think had there been a little bit more procrastination about 'what am I going to do?' I'd have started to think. 'oh, what are you going to do/ what's happening?' But they were just, it was 'no, this is what we're going to do, and this is why' and erm, ok [747]

7.4.1.3 'I'm sure they know their job but...'

Some women, although they had trusted the staff, questioned some aspect of their care. One woman felt that her caesarean should have been performed earlier but did not feel comfortable challenging what had happened. She said:

But I'm not a medic and I do trust them at the [hospital], so erm (pause: 2 seconds) I don't know perhaps I'm wrong. Perhaps it was fine to do it when it was. But I feel I was really lucky that [baby] came out in one piece (laughs slightly) [1227].

One woman required an emergency caesarean as her baby was diagnosed breech during labour. The competence of the midwives was publicly undermined by the consultant obstetrician:

And he [consultant obstetrician] got the portable scanner out, and he went mad with the midwives, and basically told them off in front of me. So he did, he, he, he told them off, in quite marked terms in front of us, and then, erm, very quickly I was in theatre [1375].

Not all procedures were carried out with skill. Women appreciated that sometimes procedures are difficult or painful. However, failure to acknowledge that further expertise is required or that they are causing discomfort is less forgivable. One woman describes her experience of catheterization:

And it was so painful, and erm she didn't apologise for it being painful it went on for a long time, and then she just went and got someone else who did it immediately. she was using the wrong size catheter or something. And I was upset about that, that you know, someone would carry on trying even though it was painful, and I'm not someone who would scream out and say... she didn't seem to look at me and sort of see that it was very painful [830].

7.4.1.4 *'Staff should've known'*

A related category that emerged from the data was 'staff should've known'. This sentiment was also combined with self-blame:

I should have realised that something was wrong when I'd been in labour for so long. So I think the midwives should have noticed something was wrong. I think they left it very late for her to come out. She had marks on her forehead...a mark, big strip across her on her forehead, probably for about eight months of her life. Which is where she got stuck [1227].

This category ranged from the life threatening example given above to simple practices that could have been employed to make life more comfortable for women following surgery. There were also examples of incompetence which related to care given by trainee staff:

Erm, she actually she was a trainee midwife, she'd already had problems getting the thing in the back of my hand, she kept trying and trying and trying. So I'd lost a little bit of confidence really earlier in the afternoon, although I hadn't I'd been saying to her, "look, don't worry, you're not hurting me." 'Cos I didn't want to be losing more confidence in her but she was shaking like this, and couldn't get it in, had to get the anaesthetist in the end [1375].

The following example relates to care given by a senior midwife:

'and what had happened was for the first hour the, it weren't working, because the drip hadn't been set up right. So, for the first hour what they thought was happening, nothing was happening' [1307].

It was not possible, of course, for staff to know everything. There were some misconceptions about what could have been predicted following previous investigations, as demonstrated by one woman who felt that her small pelvis should have been picked up before she went into labour:

I was absolutely horrified, 'cos, I, I, what I thought was, 'well surely to God they should have known that beforehand?' 'Cos I'd had enough scans, and enough people with rubber gloves feeling around inside, and erm, it, it it didn't exactly freak me out, but thinking about it since, you know, I, fifty years ago I might have just died and the baby with me' [1075]

7.4.2 Engagement

7.4.2.1 *'With woman'*

Staff used touch to convey support and this had a calming effect. One woman recalled the anaesthetist in theatre:

The anaesthetist was very nice, and he was very good when he was stood at the side of me, having the saline solution. You know, he had, he had his arm on me, hand on me, you know, just calming on the shoulder [305].

It was important for women that someone stayed with them during labour, which enabled a special bond to be developed between them. One woman recalled how the midwife had helped her use the gas and air properly:

So it was nice to have her there actually, when her shift changed I was hoping for another nice one. But they were all nice, but she was someone better [1227].

Another woman did not develop a positive relationship with the midwives on the labour ward. However, she remembered the theatre staff with great affection, particularly valuing physical support when she encountered a new environment:

I can remember when we got down to theatre, the theatre staff were amazing, and I felt at that time 'what a difference between the midwives and the theatre staff'. They were just lovely. And I can remember as they were putting the spinal block in I was sat on the edge

of the bed, and this nurse, the member of theatre staff was cuddling me. because I, you had to arch your back [...] and afterwards I thought, 'well. I prefer the theatre staff to the midwives to be honest (laughs) [1412].

One woman felt that because she was left alone during labour that her admission was unnecessary and that she would have been better off at home:

My waters went very early. The hospital told me to come in. But erm. a friend was arranged to come and collect me. She turned up and got to the hospital, and erm they left me all day. They wouldn't let me go home. I said, 'why can't I go home?' Oh, they were too busy to see me – they checked me when I went in, they checked me again at six o'clock at night, so I could have stayed at home after all [1307].

Her neglect persisted throughout the night when she was having painful uterine contractions. She had to constantly seek attention from the staff and at one point was left alone so long whilst in the bath that she wanted to, but couldn't get out:

And I had to let all the water out and eventually I could get out. And I asked for an epidural, and that was like 5 o'clock in the morning. And the man came and they left me in this room and in the end I was so fed up, I went looking and he was stood drinking a cup of tea. And, I'm, you know, I, I didn't say, 'what do you think you're doing? I've been waiting here', but that was sort of what I thought [1307].

One woman recounted how she was left during the second stage of labour whilst the midwife had a telephone conversation with her daughter; she was told to 'keep pushing' [400]. Another described how the midwives were always in and out of the room saying; 'I'll be back in five minutes' [1227] but returning quarter of an hour later. She had felt let down as she had expected them to be with her throughout most of labour.

7.4.2.2 'Staff just did their job'

Some staff were able to perform their clinical tasks competently and professionally but in a way that did not engage with the woman. One woman described how the staff failed to pick up her fear as she was being prepared for surgery:

I was just left to it. The being scared. I was just left to it really. They were just kind of clipping this on and swabbing that, and topping this up, and just working. No kind of, you know, personal contact at all. It was as though they were just working around me to get this done. bit like a production line, one in one out! That's how I felt anyway [544]

Another woman described the manner of one of the midwives who cared for her during labour. 'she was very, very, just literally. in-out, no warmth at all. or chatty' [569]. She made light of this by going on to say, 'but then every four hours obviously (laughs) you get a different one. It depends, it's just luck of the draw' [569].

One woman identified that for a midwife to stand out she needed to work in a way that involved more than just getting the job done:

A lot of the midwives I think are very caring. Some of them aren't, but I think it, it doesn't mean they're not doing their job properly. It's that extra something that (pause: 2 seconds) they love what they're doing. And they really genuinely care. It's just the warmth, it's not just coming in, "Oh, I'm just checking your - " I don't know. it's this warmth from people (laughs slightly). I don't think I could do it (laughs). I just think, some of the midwives, you can just tell they shine, outshine other midwives [337].

It was important to women that when staff were not with them that they could be called upon without being made to feel that they were being troublesome. Staff who gave women the impression that they were there for them and not hurrying off to their next job had a rare gift:

She was kind, efficient, nothing, she, she didn't ever seem tired. Erm, so when I saw her, when she was helping me I didn't ever feel that I was intruding on something she was supposed to be doing, or she was tired with the whole process, which helped. I think sometimes you get staff and they are tired and then you do start to feel almost as if you are bothering them [1375].

It was more common however for staff to convey that they would rather be somewhere else, particularly medical staff :

I mean, the main thing that sticks in my mind about the whole thing was the doctors, the way the doctor behaved, she was very short, and all the time, short and curt and abrupt. Erm, cos like I say, there was another lady across the way from me who also didn't get anywhere after being induced. And it was as if we were doing it on purpose, you know, not having our babies and she needed to be off or something, I don't know [544].

7.4.2.3 *Beyond the call of duty*

There were many examples where midwives demonstrated that they cared about the women they had looked after, by going out of their way to continue their contact with them, over and above their usual duties:

Oh she was lovely. She was really nice. Erm. she actually went off shift. she finished her shift, I think she finished, she finished at six, but she stayed. she didn't go home. she stayed 'til I had [baby] at half past eight and she waited until I had her before she went home [...]it was lovely, it really was, she cared. She didn't just, you know. I wasn't just another pregnant woman in a long line of pregnant women. she actually bothered to stay and see how, what happened [877].

There were also examples where this personal care was demonstrated beyond the day of birth.

7.4.2.4 'Staff didn't believe me'

Some staff disregarded information which women offered regarding what was happening to their own bodies. One woman who had an emergency caesarean for undiagnosed breech in labour recalled:

While I was in and they were starting to induce me I did actually feel a big movement of her (the baby) and I reported this to the midwives and I was basically looked at as though. 'oh, what on earth are you going on about?' you know. First time, that was how I felt, first time mother, 'oh, you don't know what you're talking about, go back to sleep' type of thing. And you know things like that are important, and if they'd have just taken a bit more notice, because they're seeing this day in day out [1375].

Lack of belief in a woman can seriously affect a woman's self-confidence. One woman recounted how the midwife had made her feel 'stupid' [975] by telling her that she had 'wet herself' rather than believing, as turned out to be the case, that the woman had spontaneous rupture of membranes.

7.4.2.5 'What's going on?'

Women made multiple positive comments about staff who explained what was happening throughout their childbirth experience. Trusting the staff was often related to having a belief that they would always keep her informed of events:

And I just felt that I was quite, erm, trusted them – the midwife who had been with me all the way along, she was explaining as we were going along, she was talking to me [433].

Women valued explanations even if they had been through a similar experience before:

Even though they knew I'd had a section, they, they still explained what was going to happen next [...] they explained every step of the way what was happening next, you

know, when they, they sprayed my tummy and everything that I'd erm, that it had taken effect. You know, they, they were very, very good [848].

The sense that staff were being open and honest enabled women to feel at ease [775]. Not explaining what to expect left women feeling vulnerable and out of control:

Nobody told me anything about having a caesarean for two days, no one gave me any information. And I had to ask what it meant to have a caesarean, and what, how I would recover [...]. And I had pains in my chest afterwards and I mentioned it to the consultant, and he said 'Oh have you been doing your breathing exercises after having the caesarean?' and I said, 'well, no one's told me to do them, I haven't had' and so, you know, it was things like that, no one had, there wasn't one midwife that I saw that came and sat with me afterwards and said, 'this is what happened, this is why and this is, you know, what it will mean for you' so it was, erh I, that was, I found that really disappointing [830].

It was recognised that women experiencing childbirth for the first time needed information and one woman commented that childbirth is an everyday event for midwives. She urged midwives:

Just try and realise that this one person might actually be quite scared, and not really know what's happening, and just keep reassuring them and telling them what is happening as much as possible [1227].

Having access to information is part of the process of making choices and involving women in decisions about their care. It is important, however, that it is pitched at the right level for each woman so that she can make maximum use of it without feeling out of her depth or condescended to. Women have access to a wide range of information, of varying quality and some seek clarification from the midwife. It is essential therefore that they are able to communicate effectively and respect each other's experience.

7.4.2.6 *Involvement in the decision to have a caesarean*

None of the women interviewed questioned the decision that a caesarean was necessary (n=21). Most felt that the decision was out of their hands but trusted the advice of the staff:

They just said 'we have to, we have to do this,' but obviously I agreed and said 'yeah,' we signed the form. But that, as I say, to me that just wasn't a problem. And I just felt that I was quite, erm, I trusted them [433].

This sentiment was echoed by many of the women. They were happy not to have a choice but were grateful when the situation was explained so that they could understand the rationale behind the doctor's decision:

I was a member of the NCT (National Childbirth trust) and I went through all the sort of benefits and risks and I remember asking all about it, and whether there was an alternative, and they said there wasn't. So, erm, so that you know, that was fine. I was quite happy to go ahead with it [830].

Another woman could not comprehend why she was even offered a choice about whether or not to continue in labour or have a caesarean:

I said, 'well, why are we continuing if you don't expect anything to happen?' And they said, 'well (pause: two seconds) we, we have to give you the choice'. I said, 'well if nothing's happening, and she's still, the baby's still here, what are you, what are you going to do?' And they said, 'well we think we're going to have to do a caesarean [...] And I remember thinking, well, they're the doctors, why are they giving me a choice? [1307].

One woman recounted how she had not been part of the decision to have a caesarean, but on reflection was glad not to have that responsibility:

I just went along with it. I just, you know, I didn't know whether I could say yes or no [...] I didn't know I could have said no. But then you know, if something had happened, I would have thought, 'well, I said no, and look what happened'. So. [544].

7.4.3 Demeanour

7.4.3.1 'No drama'

One way that staff contributed to women having a positive experience of emergency caesarean was the relaxed manner in which it was prepared for and conducted:

I think just, the fact that it was, it was all so normal and they weren't rushing about – you know like you see on ER and Casualty and Holby, there was none of that urgency, none of that 'oh my God, we've got to get this baby out, you know or else the world is going to end!' It was all perfectly normal, perfectly friendly [1343].

Women usually welcomed the distraction of either banter or the radio, which served a mirroring purpose of 'if they're happy then things can't be too serious'. They seemed to use the demeanour of the staff as a barometer against which to gauge the seriousness of the situation much as airline passengers observe the air stewards during times of turbulence. Maintaining a 'normal' relaxed atmosphere was reassuring:

I remember there was football on the radio, it was. erm. European, England were playing. It was quite an important match. And I was quite happy for them to have the radio on, and they were really nice atmosphere and they were joking and jovial and but reassuring. They didn't frighten me by that, they made me feel more normal by being like that [1375].

Being approachable and friendly was particularly valued. One woman when asked if there was anything she might like to say to staff who care for women in labour said:

When they (sighs) when the people are actually in sort of labour and are obviously getting to the stage when they are going for epidural and things, just make sure that they are as reassuring as possible, and as normal as possible. Try and forget they're medics and just (laughs slightly) be themselves, you know what I mean, 'cos sometimes when a midwife's being a midwife, (pause: 2 seconds) she's being too much like a, a nurse if you like. And not enough like someone who's there who need, you know, will help you [1227].

That sentiment was also echoed by a woman who was recalling a midwife who stood out as being particularly supportive:

Interviewer: Mmm. Can you put your finger on what was better about her?

Woman: Erm (pause: 2 seconds) she was very professional, but still remained friendly and jovial [848]

7.4.3.2 Use of humour

Staff also used humour with the effect of helping to keep the atmosphere relaxed and as 'normal' as possible:

I did really like the midwives that I had [...] she were really good, she had a lovely sense of humour, she was nice. Whether there was a panic going on or not, you would never have known with her, she was really nice [1307].

Being able to keep a sense of humour in difficult circumstances was viewed with respect:

I think the midwife was absolutely brilliant, 'cos she was just. she was joking and laughing [...] she was just amazing [400].

7.4.3.3 'Banter'

Another category that emerged from the data was 'banter' and in this context relates to the chit chat that professionals engage in to help women feel at ease or to take their mind off the situation they are in. Banter was most typically encountered in theatre and employed by anaesthetists:

He (anaesthetist) was really great. He was being chatty and friendly and warm and talking about completely different things to what was actually going on in the here and now....my husband found that incredibly supportive [775].

Another woman described how being in theatre was 'like having your hair cut' [1343] with everyone talking about holidays and suntans. This approach made an abnormal situation feel normal. Not everyone valued a casual atmosphere in theatre however as it detracted from the significance of the event.

7.5 Summary of chapter

Staff were generally perceived positively by women three years after the birth. Women who had emergency caesarean, however, perceived the staff who cared for them more negatively than women who experienced spontaneous vaginal birth and perceptions of the staff became more negative over time for most women irrespective of mode of birth. It was important for women to trust the staff who cared for them during the birth of their baby. Trust was maintained or developed where the staff were perceived to be competent and enhanced when staff engaged with women and adopted a relaxed demeanour. Those staff who exercised 'intelligent guardianship' enabled women to form an enduring positive experience of birth despite the need for emergency caesarean. Figure 7.3 provides a conceptual model of the core category 'intelligent guardianship'.

The next chapter provides a critique of the methods used in the current study, a discussion of the main findings and consideration of the implications of these findings for service delivery, education, maternity policy and future research.

intelligent guardianship

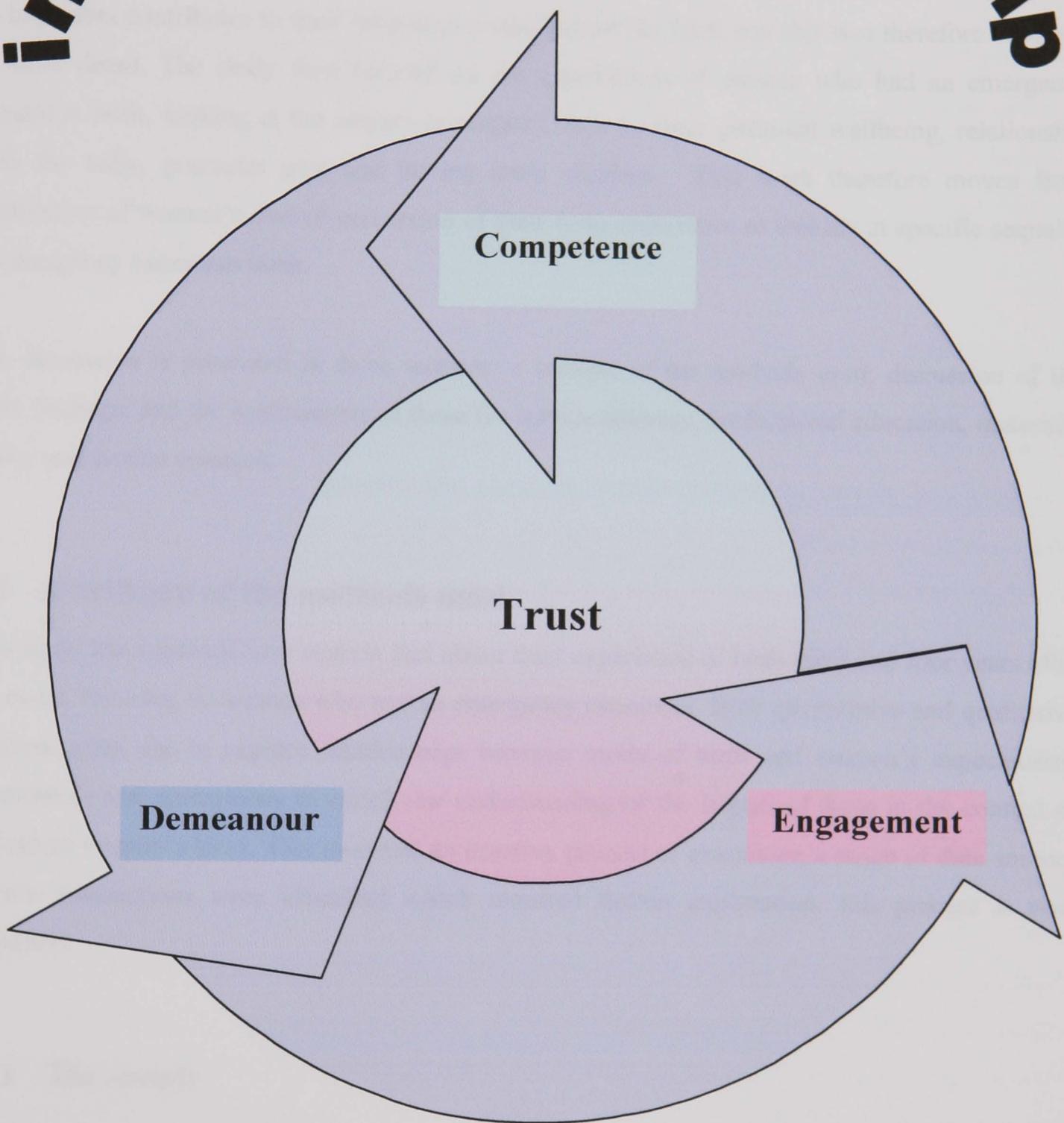


Figure 7.3 Conceptual model of perceptions of the staff by women experiencing emergency caesarean birth.

CHAPTER 8: Discussion

8.1 Introduction

This study has explored women's experiences of birth and their long-term perceptions. It began by looking at factors that predicted a negative perception of the birth experience looking back three years later. Women's perceptions of the staff who cared for them around the time of the birth was an important contributor to their long-term evaluation of the birth and this was therefore explored in more detail. The study then focused on the experiences of women who had an emergency caesarean birth, looking at the impact of surgical birth on their postnatal wellbeing, relationship with the baby, postnatal care and having more children. This work therefore moves from exploration of women's overall perception of their birth experience to looking at specific sequelae of emergency caesarean birth.

The discussion is presented in three sections: a critique of the methods used; discussion of the main findings; and the implications of these for service delivery, professional education, maternity policy and further research.

8.2 A critique of the methods used

This study has explored how women feel about their experience of birth three and four years after the event, focusing on women who had an emergency caesarean. Both quantitative and qualitative methods were used to explore relationships between mode of birth and women's expectations, experiences and perceptions to enrich our understanding of the impact of these in the context of individual women's lives. This involved an iterative process of examining a range of data sources as new connections were identified which required further exploration: this process is now discussed.

8.2.1 The sample

8.2.1.1 Representativeness

The sample did not include women from large urban areas however, as highlighted in Chapter 3, the respondents to the follow-up questionnaires reflected national trends and demographics. Consistent with other studies, they were older and better educated than non-responders. Of the women who returned a follow-up questionnaire (n=738), only ten were not British and only three

of these had experienced an emergency caesarean birth. The sample did not, therefore, represent women from minority ethnic groups. Under representation of women from minority ethnic groups is a well-documented shortcoming of the postal survey method (for example: Cartwright 1988; Crow, Gage, Hampson, Hart, Kimber, Storey and Thomas 2002). Women who responded to the questionnaire in 2003 were significantly less likely to be pro-intervention and have an epidural than women who did not respond and may therefore have had different expectations of the staff who cared for them.

The women who took part in the interviews were a purposive sample and as such fulfilled the selection criteria. The sample represented women from a range of demographic variables including age, education and social class. They also represented a range of obstetric variables including analgesia, length of labour and previous mode of birth. The sample included women who were favourable about their birth experience as well as those who were not.

With one exception, all the women who were interviewed had given birth in one of the four northern units, in order to reduce travelling time to and from the interviews. Thus their stories reflected the practices and philosophies of the northern units. There were no differences however, between the northern and southern units regarding mode of birth, parity, age, education or employment, mean EPDS scores, satisfaction and 'looking back', although women in the northern units were significantly more likely to have an epidural than women. There were no significant differences in the way that women perceived the staff, except for the adjective 'humorous', which was more likely to be chosen by northern women.

8.2.1.2 *Sample size*

Of the women who received a questionnaire, 70% completed and returned it. There are no known studies that report surveying women three years subsequent to an original study 'unexpectedly' hence it is difficult to assess the relative success of the response. However, in studies where women were expecting to receive an additional questionnaire, such as Garel, Lelong, Marchand and Kaminski's four year follow-up study (1990) approximately 50% of women responded. Sjogren (1998) achieved a 72% response rate in her follow up study of women who had received counselling for fear of childbirth, one to three years after the event. Waldenstrom, Hildingsson, Rubertsson and Radestad (2004) followed women one year after the birth of their babies and 56% of those who were eligible for the study completed all three questionnaires.

The size of the sample in the current study was adequate for most analyses. However, it did not permit safe analysis using multiple regression techniques, of a subset of women (those who had an

emergency caesarean), when a variable was included (such as length of labour) which reduced the number of cases. Future research would either need to have larger sample size or use techniques that ensured maximum response to key questions (record review or direct questioning) in order to apply multivariate analysis to such a sub-sample. Sample size also precluded development of separate models for multiparous and primiparous women: as there were only 79 women who were unhappy looking back on their birth experience, further subdivision by a predictor variable and then by parity gave rise to very small cell sizes.

Twenty-one women took part in taped interviews regarding their experience of emergency caesarean birth. It had originally been planned to interview a maximum of 35 women unless saturation occurred earlier. During the last two interviews, no new themes emerged and a decision was made to focus in detail on the data already collected rather than arrange further interviews that might yield little in the way of new information. Each story recounted by women has a valuable contribution to make, either by confirming previously emergent themes or by offering new insight into the phenomenon under investigation. Whilst it is always a learning experience for a researcher to interview a woman, a balance needs to be struck between the time and energy put into continuing to recruit and interview women and the new insights this achieves.

8.2.2 The questionnaire

The women were familiar with the format of the questionnaire, as it was similar to those they had completed previously. There were no apparent problems for them negotiating their way through the booklet and answering the questions that were relevant to their own circumstances. The following questions caused some problems however:

FQ page 6, A16. 'Is there anything else you would like to tell us about your Millennium baby, about feeding or otherwise'. This question had been posed in order to catch any further relevant information about the baby and had been revised following the pilot exercise. However, because it followed questions on breastfeeding, responses continued to focus mainly on feeding issues.

FQ page 7, B1. 'Other pregnancies and babies' This question aimed to glean a range of information using a tick-box format and it worked surprisingly well. Occasionally women ticked both 'pregnancy loss (wanted pregnancy)' and a mode of birth (for the same pregnancy) presumably because they had focused on the 'wanted pregnancy' part of it and wanted to show that this had been the case.

FQ, page 14, C30. ‘How do you feel when you look back on your experience of the birth in 2000?’ It would have been useful if, in addition to the question relating to how women felt looking back, women had also been asked the same satisfaction question as had been asked six weeks following the birth. This would have enabled greater comparability between how women felt then and three years subsequently. However, I did not repeat the question because I felt I had reached the limit of asking the same questions (for example, EPDS), which might be construed as testing the consistency of responses rather than my interest in how such perceptions had changed. The ‘looking back’ question did not enable women who had mixed feeling about their birth experience to express that fact. Therefore, as satisfaction was not assessed in the same way at six weeks and three years after the birth, it cannot be determined whether it went up or down over time. The inclusion of questions relating to many aspects of the birth experience did, however, enable women to provide specific feedback regarding factors that could have influenced their perception, as explored in Chapter 5.

Some women are more difficult to please than others and some may also be less inclined to declare themselves completely satisfied if they can identify aspects of a situation where care could have been better, despite feeling quite happy about it. Also, some women will measure their satisfaction against an ideal and others against a more realistic appraisal of events (Statham, Solomou and Green 2001). The strength of the looking back question is that it explicitly deals with the affective component of satisfaction.

8.2.2.1 Coding of questions

There were a range of open-ended questions referred to in Chapter 3 (3.3.2.10) that were coded ‘very positive’; ‘positive’; ‘mixed’; ‘negative’ or ‘very negative’. This was a crude means of capturing the sentiments behind women’s statements. Whilst some were examined in more detail (C34 and C35) it would have been useful to have taken this analysis further for all such questions.

One free text question that was coded in great detail was on the first page of the follow up questionnaire. Detailed research was conducted into the most useful way of coding women’s responses and the Social Readjustment rating scale was used (Holmes and Rahe 1967), each event mentioned was given a score and these were totaled for each woman. However, this proved to a fruitless exercise as only 310 women had made an entry in the box and it was evident from their other questionnaire responses that women differed in terms of which events they considered to be ‘important’. It would have been more prudent to have given women a formal recognised checklist.

such as the List of Threatening Life Events (Brugha and Cragg 1990) from which to identify important life events.

During the analysis it was sometimes necessary to collapse some categories to avoid the problem of small cell size when there were multiple options available to women. When such measures were undertaken this was always made explicit (see Appendix 9). However, it is acknowledged that doing so potentially reduces the ability to explore the subtle differences between groups and may result in a less precise interpretation of the data.

8.2.2.2 Self-report of events during labour

That women were providing retrospective self-reports of obstetric interventions might be considered a potential source of inaccuracy in this study. However, to have undertaken a review of obstetric records in addition to women's recall would have been time consuming and costly to achieve. It could also have been a waste of resources as there is evidence that women are a reliable source of information regarding their birth (Cartwright 1987b; Creedy, Shochet and Horsfall 2000).

8.2.2.3 Individual differences

The way we perceive the world is, in part, determined by our personality. The questionnaires did not contain any tools for the measurement of personality traits. Such assessments are difficult to make during pregnancy, a time during which women's emotions are highly labile. An example of a personality measure which is potentially less reliable in pregnancy is The Eysenck Personality Inventory (EPI) which includes 57 questions (24 of which measure neuroticism). The EPI includes such questions as, 'Does your mood often go up and down?' and 'Do you worry that awful things might happen?' Although respondents to the EPI are asked to focus on 'their usual way of acting and feeling' it could be argued that the emotions of pregnancy might influence women's responses. It was not considered appropriate to load the follow-up questionnaire with too many questions that were not related to the birth, for fear of reducing the response rate. Ideally personality traits need to be measured before pregnancy, but in the context of most research studies, this is unrealistic.

Antenatal anxiety was not measured in the Greater Expectations? study (Green, Baston, Easton and McCormick 2003) and could not therefore be taken into account during subsequent analyses. As with personality measures, it is particularly difficult to make an accurate appraisal of women's anxiety levels around the time of childbirth, even when using previously well-validated

instruments. For example, Hundley, Gurney, Graham and Rennie (1998) found that the Spielberger State Trait Anxiety Inventory (STAI) was not a stable measure of anxiety around the time of birth and that its test re-test reliability was low. There were also no antenatal measures of locus of control, attributional style or perception and response to stress and these factors could also have contributed to the woman's perception of the birth.

8.2.2.4 Support from a significant other

There is evidence to support the view that women are more satisfied with their experience of birth when their partner plays an active supportive role (Lavender, Walkinshaw and Walton 1999; Goodman, Mackey and Tavakoli, 2004). The questionnaires included questions about the presence of a chosen companion during labour (PNQ, page 24, D1), whether or not the partner stayed during preparation for instrumental or caesarean birth (FQ, page 11, C14 and FQ, page 12, C20) and whether or not the partner stayed for the caesarean birth (FQ, page 13, C25). Univariate analyses did not show any relationship with these variables and how women felt looking back. There were no questions however that explored the role the partner played or how the woman felt about his or her contribution. Similarly, I did not ask specific questions regarding the partner during the interviews although occasionally women shared their reflections on this matter without prompting. Future research regarding women's perceptions of their birth experience should take account of antenatal expectations of their partner's involvement followed by an assessment of what actually happened.

It is likely that women's perception of the birth experience will have been influenced by factors that were not captured by the questionnaire or the interview. Domestic violence is one such example. Women who have been victims of violence, as children and / or as adults, have been shown to experience a range of adverse psychological and physical outcomes, before and following childbirth (Gazmararian, Petersen, Spitz, Goodwin, Saltzman and Marks 2000). Other potential missing factors might include: their mother's attitude to motherhood; women's financial and social circumstances, the impact of the media on attitudes to childbirth and the influence of peer groups.

8.2.3 Interviewing women

8.2.3.1 *The sample*

Women were selected for interview in two rounds as explained in Chapter 3. The criteria for selection were informed by analysis of the quantitative data to include women with a range of characteristics. The line of questioning for each interview was informed by themes emerging from the interviews. It would have been ideal to select each subsequent interviewee on the basis of analysis of each previous interview but this would have led to a protracted interview phase.

The sample comprised women who had had an emergency caesarean birth and as such potentially limits the generalisability of the findings to women with this experience. It would have been valuable to interview women who did not have an emergency caesarean for comparative purposes but this was not possible within the resources available. However, all but one woman, experienced labour and they described their care during this time. All women in labour venture on a journey with an uncertain path, timing and conclusion. The care they receive during this time influences their appraisal of the birth and the findings from this aspect of the study are therefore relevant to all women who experience labour in a hospital setting. There are parallels between the experience of women who have an emergency caesarean and other clients who encounter health services in situations where the journey and outcome are uncertain.

8.2.3.2 *Interview setting*

Most of the 21 interviews took place in the woman's home, however, two were undertaken at the woman's work place at her request. They were both professional women who had their own office space and personal assistants to ensure that we were not interrupted. There are many advantages of seeing a woman in her own home not least because it is possible to imagine the environment in which she recovered from surgery and cared for her baby. However, these women felt that seeing them at work would be the place of least distraction and therefore they would be more able to focus on the interview. If they had not been able to 'switch off' from their work, their interviews might have been short and not reflect their true emotions. This was not the case however as both of these interviews lasted more than 55 minutes and provided a rich source of insight into women's experience of emergency caesarean.

8.2.3.3 *Impact of the researcher*

Occasionally women asked me if I knew the Unit where they had given birth, when they were trying to describe a ward environment or a particular practice. I felt that it was an advantage that I

had not worked in any of the units covered by the research as this enabled the woman to speak freely about her care without worrying that I would take back her comments to the individuals involved. Some respondents also recognised my name from the covering letters from the original study 'Greater Expectations?' Some wanted to know about my involvement in the study and how the data would be used. I was always open and honest in response to any questioning, but because some women asked questions and others did not, there was a difference between the level of knowledge that some women had which may have altered their perceptions of me and their responses to the questions I asked.

During the course of an interview, whether conducted by an expert in the field or by an objective research assistant, it would be impossible not to convey some emotional response to the stories that women tell. It would be inappropriate not to show concern when a woman recounts, for example, how the level crossing barriers were raised to allow the ambulance she was travelling in to speed on its way [747]. Such responses convey that the woman's experience is significant and that the researcher is listening attentively and has some understanding of how this might have felt, encouraging her to continue with her story.

I found that undertaking the interviews evoked both positive and negative emotions. Of particular note was the diversity of social circumstances. Many interviewees lived in cramped accommodation, whereas others enjoyed luxurious surroundings. Only one woman did not live with a partner, and some worked around childcare. I reflected on how isolated and unsupported some women appeared compared with others who were able to pursue a busy social schedule. Each Millennium baby was growing up within unique 'family units' exposed to a range of social opportunities and threats. Some of these children played noisily and creatively during the interview, others gazed relentlessly at a television screen. Although I wore my 'researcher' hat and asked my questions objectively, listening attentively to the responses, I wonder if and how my emotions were conveyed in my body language. As an experienced midwife, I would like to think that I am able to walk into anyone's house, intuitively appreciate a woman's particular situation and care for her appropriately. However, as a researcher, I was not in a position to use the information I gleaned in the same way.

8.2.4 Strengths and weakness of the methodology

I believe by using both qualitative and quantitative methods to investigate this issue that greater insight was gained into the impact of emergency caesarean birth on women's lives. The two methods complemented each other as issues raised from analysis of the questionnaires (both

quantitative and qualitative data) were explored in depth during the interviews. Analysis of the transcripts generated further questions that were explored further by re-examining the quantitative data. Using interviews enabled the topic to be explored from the women's point of view as well as from mine and so the research became a complex, dynamic interaction, made more detailed by the addition of data derived from field notes, experience and the literature.

Being involved in interviews has benefits for both researcher and respondent. Interviews enable the researcher to convey their genuine interest in what women have to say. Having the opportunity to talk about her experience of birth to a sympathetic listener may have profoundly influenced the woman's account. For example, putting her feelings into words and hearing herself say them can generate emotions that were hitherto unknown.

The extent to which I influenced the data both generated and collected during the interviews will remain unascertained. As Oakley (2000) wisely acknowledges:

One may never definitively say that the data produced through interviewing are not shaped in some way by the manner of their production (page 16).

I endeavoured not to show judgement when a woman talked about care that was obviously poor but at the same time had to show by my face that I recognised it as such. It may be that talking to me as someone who was an outsider and not linked to the hospital in question, but with sufficient professional and personal knowledge to appreciate how she was feeling, enabled a woman to delve deeper into her experiences than if this had not been the case. If the person that one usually confides in is deeply affected by the subject in question, it is often difficult to divulge the full extent of one's emotions. For example, one woman [705] told her husband that she had not felt love for her son when he was first born and for some time afterwards. This had shocked and horrified him and she did not raise the issue with him again. It would be interesting to explore the impact of the researcher's credentials on the level of detail that people disclose during interviews.

Women differed in the way they perceived the purpose of the interview. Despite providing a detailed explanatory letter about the research, I found some women thought I had an ulterior motive. This is illustrated by one woman's response, 'no I'm sorry I can't dish the dirt on anyone' [877]. The ultimate aim of my research was to listen to women's messages, identify common themes and convey them back to those professional groups who currently care for women. Stating in the interview information letter that I was a midwife enabled women to direct their accounts to an audience with a purpose. Although this might have prevented some women from being critical of my profession, judging by the interviews, I do not think that this was the case.

8.2.4.1 Methodological issues

A question that I had considered during recruitment of women for interview was: did women who do not write very much in the free text boxes of the questionnaire also have very little to say during an interview? I looked through the interview transcripts and the questionnaires for each woman that I interviewed and found that there was no clear pattern. Most women did not require much prompting during the interviews; however of those who waited for questions or gave shorter responses, there was an equal mix of length of replies in their questionnaires. Indeed, the most difficult interview in terms of a woman needing a lot of coaxing to answer my questions was a woman who had used additional pieces of paper when she completed her questionnaire and who had contacted me to ask if I was going to interview her. The small number of interviews conducted does not permit meaningful analysis of the correlation between questionnaire and interview responses. Length of response to questionnaires and interviews is probably related to the amount of time a woman feels justified in spending talking about her self and her experiences and how passionate she feels about the issues raised.

8.2.4.2 In summary

This study combined methods to explore how women felt about their experience of emergency caesarean birth. Issues raised during the analysis of the quantitative data were explored in the interviews and vice versa. These methods provided rich data that increase our understanding of women's experiences and their appraisal of them. Whilst there were some issues that could have been further explored there were also many attributes of this study, including its prospective, longitudinal design, which gave rise to findings that make a significant contribution to knowledge in this area of maternity care.

8.3 Discussion of the main findings

The findings of this study have raised many issues for discussion. In Chapter 5 predictors of feeling unhappy with the experience of birth three years after the event were explored using multivariable logistic regression. I had hypothesised that mode of birth would not remain a significant predictor when other variables were taken into account: however, it remained the most relevant contributor to a negative appraisal of the birth experience. It emerged that many of the contributing factors were related to the care or perception of carer, and as such were potentially alterable. In Chapter 6 the sequelae of emergency caesarean birth was explored. The findings highlighted aspects of postnatal care that were deficient and that women who had an emergency caesarean were more likely than other women to evaluate their experience negatively. The mode of the index birth influenced how women thought about the way that subsequent babies might be

born. Chapter 7 presented a conceptual model 'intelligent guardianship' which reflected an approach to care through which a trusting relationship could be developed between the carer and the woman.

It can be seen that some of these issues overlap and interconnect; for example how women feel looking back was influenced by how they perceived their care. Issues are presented under the following headings: looking back on the birth experience; the psychosocial impact of emergency caesarean birth and perceptions of intrapartum care and carer. This section begins with an overview of the issues related to the question 'How do you feel when you look back on your experience of birth?'

8.3.1 Looking back on the experience of birth

8.3.1.1 Background – measuring satisfaction

Asking women to evaluate how they feel when they look back on their experience of birth is essentially to gain a measure of their satisfaction or dissatisfaction with the event. However, satisfaction is a difficult concept to measure, not least because it is difficult to define. Satisfaction with childbirth has often been conceptualized as an overall evaluation of the event and multi faceted (for example, Goodman, Mackey and Tavakoli 2004). Researchers have identified a range of factors that influence maternal satisfaction (Teijlingen, Hundley, Rennie, Graham and Fitzmaurice 2003) and it is often used as an indicator of the quality of care women receive (Hodnett 2002). It has been suggested that to be satisfied with the outcome of birth depends on how well events lived up to expectations and studies have shown that when such expectations are fulfilled that women report higher levels of satisfaction (Green 1993; Slade, MacPherson, Hume and Maresh 1993). Yet as Crow, Gage and Hampson et al (2002) identified in their review of the literature regarding the measurement of patient satisfaction, despite the relevance of expectations in relation to satisfaction, only 20% of studies took these into consideration.

There are various theories that have been proposed regarding the concept of satisfaction. Bramadat and Driedger (1993) discuss two models: fulfillment and discrepancy. With the fulfillment model, satisfaction is related to the outcome alone, whereas with the discrepancy model, satisfaction relates to a person's prior expectations and whether or not they were met. I would argue that when a person evaluates how satisfied they are with an event that they might also re-evaluate whether or not their expectations were legitimate in the first place. Also women will not only evaluate their experience against their own yardsticks but also against those of the society in which they

experience them (Linder-Pelz 1982; see also Appendix 10). Although women may not have overt expectations about experiences which were not even contemplated before they happened, their overall evaluation will be a composite of their attitudes to aspects of the situation previously held. So, for example, although a woman may not have expected a caesarean, she will already have expectations about how people should behave towards each other and perhaps specifically about how health professional should behave.

Research into the phenomenon of satisfaction is complex requiring the researcher to consider many aspects of the experience in order to identify its predictors. Bramadat and Driedger (1993) point out that when a number of scales are used to assess aspects of an experience, they are usually evenly weighted, when this may not be the case in reality. For example, a woman may value her partner's support more highly than that from the staff but they may be given equal weight when the data are analysed. Comparing the results of studies exploring satisfaction is also difficult because of the use of different measures.

8.3.1.2 *Changes over time*

In this study, women who were highly satisfied with their birth experience six weeks postnatally were also positive about it three years later. Also, of the women who gave a low satisfaction score (five or less out of ten) six weeks after the birth, 60% were either quite or very happy with 'the way things went' three years later. It therefore appears that women became more positive over time but as different questions were asked, this cannot be confirmed. Studies that have looked at satisfaction over time (Bennett 1985; Simkin 1992; Ryding, Wijma and Wijma 1998a; Statham, Solomou and Green 2001; Crow, Gage, Hampson, Hart, Kimber, Storey and Thomas 2002; Waldenstrom 2003) have reached conflicting conclusions.

It has also been suggested that data collected soon after the birth reflect the woman's relief that the birth is over. Robinson (2004) disputes the application of the 'halo effect' as an explanation of why women's attitudes towards their birth change over time. She asserts that initially woman want to believe that their carers had their best interests at heart but later, as they try to make sense of what happened to them, they find such an evaluation incongruent. She writes:

But the memories keep bubbling to the surface, and they do not fit. In the unavoidable rumination on their experience, a different picture emerges. As they grow stronger, so does their confidence in their assessment of what happened (page 515).

The potential to re-evaluate an event is increased as more time goes by. As one women in the Cambridge Fetal Abnormality Study said 'you're satisfied as far as you know' going on to explain that this evaluation might change if new information came to light about action that should have

been taken (Statham, Solomou and Green 2001, page 157). Such re-evaluation can go either way. In the present study, I asked women how they felt about their birth three years after the event, during which time they could have heard further childbirth stories from family and friends, seen documentaries on the television or had another birth experience themselves. When I interviewed some of them four years after the birth I took the opportunity to ask if anything had happened in the intervening years that had changed the way they looked back on their experience. There were many examples of how women saw their experience from another perspective after gaining further insight into what happened to them. One woman said:

There's been a few cases in the paper over the past year of women having caesareans and then dying of a blood clot, yeah, there's one in the paper at the moment for medical negligence, where a woman died. Erm, I didn't appreciate at the time just how dangerous the procedure, a caesarean section was [...] this is not a walk in the park [1343].

8.3.1.3 Predictors of satisfaction with the birth

In 2004, Waldenstrom, Hildingsson, Rubertsson and Radestad published the results of a study which aimed to investigate the prevalence and predictors of a negative birth experience in a large Swedish sample. This study is particularly relevant to my work, as we had explored the same issue in a very similar way. Women were recruited antenatally and completed three questionnaires, one antenatally, the second two months after the birth and the third one year after the birth; 2541 women completed all three questionnaires. The outcome measure was 'women's experience of labour and birth assessed one year after the birth' (page 18). Unfortunately it is not entirely clear how the question was phrased; 'one question asked women to make a comprehensive assessment by choosing one number of seven on a 7-point scale (1=very negative; 7=very positive)' (page 19). As in my analysis, the outcome measure was dichotomised, except that in Waldenstrom et al's study, the negative group comprised those who chose 1-2 on the scale and they were compared with a mixed or positive group who chose 3-7 on the scale.

Waldenstrom's team then undertook univariate analysis comparing all the predictor variables with the outcome measure, many of which showed significant differences between groups. They then undertook regression analysis on 'all statistically significant variables from the univariate analysis' (page 23) which would have been approximately 56 variables. It was not stated whether a forced entry method (where selected variables are put into the model in one block) or stepwise method was used. Their large sample enabled them to develop separate models for primiparous and multiparous women. The main finding from the analysis was that women who had an emergency caesarean birth had the highest risk of experiencing birth in a negative way (OR 5.1) particularly multiparous women (OR 7.6) and this concurs with my results.

I will now discuss the findings from Chapter 5 in relation to the wider research literature. This section explores the results from the final model (page 105, table 5.10), that comprised significant predictors of unhappiness with the birth experience three years after the birth. For the purpose of this discussion I will focus on the most predictive variables which were: having an emergency caesarean birth; having an instrumental birth; not having close contact with the baby within one hour of the birth; not feeling that the staff were supportive and feeling that the staff were insensitive around the time of birth. I will also comment on the presence of multiparity in the model. The emergency caesarean model also highlighted that feeling her life was in danger and not being treated with respect were important predictors of the way women felt about their birth three years later. The discussion begins by exploring the results of multivariable analysis for all women irrespective of mode of birth and then considers women who had an emergency caesarean.

8.3.1.4 Mode of birth

One of the hypotheses for this work was that mode of birth *per se* would not be a significant predictor of a negative perception of the birth experience, but rather that the events surrounding the birth would be more influential. The hypothesis was not supported as the most significant predictor of how women felt looking back was having had an emergency caesarean birth (OR 10.40), closely followed by having had an instrumental birth (OR 7.17) independently of associated variables such as the baby having problems at the birth and length of labour.

That having an emergency caesarean leads to a negative birth experience is supported by the outcome of previous research. Most recently, as already reported, Waldenstrom, Hildingsson, Rubertsson and Radestad (2004) came to the same conclusion when they explored this issue with Swedish women one year after birth. Saisto, Salmela-Aro, Nurmi and Halmesmaki (2001) also used multivariate analysis to look at predictors of a negative evaluation of the birth (measured between two and three months after the birth) and emergency caesarean was again the strongest contributing factor. This was a relatively small sample of Finnish women however, (n=211) and the extremely large confidence intervals suggest insufficient power.

Many other studies using univariate analysis have found significant associations between emergency caesarean birth and dissatisfaction (Green, Coupland and Kitzinger 1998; Ryding, Wijma and Wijma 1998a; Padawer, Fagan, Janoff-Bulman, Strickland and Chorowski 1988; Cranley, Hedahl and Pegg 1983; Marut and Mercer 1979). None of these studies followed women for more than six weeks postpartum. In a large Australian study (Brown and Lumley 1994) 790 women were surveyed between eight and nine months after the birth and having an emergency caesarean was associated with dissatisfaction for both primiparous and multiparous women in

univariate analyses. In a multivariate model high exposure to intervention (which included emergency caesarean birth); limited role in decision-making; not enough information and limited helpfulness of caregivers were the most predictive of dissatisfaction.

That having an instrumental birth had almost as negative an impact on women as having an emergency caesarean birth was an important finding of the present study. Saisto, Ylikorkala and Halmesmaki (1999) investigated the factors associated with tokophobia in one hundred second pregnancies in Sweden. They found that emergency caesarean or vacuum extraction were the most important contributors to this subsequent dread of childbirth. In an Austrian study conducted by Schindl, Birner, Reingrabner, Joura, Husslein and Langer (2003) instrumental birth was associated with a higher negative appraisal of birth than emergency caesarean both at three days after the birth and four months later. The study was designed to explore the psychological outcome of elective caesarean birth compared with vaginal and emergency caesarean birth. The authors concluded that, 'elective caesarean should be considered if there is any hint that vaginal birth may become complicated' (page 838) because emergency caesarean and assisted vaginal birth were experienced as 'an extremely unpleasant and painful event'.

Maclean, McDermott and May (2000) reported more distress during the birth and dissatisfaction with postnatal analgesia in women who had an assisted birth compared to other women. They also perceived themselves to be most at risk of serious injury. That women who had an emergency caesarean appraised their birth more positively was attributed to the fact that they have a longer length of hospital stay and therefore receive more physical and psychological care than women who have an assisted vaginal birth and who may go home the same day. Further research is needed to explore this phenomenon in more detail.

8.3.1.5 *Close contact with baby*

Holding her baby is an activity that the new mother can usually perform unaided, without instruction and with immediate expertise. It is the first 'mothering behaviour' practised after birth (Neu 2004) and as such confirms a woman's new role and status, but unfortunately not all women are able to experience this. There are many reasons why close contact with the baby is interrupted within the first hour following the birth. These include the pressure to move the couple to the postnatal ward and also the urgency to weigh the baby (Rapley 2002). In an observational study of 72 infants, Righard and Alade (1990) found that babies who were separated from their mothers to be weighed and dressed were significantly less likely to adopt correct sucking techniques than those who were uninterrupted in the first hour. In a study by Cartwright (1987a) women felt that

they were treated with kindness if they were 'allowed' to hold their baby immediately after the birth.

The final model for all women showed that not having close contact with the baby within the first hour after birth was predictive of being unhappy with the birth experience three years later. Women who had an emergency caesarean were most likely to experience separation from their babies at this time (33%) compared with all other modes of birth (16% of elective caesareans, 11% of instrumental births and 6% of spontaneous vaginal births; $p < 0.001$, $\chi^2 = 62.0$, $df = 3$). This remained true when women whose babies went to special care baby unit were excluded (24% of emergency caesareans, 11% of elective caesareans, 10% of instrumental births and 5% of spontaneous births; $p < 0.001$, $\chi^2 = 31.81$, $df = 3$). These findings are consistent with other studies (Bradley, Ross and Warnyca 1983; Fawcett, Pollio and Tully 1992; Rowe-Murray and Fisher 2001). In Brown and Lumley's survey (1994), not holding their baby soon after birth was a major source of dissatisfaction. Rowe-Murray and Fisher (2001) examined the effects of mode and place of birth on maternal emotional well being and time of first mother - infant contact. They found that women who did not have early contact with their babies exhibited mood disturbances that persisted for eight months after the baby's birth.

In this study, interviews with women revealed that separation from their baby was a source of sadness for many, particularly when there was no apparent reason:

I was a bit disappointed, 'cos I'd seen on telly people having caesarean, and they had given the baby to the woman, to hold herself, but they didn't offer him to me, they gave him to my husband [...] I was very disappointed that I couldn't hold him myself. Erm. but, they then went and put him in a cot, erm and put him in another room, and sent my husband through to that room [830].

For one woman holding her baby was a physical impossibility because the staff made her cross her arms over her chest and then they used her T-shirt to prevent her from moving:

They said I had to have my hand like that, and I sort of put my T-shirt over my arms 'cos they'd stopped me moving them and I wasn't I would have liked to have moved them when she'd come out to touch her, but they wouldn't they made me, while they'd got me stitched up they made me stay like that, and I assume that's just a medical procedure, I, I don't know [877].

One might associate such an act of restraint with a 1950s lunatic asylum rather than a modern maternity unit. It is reminiscent of a report more than 25 years ago: ‘They tied my arms and legs down, it was like a horror movie’ (Marut and Mercer 1979, page 264).

Where efforts had been made to reunite the woman with her baby in close contact, this was highly valued:

[husband] had held her and I was just sort of desperate to touch her. It was quite amazing – and they were very keen that as soon as they got me sorted out that they got her to the breast straight away [...] it was the most amazing experience [775].

Women in Erb, Hill and Houston’s study (1983) experienced considerable delay in holding their baby after caesarean birth. Only 4% of women held their baby in theatre, 8% within one hour of birth and 19% between one and three hours; 62% would have preferred earlier contact. Whilst it might be expected that practice would have changed considerably in recent years, there is still much room for improvement. In an American survey ‘Listening to Mothers’ (Maternity Centre Association 2004) data were collected from 1583 women who gave birth in 2000, about their attitudes, feeling, knowledge and experiences relating to childbirth. The survey found that only 40% of babies were primarily in the arms of their mothers in the first hour following birth and that 31% of babies were having ‘routine’ care by staff at this time.

Hillan’s contention that, ‘the performance of an emergency caesarean section will inevitably influence the amount of contact a mother has with her baby in the hour after birth’ (Hillan 1992a, page 36) is no longer valid as more caesareans are now performed under regional anaesthesia. Those caring for women following such surgery should ensure that mother and infant contact is optimized, even when the caesarean is performed under general anaesthetic. Immediate close contact with the baby should not be an optional extra. Rapley (2002) sums this up eloquently:

‘We need to see the togetherness of mothers and babies as a backdrop to what ever else has to take place – to be supported and sustained because of its enormous importance – not as something we ‘give’ them for a few precious moments’ (page 334).

Not having close contact with the baby soon after birth does not only affect how women feel looking back on their experience but also how they behave. In a study conducted in 1980 by McClellan and Cabianna, forty American women were randomly assigned to receive either skin to skin contact or routine care after elective caesarean. Women in the routine care group exhibited significantly less mothering behaviour and fewer positive maternal perceptions of their infant than women who had skin to skin contact, when the baby was one or two days old. These differences

were not persistent however at one month postpartum. Similar results have been obtained in a subsequent study (Anisfeld and Lipper 1983). Not all women have the same desire for physical closeness with their infants (Neu 2004): early contact should therefore be facilitated and encouraged but not forced.

8.3.1.6 *Support in labour*

The final model showed that not feeling that carers were supportive contributed to a negative long-term perception of the birth experience. It has been suggested that the introduction of technology into childbirth has resulted in less focus on supportive care in labour (Taylor and Copstick 1985; McNiven, Hodnett and O'Brien-Pallas 1992). Oakley (1992) argues that the professionalisation of nursing and midwifery is partly to blame for the move away from the traditional caring aspects of these roles. Further, Fahy (1998) asserts that a 'problem solving' approach to care has moved the focus of midwifery from 'with women' to a techno-rational science.

8.3.1.6.1 *What is support?*

Supportive care has been defined as:

Non-medical care that is intended to ease a woman's anxiety, discomfort, loneliness or exhaustion, to help her draw on her own strengths, and to ensure that her needs and wishes are known and respected (Simkin 2002, page 721).

Thus to provide such supportive care the attending midwife will need to be able to assess the woman's emotional and physical status and communicate with her in such a way that the woman feels able to express her hopes and fears for the birth. Her expectations and perceptions of what constitutes support will vary depending on her cultural norms (Holroyd, Yin-king, Pui-yuk, Kwok-hong and Shuk-lin 1997; Bowers 2002). Cobb (1976) considered the moderating effect of social support on the stresses of life. In his paper he defines social support as information leading the subject to believe he is 'cared for and loved', 'esteemed and valued' and 'that he belongs to a network of communication and mutual obligation' (page 300). He goes on to differentiate between physical support, which in his view leads to dependency, and social support, which encourages independent behaviour.

Defining social support in this way is particularly valuable when considering the needs of a woman in labour. Being with and staying with a woman during her hard work shows that her wellbeing is important and that she is worthy of her carer's time. It shows that the woman is the priority, the main concern and that the carer is obligated to stay with her because of the importance and value of the process she is going through. Being in the room with a woman, whilst not

guaranteeing that a relationship will be forged, at least makes it more likely than if the midwife were absent.

8.3.1.6.2 Presence and support

The difference between 'presence' and 'support' should be clearly differentiated yet they are obviously related. Not being physically present in the labour room removes the ability of staff to provide support to a woman. A midwife can be in the labour room, performing tasks which do not involve the woman, such as record keeping, yet continue to be supportive by showing that she is listening to and observing the mother's labour. Her presence is therefore supportive as she is on guard to readily switch from one activity to another. Another midwife may be completing the records but be oblivious to the woman's cues for assistance: she is therefore present but not supportive. Thus, some midwives find that routine practices get in the way of being supportive and others are supportive despite them. As stated by MacKinnon, McIntyre and Quance (2005), 'Nurses need to be aware that technical functions and "nursing the chart" to reduce legal liability may conflict with their support work, leaving women feeling alone and abandoned' (page 34).

Shields (1978) found that the most important issue relating to how women viewed their labour was the level of supportive care they received. The ability of the nurse to determine the woman's need for her presence was seen as crucial and contributed to the woman's overall satisfaction. Not all women want the midwife to be present all of the time and this has implications for the way that care is given (Mackey and Lock 1989). Being 'with woman' necessitates tuning into her individual needs (Hunter 2002).

8.3.1.6.3 Why support?

The ramifications of not providing continuous support to women in labour are considerable and include increased caesarean birth rates, increased use of analgesia, reduced satisfaction with childbirth experiences (Hodnett, Gates, Hofmeyr and Sakala 2003) and a longer length of labour (Klaus, Kennell, Robertson and Sosa 1986). Chen, Wang and Chang (2001) explored helpful and unhelpful nursing behaviours during labour in a convenience sample of 50 Taiwanese women. The study focused on women who had uncomplicated childbirth and some reported that nurses had had a negative impact on their ability to cope with the labour. Some nurses were authoritarian in their attitude towards labouring women and did not engender reassurance, offer information or emotional support.

Many studies have identified the contribution of supportive care to a positive evaluation of the birth (for example, Lavender, Walkinshaw and Walton 1999; Dickinson, Paech, McDonald and

Evans 2003; Green, Baston, Easton and McCormick). Hodnett and Osborn (1989) found that support in labour by a labour coach (monitrice) gave rise to an increased perception of control by women during the birth. Wolman, Chalmers, Hofmeyr and Nikodem (1993) undertook a randomised controlled trial in South Africa during which women in the treatment group received extra companionship (lay) during labour. They found that these women had a higher self esteem and fewer symptoms of postnatal depression or anxiety six weeks after the birth than women in the control group.

8.3.1.6.4 How much support?

Some studies have set out to investigate how much time maternity nurses or midwives spend undertaking supportive behaviour. Using a work sampling technique (observing work activities and classifying them using an activity list) McNiven, Hodnett and O'Brien-Pallas (1992) studied nursing care during labour making 616 observations. They found that only 9.9% of the nurse's time was spent providing 'supportive' care which comprised: physical comfort (0.3%); emotional support (2.6%); instruction/information (6.7%) and advocacy (0.3%). This was despite the fact that the majority of care was provided on a one-to-one nurse-patient ratio. The rest of their time was spent undertaking physical assessment, documentation and other indirect care activities such as meal breaks and meetings. Similar findings were observed in a study by Gagnon and Waghorn (1996) who reported that nurses caring for women in labour in a large Canadian hospital spent on average just 6% of their time providing supportive care (based on 3367 observations). There was no statistical difference between the time they spent with primigravida or multigravida or women with or without epidural analgesia suggesting that care was provided in a routine manner rather than according to the needs of women. A more recent study (Gale, Fothergill-Bourbonnais and Chamberlain 2001) observed similar working practices.

8.3.1.6.5 Barriers to providing support

Midwives may not always be able to give supportive care, for a number of reasons. For example they may be looking after more than one woman in labour and feel pressured to undertake her surveillance observations and record keeping. Feeling under stress, their ability to engage with the woman may be compromised. If the labour ward is usually busy then this 'getting the job done' behaviour may become the normal way of providing care to the extent that any desire to develop a relationship with the woman is forgotten, even when there is time to do so. In an extensive survey of practicing midwives (Sandall 1998) 26% of respondents reported feeling burnout. Multivariate analysis showed that working in a hospital based team was associated with the highest levels of burnout and that having a low sense of control over working practices contributed to this.

Lack of clinical confidence and experience may prevent some midwives from fulfilling the supportive aspect of their role. They may be able to provide supportive care when labour is progressing normally, but withdraw if the situation becomes complicated and demands knowledge and skills that are beyond her comfort zone (Green 2005b).

Many midwives do undertake a supportive role when caring for women, but may face conflict both morally and professionally in so doing. In a report of a qualitative pilot study, Sleutel (2000) described the dichotomy between the medical ‘controlling’ model of care and that which reflected a supportive and nurturing philosophy. It was felt that the nurse faced many moral dilemmas when trying to provide care in such a culture. Pressure to conform to the norms of the unit in which professionals practice is likely to influence both the manner and content of the care that is given. In her review of the literature on emotion work in midwifery, Hunter (2001) explored the implications for midwives of providing psychological care for women. She concluded that, ‘It is only by identifying the emotion work that midwives undertake, that its visibility will be increased and its significance acknowledged’ (page 442). She comments on how physical care dominates in the British health service and emotional work is often seen as an add-on only when physical care was completed.

Taylor (1991) asserts that one of the key issues to enable midwives to offer support to women is that they need to develop deeper self-awareness so that they can recognise issues that prevent them from forming a close relationship with women.

8.3.1.7 *Insensitivity*

One of the predictors of being unhappy looking back on the experience of birth was not perceiving that the staff were sensitive. To be sensitive to a woman’s needs the staff need to empathise with her situation and demonstrate that they understand her unique circumstances. Insensitive care is that which is provided in a ritualistic manner without thought for how it might be perceived by this particular woman. Chalmers (2002) provides further examples which include, ‘continuing conversations with colleagues whilst administering routine procedures and failing to respect privacy and dignity’ (page 80). Maternity carers also need to be sensitive to women’s cultural and religious beliefs and take account of their previous experiences that might impact on their current situation.

Care should be given in such a way that the woman is part of the interaction. In a study by Ogden, Shaw and Zander (1998) 25 women were interviewed about their birth between three and five years after the event. Staff were described as ‘insensitive’ at times when unknown people were

called in to provide care, leading to a sense of ‘anonymity’. When staff do provide sensitive care however, the impact is very positive. In a Swedish study women were given a questionnaire one day after the birth to explore the complex nature of the childbirth experience (Waldenstrom, Borg, Olsson, Skold and Wall 1996). Multivariate regression analysis revealed that perceiving that the midwife was sensitive to her needs contributed to a woman’s overall birth experience. Other significant variables included: duration of labour, pain, expectations about the birth, involvement in the process and invasive procedures (emergency caesarean, assisted vaginal birth and episiotomy).

8.3.1.8 *Looking back and parity*

It remains unclear why multiparity was a significant predictor of feeling unhappy with the birth experience three years after the event. Most studies have concluded that primiparous women are more likely to have negative perceptions about their birth than multiparous women (for example, Waldenstrom 1999) with one exception (Hillan 1992c). Indeed, in univariate analysis in this study, primiparous women were significantly more likely to be unhappy looking back on their birth experience than multiparous women (17% versus 8% respectively; $p < 0.001$, $\chi^2 = 13.16$, $df = 1$). However, primiparous women are more likely to experience interventions and complications during their labours, and when these factors were considered in a multivariate model, parity was no longer significant (see table 5.7).

That multiparity became a significant predictor of a negative perception of the birth when all three models were combined may have been an artifact of the way the final model was built. Each of the previous models (antenatal, labour and birth and postnatal) were painstakingly developed through systematic inclusion / exclusion of significant variables. However, the final model was a ‘one stage’ compilation of all the significant variables from each of the models. To check this possibility, the logistic regression was rerun using the same variables but using the ‘backward stepwise’ command. This means that the computer is asked to build a model by starting with all the variables and then removing those with the least impact on how the model fits the data, one at a time (Field 2000). However, multiparity remained in the model as a significant predictor. It would therefore seem that there are conditions associated with being multiparous and feeling negative about the birth that were not captured by the variables in the model. These might include: the first birth being more momentous, less likelihood of having another baby, financial problems, difficulties with childcare, conflicts within the ‘marital’ relationship, current employment issues and so on.

8.3.1.9 *Variables that did not contribute to the model*

- *Looking back and control*

It is surprising that the labour and final model do not contain any variables that relate directly to women's sense of control. Many studies have found control variables predictive of childbirth satisfaction (Goodman, Mackey and Tavakoli 2004; Waldenstrom 1999). As can be seen from table 5.5 in Chapter 5 there were three significant control variables that related to how a woman perceived her birth experience. These were, 'control of what staff were doing' to her during labour, 'control during contractions' and 'control of behaviour' during labour. Each of these were entered into the developing model. 'Control during contractions' did not make any significant contribution to the model. 'Control of behaviour' made a brief but weak appearance and was then rendered insignificant by the introduction of 'length of labour' into the model. 'Not always feeling in control' of what staff were doing to a woman made a consistently significant contribution to the model until the variable 'being left alone' when it worried her during labour was introduced. Being left alone in labour may generate a feeling of lack of control. When left without professional care, there is no one to verify that labour is progressing within normal parameters or to confirm that she is coping well or otherwise with her contractions.

- *Looking back and pain*

Pain scores were introduced into the labour model early in its development in light of the research that supports its significant contribution to satisfaction with the birth experience (for example, Waldenstrom, Hildingsson, Rubertsson and Radestad 2004). However, when the variable 'not satisfied with the way she dealt with labour pain' was introduced into the model, the actual level of pain experienced became insignificant suggesting that the perception of her own ability to cope was more important than the pain itself. In the final model, being shocked by the level and / or nature of labour pain was more important: having labour pain that was not as expected was associated with a 2.89 increase in the odds of looking back negatively on the experience of birth whereas satisfaction with the way she dealt with it became insignificant. Perhaps being poorly prepared for the intensity of labour pain is easier to acknowledge than not being able to cope with it.

In an Australian study (Dickinson, Paech, McDonald and Evans 2003) designed to assess maternal satisfaction with the childbirth experience and pain relief in labour, 992 women were randomised to receive either continuous midwifery support or an epidural. Although satisfaction with analgesia was higher in the epidural group, with regard to overall satisfaction, there was no difference

between the groups suggesting that women evaluate the two aspects of their experience independently. The women in 'Great Expectations' who did not use any analgesia were the most satisfied six weeks after the birth (Green, Coupland and Kitzinger 1998). In her systematic review of the literature related to pain and satisfaction with the birth Hodnett (2002) found that pain and its relief were not as important predictors of a positive experience as the attitudes and behaviours of the staff.

8.3.1.10 The emergency caesarean birth model

Three predictors of feeling unhappy looking back were identified for women who had an emergency caesarean. They were, 'not perceiving the staff as supportive', 'not always being treated with respect and as an individual' and 'feeling that her life was in danger'. The issue of staff providing supportive care has already been discussed, therefore the next section explores the remaining two issues.

- *Not always treated as an individual and with respect*

The decision to ask women if they had felt treated with 'respect' and treated as an 'individual' was inspired by the Audit Commission's survey of women's views of maternity care (Garcia, Redshaw, Fitzsimons and Keene 1998) in which between fifty and sixty percent of women 'strongly agreed' that they were cared for this way. Treating clients with respect and as an individual is a fundamental standard of professional nursing and midwifery care in the UK (Nursing and Midwifery Council 2004b). There are no studies that specifically explore how women who have an emergency caesarean perceive their intrapartum care. Some studies do explore this group of women's experiences but not how staff contributed to them (Ryding, Wijma and Wijma 1997; Wijma, Ryding and Wijma 2002). However, there are studies whose findings shed light on how women perceive their intrapartum care. In a study exploring the experiences of 10 Swedish women who experienced complicated childbirth (Berg and Dahlberg 1998) the need for women to be seen and treated as an individual was central to their experience. If the carer did not listen to their concerns, they felt disappointed and rejected. In an earlier study, similar findings were reported (Field 1987) when 44 postnatal women were interviewed to identify the positive characteristics of labour and delivery nurses. The themes identified included providing personalised care and listening and respecting their opinions. Further, in Bryanton, Fraser-Davey and Sullivan's study (1994) the nursing behaviour that was rated the highest was making the woman feel cared for as an individual and in a study by Manogin, Bechtel and Rami (2000) being treated with respect was ranked five out of 63 nursing behaviours.

- *Feeling her life was in danger*

It is not known to what extent the women in this study had a pre-existing fear that they or their baby might die in childbirth. They may already have been suffering from symptoms of anxiety or pre-existing tokophobia. Odent (2003) argues that fear of death is a common phenomenon even during physiologically efficient labours. Field and Widmayer (1980) found that women who had an emergency caesarean birth under general anesthetic were more likely to express fear that either they or their baby might die during childbirth, than women who gave birth vaginally. Considering their data it is impossible to distinguish whether it was the emergency surgery or the need for a general anaesthetic that contributed to this apprehension: fear of general anaesthetic is reportedly widespread (Bailey and Jones 1997).

Flint (1986) asserts that, 'having an operation is the nearest brush with death that most of us experience in our lives' (page 120). Those who care for women undergoing emergency caesarean should not underestimate the potential for women to fear for their lives at some point during its anticipation. Marut and Mercer (1979) reported that 75% of women who had an emergency caesarean expressed feelings of 'torture' and 'fear of death' (page 264) and that these fears were extenuated in women who had a general anaesthetic. A perceived threat to life during childbirth has also been associated with the development of post-traumatic stress symptoms (Czarnocka and Slade 2000) and post-traumatic stress disorder (Wijma, Soderquist and Wijma 1997) in non-caesarean births.

8.3.2 Sequelae of emergency caesarean birth

The focus of this section is on postnatal care, breastfeeding, relationship with the baby, emotional well being and decisions about subsequent births.

8.3.2.1 Postnatal care

Many women in this study felt isolated on the postnatal ward because they were given a single room. This is unlikely to continue to be a major problem in the future following the publication of the National Institute for Clinical Excellence (NICE) clinical guideline for caesarean section (2004), which advocates that women who do not have any complications following their caesarean should be offered early transfer home (24 hours post operative). The current length of stay for women who have a caesarean is three to four days compared with one to two days after vaginal birth (Government Statistical Service 2005).

Not all women want to go home so early however, and many need help undertaking their role as mother so soon after major abdominal surgery. Women in this study who had an emergency caesarean birth were less likely to be offered help with baby care than women whose surgery was planned. Overall, assistance was infrequently offered during the postnatal stay. In Hillan's study (1992b) it was reported that 25% of women were critical of the midwifery support on the postnatal ward, with most women who had had an emergency caesarean (68%) stating that they found it difficult physically to perform the activities required to care for their baby. A study which explored the experience of primiparous women with regard to hospital postnatal care (Moss, Bolland Foxman and Owen 1987) reported that women who had a caesarean birth (elective and emergency combined) were more dissatisfied with their postnatal stay than other women. Further evaluation of the care of women following caesarean birth is needed.

8.3.2.2 Breastfeeding

Women were asked questions about breastfeeding at six weeks (in 'Greater Expectations?') and three years after the birth (in the follow up study). Multiparous respondents at both time points were less likely to have initiated breastfeeding if they had an elective caesarean birth. Multiparous respondents in 'Greater Expectations?' were also less likely to be still breastfeeding six weeks after the birth if they had had an emergency caesarean, compared with women who had a spontaneous vaginal birth. This trend whilst present in the follow up study was not significant and this is likely to be a result of fewer respondents. Many studies that examine breastfeeding practices and mode of birth only include primiparous women (Wright and Walker 1983; Kearney, Cronenwett and Reinhardt 1990; Rowe-Murray and Fisher 2001, 2002) and most do not differentiate between elective and emergency caesarean (Tamminen, Verronen, Saarikoski, Goransson and Tuomiranta 1983; Samuels, Margen and Scheon 1985; Janke 1988; Kearney, Cronenwett and Reinhardt 1990; Vestermark, Hogdall, Birch, Plenov and Toftager-Larsen 1990; Rowe-Murray and Fisher 2001, 2002; Scott, Binns, Graham and Oddy 2006).

The literature is divided regarding the impact of caesarean birth on the initiation and duration of breastfeeding. A study conducted in the United States (US) concluded that women who had a caesarean were less likely to start breastfeeding than other women (Samuels, Margen and Scheon 1985) and in a Brazilian study women who had a caesarean birth were more likely to have stopped breastfeeding by two months than women who had a vaginal birth (Procianoy, Fernandes-Filho, Lazaro and Sartori 1984). Women in an Australian study (Scott, Binns, Graham and Oddy 2006) were significantly less likely to be exclusively breastfeeding when they left hospital, if they had a caesarean birth. In a large UK study primarily focusing on the use of analgesia (Rajan 1994) 1149 women were sent postal questionnaires six weeks after the birth and 93% responded. Women who had a caesarean birth were significantly less likely to be breastfeeding at this time point than other

women. In the few studies that did differentiate between emergency and elective caesarean, there is some evidence from the 1980s that emergency caesarean is associated with less likelihood of breastfeeding in the first week of life (Bradley, Ross and Warnyca 1983; Cranley, Hedahl and Pegg 1983). More recent studies do not support this finding (Durik, Hyde and Clark 2000; Green, Baston, Easton and McCormick 2003). Changes in clinical practices, including the reduction in the use of general anaesthetics for caesarean and the emphasis on early close contact between mother and baby, are likely to contribute to fewer reports of differences between breastfeeding success and mode of birth in recent years.

Further studies, that combine emergency and elective caesarean in the analyses, do not associate mode of birth with initiation or duration of breastfeeding. In one US study women who had intended to breastfeed were interviewed antenatally and again between one and three weeks after the birth of their baby (n=187) (Buxton, Gielen, Faden, Brown, Paige and Chwalow 1991). They found initiation and early cessation of breastfeeding was not related to having had a caesarean. Further studies have also found that duration of feeding was not related to caesarean birth (Wright and Walker 1983; Janke 1988; Kearney, Cronenwett and Reinhardt 1990; Vestermark, Hogdall, Birch, Plenov and Toftager-Larsen 1990). In a study examining the factors affecting breastfeeding success among 518 Mexican women (Scrimshaw, Engle, Arnold and Haynes 1987), it was reported that women who had a caesarean birth had greater difficulty getting access to their baby, but there was no exploration of how mode of birth related to method of feeding. Tamminen, Verronen, Saarikoski, Goransson and Tuomiranta (1983) examined practices in Finland and found that women who had a caesarean were less likely to initiate breastfeeding but just as likely to continue as other women and similar findings were reported by Mansbach, Greenbaum and Sulkes (1991).

8.3.2.3 *Relationship with the baby*

Women in this study who had an emergency caesarean were not more likely to have relationship difficulties than other women and this finding was supported by other previous studies (Bradley, Ross and Warnyca 1983; Cranley, Hedahl and Pegg 1983; Field and Widmayer 1980; Garel, Lelong and Kaminski 1987; Kochanevich- Wallace, McCluskey-Fawcett, Meck and Simons 1988). There were situations, however, that could lead to potential relationship problems for some women who have an emergency caesarean, including not having close contact with the baby after the birth and feeling as though they were not part of the birth process.

8.3.2.4 *Having another baby*

In this study, women who had an emergency caesarean birth were not less likely to have another birth in the intervening three years than other women. In the study by Garel, Lelong and Kaminski

(1987) primiparous women were asked about their wishes for another baby three to six days after the birth. Women who had an emergency caesarean were significantly more likely to say that they did not want another baby (12/102) compared with women who had a vaginal birth (3/102). The same women were followed up one and four years later. At one year after the index birth, there were no differences between the groups regarding the total number of children each woman aspired to have. However after four years, the women who had had a caesarean (emergency and elective caesarean presented together) were more likely to have infertility problems than women who gave birth vaginally. Infertility following caesarean birth is also reported in other studies from the 1980s (Hemminki, Graubard, Hoffman, Mosher and Fetterly 1985; Hall, Campbell, Fraser and Lemon 1989).

Gottvall and Waldenstrom (2002) used data from a Swedish cohort study to explore whether a negative birth experience (measured two months after the index birth) influenced whether women went on to have another baby in the following eight to ten years. Regression analysis identified three factors that explained future reproduction: a negative birth experience; age 35 years or more and being of single status. Having an average or good birth experience was associated with a 1.7 fold increase in odds of having another baby. In a recent study (Porter, Bhattacharya, Teijlingen 2006) it was reported that 45% of women revised their planned family size after the birth of their first child and that of women who had a caesarean (emergency and elective combined) represented the largest proportion (49% versus 41% of women who had a spontaneous birth, $p=0.041$). The same research (Bhattacharya, Porter, Harrild, Naji, Mollison, Teijlingen, Campbell, Hall and Templeton 2006) also found that most women who did not have a subsequent baby, irrespective of mode of birth, deliberately chose not to do so and that mode of birth did not contribute to involuntary infertility. This finding is in contrast to previous research and may be related to advances in surgical techniques and an increased propensity to intervene sooner rather than later: further research is needed in this area.

For women in the current study, mode of birth did influence how they felt about how a subsequent baby should be born, with 30% of the primiparous women and 48% of multiparous women who had had an emergency caesarean stating that they would want an elective caesarean for their next birth. Schindl, Birner, Reingrabner, Joura, Husslein and Langer (2003) reported that in their study of 1050 women, of those who had an emergency caesarean, 30% wanted an elective caesarean next time. However, women who had an elective caesarean for medical reasons were much more likely to want a repeat caesarean (66%) than the women who had an elective caesarean for medical reasons in the current study (25% of primiparous women and 45% of multiparous women).

8.3.2.5 Emotional well being

It has already been discussed that women in this study who had an emergency caesarean were more likely to evaluate the birth negatively than other women. However, they were not more likely to screen positive for postnatal depression or have lower self esteem. Shearer (1989) speculated about the reasons why women who had caesarean births were not reported to develop depression in a study by Culp and Osofsky (1989). She thought that the relatively high rate of caesarean births has normalised surgery as a commonplace mode of birth. Shearer also suggested that women are very 'resilient' to both emotional and physical stress and made the comment:

Just as a caesarean rarely leads to chronic physical illness...we should not expect it to lead to chronic emotional illness (page 58).

In a more recent study (Durik, Hyde and Clark 2000) where no effect on maternal well being was observed by mode of birth, the authors also referred to women's 'resilience' in the face of surgical birth.

The psychological impact of obstetric intervention was explored in a prospective study of 272 primiparous women by Fisher, Astbury and Smith (1997). They reported that women who had a caesarean birth had increased symptoms of depression and irritability in the early postpartum period (mean 5.42 weeks) compared to during pregnancy (mean gestation = 33.09 weeks). Unfortunately women who had emergency and elective caesareans were grouped together for analysis. The self esteem of women who had a caesarean was adversely affected whereas women who had either a spontaneous or assisted vaginal birth experienced an increased self esteem. An earlier study came to the same conclusions, again after combining elective and emergency caesarean for analysis (Cox and Smith 1982). Studies that did differentiate between emergency caesarean and other modes of birth (Chen and Wang 2002; Durik, Hyde and Clark 2000) did not report any reduction in self esteem associated with emergency caesarean birth.

8.3.3 Women's perception of their intrapartum carers

Women in this study used more negative words to describe the staff in 2003 than in 2000. It is likely that over time the 'halo' effect created by the birth of their child and the relief that their labour was over had diminished. They were then more able to objectively appraise the way that they had been cared for and be critical of the staff as time separated them from any loyalty they might have had for the professionals who assisted them during the birth.

How women in the present study perceived the staff was an important factor in their evaluation of the birth. Crow, Gage, Hampson, Hart, Kimber, Storey and Thomas (2002) found consistent evidence that the most important factor with regards to satisfaction is the patient-practitioner relationship and information giving. Such relationships and perceptions are likely to be influenced by women's attributional styles and this would be an interesting avenue for exploration.

8.3.3.1 *Intelligent guardianship*

The conceptual model 'intelligent guardianship' was derived from the interview data with women four years after the index birth (figure 7.2, page 165). It reflects the role that maternity carers could adopt to enable them to engender trust from the women in their care. Other models have been described in the nursing literature, for example 'skilled companionship' (Campbell 1984) in which the nurse accompanies the patient on a journey, knows when not to impose and involves the nurse 'being with' not just 'doing to' (page 50). 'Intelligent guardianship' whilst embracing all of these ideals takes the carer to another level of commitment in which the relationship is protective, long term and legally binding. The woman is entrusted to the carer and the carer must uphold their office: a guardian will not renege on their duty. To undertake their role the carer requires more than clinical skill, but must use emotional and intellectual intelligence to understand the woman's unique circumstances and interpret the information gathered in the provision of bespoke maternity care. The carer engages with the woman projecting empathy and understanding, competence and confidence through their demeanour.

Lundgren (2004) synthesised the results of four studies exploring women's experience of childbirth. An emerging theme of this work was the midwife as 'anchored companion' by which the midwife shares responsibility with the woman to ensure that she does not exceed her own personal limits, a unique feature of their relationship. In the original study (Lundgren and Dahlberg 2002), one midwife described the importance of making the woman aware that she cares about her as an individual, to aid development of a trusting relationship, 'You are not only a patient for me, you are the only one for me right now' (page 159).

Trust is a complex concept particularly when applied in a healthcare setting. We often talk about earning trust, yet in encounters with professionals, 'patients' literally put their life in the hands of people they have no prior knowledge of. As with airline pilots, faith in the system in which they work and the qualifications that they hold is often all they have to go on. Yet having trust in health professionals is fundamental to a positive experience. Drew, Salmon and Webb (1989) asked 15 postnatal women to identify aspects of labour and postnatal care that they considered important. A list was then compiled which a further 183 postnatal women ranked in order of importance to

them. Of considerable importance was having support from someone who can be trusted. Kennedy (1995) explored the essence of nurse-midwifery care with six women using a phenomenological approach. She described the development of a relationship between the woman and her carer based on mutual respect and trust, how the women felt that 'the right thing would be done' (page 416) even when care was handed over to another nurse-midwife.

The model 'intelligent guardianship' comprises 'engagement', 'perceived competence' and 'demeanour'. It is important that the 'intelligent guardian' uses all three aspects together to provide care that meets the woman's clinical, emotional and social needs. Synthesis of these attributes will enable the woman to trust that her carers are focused on her, know what they are doing and convey respect. If any one of the model's facets is missing or underdeveloped there is the potential for the woman to feel that her care was less than optimal. For example, if an anaesthetist involved the woman in decisions and took account of her wishes, appeared competent by swiftly administering spinal anaesthesia yet was cold and abrupt in her manner, an awkward atmosphere could have been created that detracted from the joy of the anticipated birth.

- Engagement

For staff to engage with a woman they must have some physical presence, but being in the room with a labouring woman does not necessarily mean that staff are tuned into how she feels or what her support needs are. Even during conversations with women, some midwives block a woman's request for information by talking in platitudes; a phenomenon described by Kirkham (1989) as 'verbal asepsis' (page 125). Women in labour are able to discern when staff are really 'with woman'. In the study by Carlton, Callister and Stoneman (2005) some women described the nurse as 'detached' when she did not fully engage and provide supportive care (page 149). In a study by Leamon (2001) one woman described the midwife as 'physically present but faceless' (page 106): she did her job but no relationship was developed.

Women value being cared for by staff who can communicate effectively with them and appreciate the opportunity to get to know the nurse during labour (MacKinnon, McIntyre and Quance 2005). In a study by Kintz (1987) involving 78 women who were asked to identify the helpfulness of nursing procedures during labour, it was concluded that, "interpersonal skills are at least as important as technical skills, if not more so" (page 130). Hallgren, Kihlgren and Olsson (2005) assert that the way that midwives relate to expectant parents should be evaluated and that it is an ethical responsibility to get this aspect of care right.

This study found that how professionals communicate with each other has ramifications for how women perceive their care. Such interactions impact on the level of commitment perceived by the woman (Peltier, Schibrowski and Westfall 2000). They also give her a measure of the respect that professionals hold for each other which may relate to their perceived competence and skill.

- *Perceived competence*

Ability to engage with a woman may also relate to midwives' confidence in their own clinical proficiency. This is observed in students who are learning new skills and focus on mastering the technical aspects of their role before they can see and interact effectively with the woman behind the equipment. For some midwives this phenomenon persists post-registration and is manifest in the sort of care given by the 'cold professionals' in McCrea, Wright and Murphy-Black's study (1998) where the midwives care for the machines rather than the woman. Clinical competence has been identified as an area of concern. In a UK study designed to determine midwives' own perceived competence to manage common obstetric emergencies, 43.8% failed to meet the 'average' score previously determined by senior staff (Persad, Hiscock and Mitchell 1997).

Yet the level of competence demonstrated by maternity carers impacts on how the birth experience is evaluated. In a Canadian study of 44 families (Field 1987), couples were interviewed between one and three days after the birth about their satisfaction with care in labour and postnatally. Field reported that if women were confident in the competency of the caregiver their satisfaction increased. The relationship between competence and satisfaction is likely to be more complex however with the majority of women perceiving their carers to be competent, unless they have experience that suggests otherwise. Women who are satisfied with the way the birth went are likely to assume their carers were competent even if they had not had any reason to question it.

Being competent to provide maternity care does not just mean that the practitioner has a working knowledge of the process of labour but also that she understands the importance of supportive care. Her knowledge should be sufficiently honed that she can go into any situation and know immediately how to provide effective support to the woman in labour. However, her knowledge of what women need from the professionals who attend her should compel her to engage with the woman to find out what her specific requirements might be.

- *Demeanour*

The way that staff react to the need for emergency caesarean will influence how the woman evaluates her experience. Being able to project an air of calm, efficiency and competence will depend on the experience of the caregiver, their values and knowledge. It will also depend on the

support that the staff give and receive from each other and their confidence in each other's clinical skills. Staff need to be able to assess how a particular procedure such as emergency caesarean birth might impact on a particular woman to provide care that is sensitive to her needs.

In Mackey and Stepans (1993) study of women's evaluations of their labour and delivery nurse, women were complimentary about the manner in which care was given, with one woman stating that, "It's not what you do it's the way that you do it" (page 415). The demeanour of the nurses had an effect on the women; nurses who were calm when they gave care exerted a calming influence on the women. Ten percent of the women (n=6) were unhappy with their care and all of these identified the nurse's manner as being unfavourable, including being more concerned about the technical aspects of care, lacking warmth and not talking to them. Kennedy (1995) also described how the nurse-midwives who cared for the women in her study projected an aura of calm, 'her demeanour watchful but unruffled' (page 416).

The way in which care is given influences how that care is perceived. Propst, Schenk and Clairain (1994) used a phenomenological approach to explore the feelings of nine primigravid women on the care they experienced during labour. One of the main themes to emerge from the analysis was 'nurse's positive manner/being'. The women felt that the manner in which care was given, including the tone and inflection of the voice and nonverbal behaviour, validated the impression of the nurse's trustworthiness. Bowers (2002) explored women's perceptions of professional labour support through a review of the qualitative literature. She concluded that women judged their carer's ability to provide support as a function of the carer's interpersonal communication style: the manner in which they communicated with women. In a Canadian study to determine which nursing behaviours women found most helpful during labour (Bryanton, Fraser-Davey and Sullivan 1994), 80 women rated 25 labour nursing behaviours, three days after the birth. The top-ranked behaviour was, 'made me feel cared about as an individual', the second was, 'praised me' and the third was, 'appeared calm and confident'. Using humour and speaking quietly were also suggested by women to be nurse attributes that helped them cope with contractions.

8.4 Implications of findings

8.4.1 Implications for maternity service delivery

8.4.1.1 *Antenatal care*

Although the focus of this study was on women's experience of emergency caesarean birth, some issues were highlighted that have implications for antenatal care. Women need access to information about what to expect in labour. They need to be informed about what to expect if they need a caesarean birth and how they can be involved in the decisions about their care. They should be encouraged to voice their preferences and discuss how their hopes for the birth can be achieved irrespective of the mode by which it is achieved.

Staff caring for women during pregnancy can provide sensitive, individualised care by listening to how the woman talks about her impending birth. As with 'Elizabeth' in Chapter 4, when a woman expresses her concerns about her future labour, she needs to be listened to and have the opportunity to discuss her feelings in more detail. Women are increasingly worried about the thought of pain in labour (Green, Baston, Easton and McCormick 2003) and this has ramifications for their long term perceptions about the birth, as reported in Chapter 5.

8.4.1.2 *Labour*

Midwives need to be able to provide one-to-one care to women in labour, so that they receive both physical and emotional support. This should not just be a luxury afforded in advanced labour. Time should be available to enable the midwife and woman to discuss options for care and develop a relationship. This time is an investment for the advanced stage of labour when the woman will need to trust and act on the midwife's words. For one-to-one care to become a reality, discussions need to take place between all members of the team, including managers with a responsibility for maternity service strategy. Realisation of this aim has significant implications for resources and the configuration of maternity services. It might be necessary to consider the use of Doula's as part of National Health Service provision: the application of this model would need a randomised controlled trial in the United Kingdom setting to evaluate its effectiveness.

The findings of this study are applicable to the care of all women during labour and birth, whether or not they go on to have a caesarean birth. Maternity carers need to reflect on the routine nature of many aspects of intrapartum care and how these practices influence women's birth experiences. For example, the first hour after birth is a potentially enchanting time during which the baby is usually alert and able to return its mother's gaze. To squander this unique opportunity by

separating the baby from its parents in the pursuance of tasks such as weighing, washing and dressing is to deny them the chance to explore their new baby and make discoveries for themselves.

Considering ways in which the birth environment hinders close contact following the birth is also important. For example, if a woman needs to have her perineum sutured, can her birth partner sit and hold the baby in close proximity to its mother where it can be seen and touched during the procedure? Equipment such as monitors and drip stands often clutter the area around the woman's bed deterring the partner from getting too close. A reduction in the use of continuous fetal monitoring, induction of labour and epidural analgesia would ultimately lead to a reduction in such clutter, but meanwhile, maternity carers should make a conscious effort to remove or reposition equipment that is no longer in active use.

Inevitably, situations occur during some women's labours that necessitate previously unknown professionals entering the birthing room. Maternity staff need to develop their own strategy for managing this situation so that the woman and her partner remain the central focus, rather than the machines and the task in hand. Women in this study identified how being included in discussions and talked to, rather than about, helped them feel that they were respected, as voiced by 'Rachel' in Chapter 4, 'they treated me as an intelligent equal'. A personal introduction made with eye contact and a smiling face takes seconds and yet can make the difference between thinking either that her life is in danger or that she will soon be fulfilling her role as new mother.

All maternity staff involved in the care of labouring women need to act in ways that demonstrate to women that they are there to support their efforts and take account of their wishes. Midwives currently provide the majority of intrapartum care in the United Kingdom but this does not preclude other professional or lay carers from examining their behaviour towards women in labour. It is paramount that there is mutual respect between colleagues. In the interviews women were acutely aware of tensions between professionals and when they were able to identify that staff worked well together, they felt reassured and relaxed.

The Midwives' rules and standards (Nursing and Midwifery Council 2004a) do not make the supportive role of the midwife explicit. This document currently contains a definition of a midwife (page 36) developed by the International Confederation of Midwives (ICM) in 1990 which fails to include the very essence of what midwifery should be about: providing emotional and social support to women as well as meeting their physical and educational needs. With such a definition in such an important document, it is not surprising that many midwives focus on the technical

aspects associated with their role rather than its humanistic components. This definition has recently been updated and adopted by the ICM (International Confederation of Midwives 2005) and now includes the phrase 'works in partnership with the woman to give the necessary support, care and advice...' which is much more reflective of a philosophy of woman centred care based on mutual respect. However, the Midwives' rules need updating to reflect this change.

8.4.1.3 *Caesarean birth*

A multi-disciplinary group should be established within each maternity unit to look at how the woman's experience of caesarean birth can be enhanced. Starting with elective caesarean birth the group could explore such issues as enabling the woman to be free to move her arms and hold her baby. She should be asked if she wants to see her baby born, an option that is currently being practiced at the Queen Charlotte's and Chelsea hospital in London as reported in the Guardian (Moorhead 2005). There is the potential, however, that if caesarean birth can be 'every bit as magical' as a natural birth, as the headline suggested, that this could accelerate the rise in the number of caesarean births performed for maternal request: this work needs to be evaluated. Every woman and baby should have the opportunity for close contact after birth, irrespective of its nature.

Particular attention should be paid to the physical environment and how it can be adapted to make it possible for the woman to have her baby next to her whilst the surgery is completed and to breast feed if she wants to. As many maternity units make progress towards achieving the Baby Friendly Initiative standards (Unicef 2004), women who have a caesarean birth should also be enabled to have skin to skin contact with their babies. A recent Cochrane review of the evidence relating to this practice (Anderson, Moore, Hepworth and Bergman 2003) concluded that there are clinical benefits, including breastfeeding duration. Another review found no evidence that early skin to skin causes any negative effects (Renfrew, Dyson, Wallace, D'Souza, McCormick and Spiby 2005).

8.4.1.4 *Postnatal care*

Women need the opportunity to understand what happened to them during their labour and why an emergency caesarean had been the most suitable option at that time. For some women this outcome may have been a considerable shock and they might benefit from specialist support to help them come to terms with what happened to them.

As mode of birth influences how women feel about subsequent births, this issue should be discussed during the postnatal period. Although the issue can and should be re-visited during the next pregnancy, the prospect of being able to have a spontaneous vaginal birth following another pregnancy, and the advantages of so doing, should be suggested as a viable option before the woman leaves hospital. This will enable her to assimilate this information over time rather than making a hasty decision in a busy antenatal clinic. Further research is needed to explore hospital postnatal care and how it can be developed to meet the needs of women following emergency caesarean birth.

8.4.1.5 Implications for other healthcare settings

This research also has wider implications for other professional groups providing care in an emergency setting. For example, patients admitted to accident and emergency departments are likely to benefit from being cared for by staff who are able to develop a relationship with them instantly through engagement and effective communication. Such staff would ensure that this aspect of their work was fundamental to the patient's experience and combine it with competent professional practice. They would be aware of their demeanour and the messages that their body language conveyed, demonstrating their concern with the seriousness of the situation but maintaining a personal and optimistic approach. Patients receiving emergency care are likely to encounter care from many different disciplines, each having the potential to make a positive or negative impact on their experience. The patient's journey should be examined to identify who is potentially involved and how they can facilitate a satisfactory experience in the circumstance. This philosophy of care could be appropriately applied in many health and social care settings.

8.4.2 Implications for education

Being able to provide and receive support is a life skill that should be developed and fostered. Student midwives need to be given opportunities to enhance their self-awareness and identify situations where they might themselves feel vulnerable and where their ability to engage with a woman might be compromised. Students often focus on the need to learn the technical skills requisite for competence as a midwife. These are multiple and include assessing gestational age, identifying the presenting part of the fetus, locating its position, assessing cervical dilatation, detailed knowledge of drugs, managing intravenous infusions, initiating and interpreting cardiotocography, perineal suturing, adult and neonatal resuscitation and maintaining contemporaneous records. This list is far from exhaustive, yet it can be seen how students feel preoccupied with attaining them, perhaps at the expense of fine tuning their ability to provide supportive care.

I would advocate that time is made within pre-registration midwifery programmes to focus specifically on providing support to women. Specific competencies should be developed that capture the elements of support and these should be assessed, throughout the programme, at successive academic levels and across the childbirth continuum (in the antenatal, intrapartum and postnatal periods). Initially, the student would have dedicated clinical, university and personal study time to undertake *only* supportive care and reflect on those factors that enhance or impede their success at providing it. As they progress through the programme, students would then be expected to develop their technical expertise *whilst continuing* to provide supportive care so that, by the end of their course, they never separate the two. There are implications for the development of assessment tools that elicit information regarding both theory and practice as their integration would be key to the successful implementation of this development.

It would be an essential part of this development that student midwives were not only able to support women but that they understand why being supportive is important. Success would be dependent on effective clinical mentorship, sensitive personal and academic supervision and a safe environment in which to experiment and share skills. It would be crucial that all the midwives involved in the preparation of 'supportive' midwives share the philosophy that supportive care is fundamental to women having a positive perception of the birth. To act as role models to students, they would also need to be 'intelligent guardians' thus on going development of the requisite skills should be incorporated into continuing professional development for both clinical midwives and midwifery lecturers.

Whilst it would be a valuable and worthy endeavour to educate midwives to be able to provide supportive care to a high standard, this could potentially be undermined if women were cared for by members of other professional groups not demonstrating similar skills. It would therefore be prudent to create opportunities for shared learning that would also foster a mutual respect for each others' roles and expertise. Cross-fertilisation between professional groups should also be facilitated beyond professional registration and should be a principle underpinning continuing professional development, particularly at a local level.

Student midwives need to learn not to make assumptions about what women might want or expect during pregnancy, labour or during the postnatal period. They need to be able to make accurate assessments of women's hopes and fears and be able to translate such information into personalised care. Midwives often fail to ask questions for fear of the answer they might receive, either because they lack the skills and confidence to fulfil women's needs and wishes or because they know that the system of maternity care in which they work would not be able to support them.

8.4.3 Implications for maternity policy

Subsequent to the commencement of this study the House of Commons Health Committee (2003) published a report examining the provision of maternity services. They wrote:

‘The information gathered from discussions of previous experiences could be vital to the development of maternity services, particularly in relation to caesarean birth’ (page 41).

The current study has provided women with the opportunity to speak freely about their experiences of emergency caesarean birth. Their perceptions of the staff who cared for them during labour highlighted the need for them to be cared for with ‘intelligent guardianship’. Future maternity policy in the UK should endorse the need for women to be cared for by professionals who have the competence to understand when the course of labour begins to deviate from normal and the authority to take effective and appropriate action. They should be cared for by staff who understand that the expectations and experiences of childbearing women have the potential to influence their evaluation of the birth, and how this process can be fundamentally altered by the care they receive. Thus when a woman needs a caesarean in labour she should continue to be cared for by registered midwives who have undergone a programme of education that has prepared them to be her ‘intelligent guardians’. Pending evaluation of their effectiveness in the UK, future maternity services may benefit from the addition of Doulas to the health care team, to supplement current provision. There should be no compromise, however, with the drive towards one midwife to one woman in labour to enable women to build a relationship of trust with a midwife who will be with them during the birth.

Each maternity unit should continually evaluate the experiences of women who require emergency caesarean birth. Clinical audit systems could be used to measure current practice against evidence-based standards. Such on-going, continuous endeavour by multi-disciplinary groups to enhance the care for women will also facilitate a greater understanding of their respective roles and identify ways that they can compliment each other.

Further evaluation of the use of triage in early labour should be undertaken before it is adopted as a universal model. Limiting the amount of time that women spend with the midwife who ultimately cares for them in labour may, in some cases, hinder the development of a trusting relationship that enhances the experience of birth.

8.4.4 Implications for future research

This research raises many further questions that could not be addressed by exploration of the current data. Further research is therefore necessary in the following areas:

8.4.4.1 Long term perceptions of birth

Further work is required to determine how women assimilate their experiences and what factors influence that process. Some women change their appraisal of their birth over time, and identifying what factors give rise to such changes could provide maternity carers with knowledge to help women with negative perceptions find ways of feeling better about their experience. Such research would need to take account of how subsequent birth experiences change how women appraise a previous birth and how perception of carer mediates this evaluation. Further examination of the ‘Halo effect’, its purpose and life span would also have important methodological applications.

8.4.4.2 Providing supportive care in labour

The Maternity Standard, National Service Framework for Children, Young People and Maternity Services (Department of Health 2004) identifies that when women are giving birth they want ‘to receive personalised care, be treated with kindness, support and respect’ (page 27). Such an aspiration would not appear to be unduly demanding or require a high level of technical expertise. Some women, however, are not privileged with these fundamental considerations and further research is required in order to address this issue. Research questions might include what influences the midwife’s ability to provide supportive care in labour and how can the supportive aspect of the midwife’s role best be taught to student midwives? It would also be valuable to explore if direct entry midwifery students support women differently from midwives who were already nurses and if so why?

There is also a need to address some effectiveness questions. Creating a programme of education for midwives to develop the skills of ‘intelligent guardianship’ is one example of how women’s need for sensitive supportive care might be addressed. Such a programme would need rigorous evaluation of its effectiveness in terms of its potential to impact on women and the midwives who had been through it. A randomised controlled trial comparing different models of education and or continuing professional development would provide valuable insights into this initiative.

Another issue that could be addressed through a randomised controlled trial is what is the most effective model for providing support to women in labour alongside midwifery care? One-to-one midwifery care is for labouring women is an expensive aspiration. Are there alternatives that could

effectively supplement professional care without compromising the woman's experience and the midwife's role?

8.4.4.3 What do midwives do during labour and how is their care perceived?

This research asked women to reflect on their care and describe the attributes of their carers. Hence the data comprised women's memories of events and their interpretation of them. Whilst this subsequent appraisal is an important avenue to explore, it was not possible from these data to know what activities midwives were undertaking that the women did not remember. Also, to what extent do individual women perceive the same care differently, perhaps because of their own hopes and expectations, personality, use of analgesia or stage of labour? It would be important to explore which aspects of care that the midwife provided that s/he herself thought was supportive and to confirm or refute this with the woman herself. These issues could only be explored by recording the interaction between women and their carers during labour. Parts of an audio-visual recording could then be re-played to the carers involved and subsequently to the woman asking them to reflect on what was helpful and what was not. This information could be used to enhance midwives continuing professional development and inform the education of student midwives.

8.4.4.4 The role of the birth partner during labour and birth

This study explored women's experiences of labour and childbirth. The extent to which the participation and support of a significant other person impacts on their evaluation of the birth was not considered. It would be valuable to explore the antenatal expectations of the birthing partner and the woman and the extent to which they were fulfilled, what influenced this process and the importance of such involvement in their subsequent appraisal of the event. Such data could inform the development of programmes of antenatal education and birth preparation and inform the development of strategies for midwives to facilitate the effective involvement of birthing partners.

8.4.4.5 The labour experiences of women from minority ethnic groups

The study conducted did not represent women from minority ethnic groups. This is a group of women that are often under-represented in research studies either because their communities are not included in the sample or because the research tools do not facilitate their involvement. It is important therefore that research is undertaken that is specifically designed to address their needs. Research is also needed to inform the care of women who do not speak and/or read English as increasing numbers of migrants join communities not previously orientated to meet their maternity

health care needs. There is necessity to look at the experiences of minority ethnic women particularly in relation to decision-making, support and cultural sensitivity during labour and birth.

8.4.4.6 The birth perceptions of women who have an instrumental birth

It would be particularly valuable to explore factors that contribute to a negative perception of instrumental birth because, in the right circumstances, a skillful and expedient assisted vaginal birth can be a safe and efficient means of delivering a distressed baby. Avenues should be explored to enhance this experience for women before it becomes an unacceptable mode of birth and doctors and practitioners lose yet another key obstetric skill.

Anecdotal evidence suggest that when midwives perform an instrumental delivery women evaluate the experience positively (Wills and Deighton 2002). This relatively new and uncommon extension of the midwife's role needs investigation, exploring such issues as; the use of analgesia, interpersonal communication skills and appraisal of the birth for women attended by either a doctor or a midwife, as well as maternal and fetal morbidity.

8.4.4.7 Postnatal care following emergency caesarean birth

The postnatal stay following caesarean birth is getting shorter, with some women being encouraged to leave hospital when their baby is 24 hours old (National Institute for Clinical Excellence 2004). It is therefore important that effective use is made of this time and also that care in the community is geared to enable women to make an optimum postnatal recovery. It would be valuable to explore different models of postnatal care in relation to psychosocial and clinical outcomes.

8.5 In Conclusion

This study has explored how women feel about their experience of birth three and four years after the event. Predictors of feeling 'unhappy with the way things went' when they looked back three years later, were identified using multivariable analysis. The most important predictors were: having an emergency caesarean or an instrumental birth; not feeling that the staff were supportive during labour and not having close contact with the baby in the first hour after the birth. A further model was developed for women who had an emergency caesarean birth and for them the predictors of feeling unhappy with the way things went were: not feeling supported by the staff during labour; not feeling they were always treated as an individual and with respect and feeling that her life was in danger during the birth.

The study then explored the sequelae of emergency caesarean for women. They were less likely to be offered help on the postnatal ward or discuss the birth with a health professional than women who had an elective caesarean. They were generally well supported with breastfeeding and were not less likely to initiate breastfeeding than other women. However multiparous women who had an emergency caesarean gave up feeding sooner than other multiparous women.

Having an emergency caesarean did not influence women's relationship with their baby or the way they described them either six weeks or three years after the birth. Women who had an emergency caesarean were less likely to feel satisfied or fulfilled following the birth than other women, however there was no association between postnatal depression or self-esteem and mode of birth. They were not less likely to go on to have a subsequent baby than other women, although they were influenced by their previous mode of birth when asked to contemplate how they might wish their next baby to be born.

For the women in this study, their perception of their carers and the care they received had the potential to make a difference to how they looked back on the birth. The women whose carers engaged with them and portrayed competence through their demeanour, had a positive perception of their birth despite its surgical nature. Feeling that they were 'in safe hands' mitigated against the unexpected outcome. This work has raised many issues that have implications for maternity service delivery, education, research and maternity care policy. Dissemination and implementation of these findings are the crucial next steps.

References

- Affonso DD and Stichler JF (1980) Cesarean birth: women's reactions. *American Journal of Nursing*. 80(3): 468-70.
- Alexander J (1998) Confusing debriefing and defusing postnatally: the need for clarity of terms, purpose and value. *Midwifery* 14: 122-124.
- Al-Mufti R, McCarthy A and Fisk NM (1996) Obstetricians' personal choice and mode of delivery. *Lancet*. 347(9000): 544.
- Anderson G, Moore E, Hepworth J and Bergman N (2003) Early skin-to-skin contact for mothers and their healthy newborn infants (Cochrane Review). In: *The Cochrane Library, Issue 2*. Chichester, UK: John Wiley & Sons, Ltd.
- Anisfeld E and Lipper E (1983) Early contact, social support, and mother-infant bonding. *Pediatrics* 72(1): 79-83.
- Axe S (2000) Labour debriefing is crucial for good psychological care. *British Journal of Midwifery* 8(10): 626-631.
- Bahl R, Strachan B and Murphy DJ (2004) Outcome of subsequent pregnancy three years after previous operative delivery in the second stage of labour: cohort study. *British Medical Journal*. Doi: 10.1136/bmj.7942.546076.44. Epub 14 Jan 2004.
- Bailey A and Jones J (1997) Patients' memories of events during general anesthesia. *Anaesthesia* 52: 460-476.
- Barbour R (2001) Checklists for improving rigour in qualitative research: a case of the tail wagging the dog? *British Medical Journal* 322: 1115-1117.
- Barley K, Aylin P, Bottle A and Jarman B (2004) Social class and elective caesareans in the English NHS. *British Medical Journal* 328(7453): 1399.

Baston H and Durward H (2001) *Examination of the newborn. A practical guide*. London, Routledge.

Bell J, Campbell D, Graham W, Penney G, Ryan M and Hall M (2001) Do obstetric complications explain high caesarean section rates among women over 30? A retrospective analysis. *British Medical Journal* 322: 894-895.

Bennett A (1985) The birth of a first child: Do women's reports change over time? *Birth* 12(3): 153-158.

Berg M and Dahlberg K (1998) A phenomenological study of women's experiences of complicated childbirth. *Midwifery* 14: 23-29.

Berry K (1983) The body image of a primigravida following cesarean delivery. *Issues in Health Care of Women*. 6: 367-376.

Bewley S and Cockburn J (2002) Responding to fear of childbirth. *The Lancet* 359(9324): 2128-2129.

Bhattacharya S, Porter M, Harrild K, Naji A, Mollison J, van Teijlingen E, Campbell D, Hall M and Templeton A (2006) Absence of conception after caesarean section: voluntary or involuntary? *BJOG: An International Journal of Obstetrics and Gynaecology* 113(3): 268-275.

Bowers D, House A and Owens D (2006) *Understanding clinical papers 2nd Edition*. Chichester, John Wiley and Sons.

Bowers B (2002) Mothers' experiences of labor support: exploration of qualitative research. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 31(6): 742-752.

Boyce P and Todd A (1992) Increased risk of postnatal depression after emergency caesarean section. *Medical Journal of Australia* 157(3): 172-174.

Bradley C, Brewin CR and Duncan SL (1983) Perceptions of labour: discrepancies between midwives' and patients' ratings. *British Journal of Obstetrics and Gynaecology*. 90(12): 1176-1179

-
- Bradley C, Ross S and Warnyca J (1983) A prospective study of mothers' attitudes and feelings following cesarean and vaginal births. *Birth* 10(2): 79-83.
- Bramadat I and Driedger M (1993) Satisfaction with childbirth: theories and methods of measurement. *Birth* 20(1): 22-29.
- Brannen J (2004) Working qualitatively and quantitatively. *Qualitative research practice*. C. Seale, G. Gobo, J. Gubrium and D. Silverman. London, Sage: 312-326.
- Brown S and Lumley J (1994) Satisfaction with care in labour and birth: a survey of 790 Australian women. *Birth* 21(1): 4-13.
- Brown S and Lumley J (1998) Maternal health after childbirth: results of an Australian population based survey. *British Journal of Obstetrics and Gynaecology* 105: 156-161.
- Brugha T and Cragg D (1990) The list of Threatening Experiences: the reliability and validity of a brief life events questionnaire. *Acta Psychiatrica Scandinavica* 82: 77-81.
- Bryanton J, Fraser-Davey H and Sullivan P (1994) Women's perceptions of nursing support during labour. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 23(8): 638-644.
- Bryman A (1988) *Quantity and quality in social research*. London, Unwin Hyman.
- Bryman A (2001) *Social research methods*. Oxford, Oxford University Press.
- Buljevac D, Hop W, Reedeker W, Janssens A, van der Meche F and van Doorn P (2003) Self reported stressful life events and exacerbations in multiple sclerosis: prospective study. *British Medical Journal* 327: 646-651.
- Burgess R (1984) *In the field: an introduction to field research*. London, Allen and Unwin.
- Buxton K, Gielen A, Faden R, Brown C, Paige D and Chwalow A (1991) Women intending to breastfeed: predictors of early infant feeding experiences. *American Journal of Preventative Medicine* 7(2): 101-106.
- Campbell A (1984) *Moderated love. A theory of professional care*. London, SPCK.

-
- Carlton T, Callister L and Stoneman E (2005) Decision making in labouring women. Ethical issues for perinatal nurses. *Journal of Perinatal & Neonatal Nursing*. 19(2): 145-154.
- Cartwright A (1987a) Who are maternity services kind to? What is kindness? *Midwife, Health Visitor and Community Nurse* 23(1): 21-24.
- Cartwright A (1987b) Monitoring maternity services by postal questionnaires to mothers. *Health Trends* 19: 19-20.
- Cartwright W (1988) Interviews or postal questionnaires? Comparisons of data about women's experiences of maternity services. *The Milbank Quarterly* 66(1): 172-188.
- Ceronio C, Dorfling C and Nolte A (1995) The experiences of parents where pregnancy ended in an unplanned caesarean section. *Curationis* 18(4): 48-51.
- Chalmers B (2002) How often must we ask for sensitive care before we get it? Guest editorial. *Birth* 29(2): 79-82.
- Charles J and Curtis L (1994) Birth afterthoughts: a postnatal listening service for women. *British Journal of Midwifery* 2(7): 331-334.
- Chauhan SP, Martin JN(Jr), Henrichs CE, Morrison JC and Magann EF (2003) Maternal and perinatal complications with uterine rupture in 142,075 patients who attempted vaginal birth after cesarean delivery: A review of the literature. *American Journal of Obstetrics and Gynecology*. 189(2): 408-17.
- Chen C, Wang S and Chang M (2001) Women's perceptions of helpful and unhelpful nursing behaviours during labour: A study in Taiwan. *Birth* 28(3): 180-185.
- Chen C and Wang S (2002) Psychosocial outcomes of vaginal and cesarean births in Taiwanese primiparas. *Research in Nursing and Health* 25(6): 452-458.
- Churchill H (1997) *Caesarean Birth: Experience, Practice and History*. Hale, Cheshire, Books for Midwives.
- Clement S (1995) *The caesarean experience*. London, Pandora, Harper Collins.

-
- Coad J and Dunstall M (2001) *Anatomy and Physiology for midwives*. Edinburgh, Mosby.
- Cobb S (1976) Social support as a moderator of life stress. *Psychosomatic Medicine* 38: 300-311.
- Cox B and Smith E (1982) Research and practice. The mother's self-esteem after a cesarean section. *American Journal of Maternal and Child Health Nursing* 7(5): 309-314.
- Cox J, Holden J and Sagovsky R (1987) Detection of postnatal depression: development of the 10 item Edinburgh postnatal depression scale. *British Journal of Psychiatry* 150: 782-786.
- Cox J, Chapman G, Murray D and Jones P (1996) Validation of the Edinburgh postnatal depression scale (EPDS) in non-postnatal women. *Journal of Affective Disorders* 39: 185-189.
- Cranley M, Hedahl K and Pegg S (1983) Women's perceptions of vaginal and cesarean deliveries. *Nursing Research* 32(1): 10-15.
- Creedy D, Shochet I and Horsfall J (2000) Childbirth and the development of acute trauma symptoms: Incidence and contributing factors. *Birth* 27(2): 104-111.
- Crocker J and Knight KM (2005) Contingencies of Self-Worth. *Current Directions in Psychological Science* 14(4): 200-203.
- Crotty M (1998) *The foundations of social research. Meaning and perspective in the research process*. London, Sage Publications.
- Crow R, Gage H, Hampson S, Hart J, Kimber A, Storey L and Thomas H (2002) The measurement of satisfaction with healthcare: implications for practice from a systematic review of the literature, Health Technology Assessment. NHS R&D HTA Programme. 6(32).
- Culp R and Osofsky H (1989) Effects of cesarean delivery on parental depression, marital adjustment, and mother infant interaction. *Birth* 16(2): 53-58.
- Czarnocka J and Slade P (2000) Prevalence and predictors of post-traumatic stress symptoms following childbirth. *British Journal of Clinical Psychology* 39: 35-51.

-
- Dannenbring D, Stevens MJ and House AE (1997) Predictors of childbirth pain and maternal satisfaction. *Journal of Behavioral Medicine* 20(2): 127-142.
- DiMatteo M, Morton S, Lepper H, Damush TM, Carney MF, Pearson M and Kahn K (1996) Cesarean childbirth and psychosocial outcomes: A meta-analysis. *Health Psychology* 15(4): 303-314.
- Department of Health (2003) How to breastfeed. *leaflet*.
- Department of Health (2004) National Service Framework for Children, Young People and Maternity Services. Standard 11. Maternity Services. London
- Devendra K and Arulkumaran S (2003) Should doctors perform an elective caesarean section on request? *Annals of the Academy of Medicine, Singapore*. 32(5): 577-581.
- Dickinson JE, Paech MJ, McDonald SJ and Evans SF (2003) Maternal satisfaction with childbirth and intrapartum analgesia in nulliparous labour. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 43(6): 463-8.
- DiGirolamo A, Grummer-Strawn L and Fein S (2001) Maternity care practices: Implications for breastfeeding. *Birth* 28(2): 94-100.
- Drew N, Salmon P and Webb L (1989) Mothers', midwives' and obstetricians' views on the features of obstetric care which influence satisfaction with childbirth. *British Journal of Obstetrics and Gynaecology* 96: 1084-1088.
- Drife J (2002) The start of life: a history of obstetrics. *Postgraduate Medical Journal* 78: 311-315.
- Durik A, Hyde J and Clark R (2000) Sequelae of cesarean and vaginal deliveries: Psychosocial outcomes for mothers and infant. *Developmental Psychology* 36: 251-260.
- Dyregrov A (1989) Caring for helpers in disaster situations: psychological debriefing. *Disaster Management* 2(1): 25-30.
- Ecker JL (2004) Once a pregnancy always a cesarean? Rational and feasibility of a randomized controlled trial. *American Journal of Obstetrics & Gynecology* 190(2): 314-318.

-
- Edwards D, Porter S and Stein G (1994) A pilot study of postnatal depression following caesarean section using two retrospective self-rating instruments. *Journal of Psychosomatic Research* 38(2): 111-117.
- Elliott S, Anderson M, Brough D, Watson J and Rugg A (1984) Relationship between obstetric outcome and psychological measures in pregnancy and the postnatal year. *Journal of Reproductive and Infant Psychology* 2: 18-32.
- Enkin M and Wilkinson C (2000) Single versus two layer suturing for closing the uterine incision at caesarean section. *Cochrane Database of Systematic Reviews*(2): CD000192.
- Erb L, Hill G and Houston D (1983) A survey of parents' attitudes towards their cesarean births in Manitoba hospitals. *Birth* 10: 85-91.
- Fahy K (1998) Being a midwife or doing midwifery? *Australian College of Midwives Incorporated Journal* 11(2): 11-16.
- Fawcett J (1990) Preparation for caesarean childbirth: a derivation of a nursing intervention from the Roy Adaptation Model. *Journal of Advanced Nursing* 15(12): 1418-1425.
- Fawcett J, Pollio N and Tully A (1992) Women's perceptions of cesarean and vaginal delivery: Another look. *Research in Nursing and Health* 15: 439-446.
- Fawcett J, Pollio N, Tully A, Baron M, Henklein J and Jones R (1993) Effects of information on adaptation to cesarean birth. *Nursing Research* 42(1): 49-53.
- Fergusson D, Horwood J, Thorpe K and ALSPAC team (1996) Changes in depression during and following pregnancy. *Pediatric Perinatal Epidemiology* 10: 279-293.
- Field T and Widmayer S (1980) Developmental follow-up of infants delivered by caesarean section and general anaesthesia. *Infant Behaviour and Development* 3: 253-264.
- Field P (1987) Maternity nurses: how parents see us. *International Journal of Nursing Studies* 24(3): 191-197.

-
- Field C (1988) Surgical techniques for caesarean section. *Obstetrics and Gynecology Clinics of North America* 15: 657-672.
- Field A (2000) *Discovering statistics using SPSS for windows*. London, Sage.
- Finger C (2003) Caesarean section rates skyrocket in Brazil. *The Lancet* 362: 628.
- Fisher J, Astbury J and Smith A (1997) Adverse psychological impact of operative obstetric interventions: a prospective longitudinal study. *Australian and New Zealand Journal of Psychiatry* 31: 728-738.
- Flamm B (2000) Cesarean section: A worldwide epidemic? *Birth* 27(2): 139-140.
- Fleissig A (1993) Are women given enough information by staff during labour and delivery? *Midwifery* 9: 70-75.
- Flint C (1986) *Sensitive Midwifery*. London, Heinemann Midwifery.
- Fontana A and Frey J (2003) The interview: from structured questions to negotiated texts. *Collecting and interpreting qualitative materials*. N. Denzin and Y. Lincoln. Thousand Oaks, California, Sage Publications, Inc.
- Francome C, Savage W, Churchill H and Lewison H (1993) *Caesarean birth in Britain*. Cambridge, Middlesex University.
- Froggatt K (2001) Using computers in the analysis of qualitative data. *Palliative Medicine* 15: 517-520.
- Gage N (1989) The paradigm wars and their aftermath: a historical sketch of research and teaching since 1989. *Educational Researcher* 18(7): 4-10.
- Gagnon A and Waghorn K (1996) Supportive care by maternity nurses: A work sampling study in an intrapartum unit. *Birth* 23: 1-6.
- Galbert H and Bey M (1988) History and development of cesarean operation. *Obstetrics and Gynecological Clinics of North America* 15: 591-605.

Gale J, Fothergill-Bourbonnais F and Chamberlain M (2001) Measuring nurse support during childbirth. *American Journal of Maternal Child Nursing* 26(5): 264-271.

Garcia J (1997) Finding out what women and their families think of maternity services. *The organisation of maternity care. A guide to evaluation*. R. Campbell and J. Garcia. Hale, Hochland and Hochland : 48-64.

Garcia J, Redshaw M, Fitzsimons B, Keene J. (1998) *First class delivery. A national survey of women's views of maternity care*. London: Audit Commission.

Garel M, Lelong N and Kaminski M (1987) Psychological consequences of caesarean childbirth in primiparas. *Journal of Psychosomatic Obstetrics and Gynaecology* 6: 197-209.

Garel M, Lelong N and Kaminski M (1988) Follow-up study of psychological consequences of cesarean childbirth. *Early Human Development* 16(2-3): 271-282.

Garel M, Lelong N, Marchand A and Kaminski M (1990) Psychosocial consequences of caesarean childbirth: a four-year follow-up study. *Early Human Development* 21(2): 105-114.

Gazmararian J, Petersen R, Spitz A, Goodwin M, Saltzman L and Marks J (2000) Violence and reproductive health: current knowledge and future research directions. *Maternal and Child Health Journal* 4: 79-84.

Gibbs GR (2002) *Qualitative data analysis. Explorations with NVivo*. Buckingham, Open University Press.

Gillian M, Rosenberg D and Davis F (2002) The likelihood of placenta previa with a greater number of cesarean deliveries and higher parity. *Obstetrics & Gynecology* 99(6): 976-980.

Glaser B and Strauss A (1967) *Discovery of Grounded theory*. Chicago, Aldine.

Goodman P, Mackey MC and Tavakoli AS (2004) Factors related to childbirth satisfaction. *Journal of Advanced Nursing*. 46(2): 212-9.

Gottlieb S and Barrett D (1986) Effects of unanticipated cesarean section on mothers, infants and their interaction in the first month of life. *Journal of Developmental and Behavioural Pediatrics* 7: 180-187.

Gottvall K and Waldenstrom U (2002) Does a traumatic birth experience have an impact on future reproduction? *British Journal of Obstetrics and Gynaecology* 109(3): 254-260.

Government Statistical Service (2002) *NHS Maternity statistics*, England:2002-2003. London.

Government Statistical Service (2004) *NHS Maternity statistics*, England:2002-2003. London.

Government Statistical Service (2005) *NHS Maternity statistics*, England:2003-2004. London.

Green J and Baston H (2003) Feeling in control during labour: concepts, correlates and consequences. *Birth* 30(4): 235-247.

Green J (2005a). What is the EPDS measuring and how should we use it in research? In: Henshaw C and Elliott S. *Screening for perinatal depression* London, Jessica Kingsley Publishers: 141-147.

Green B (2005b) Midwives' coping methods for managing birth uncertainties. *British Journal of Midwifery* 13(5): 293-298.

Green J (1993) Expectations and experiences of pain in labour: Findings from a large prospective study. *Birth* 20(2): 65-72.

Green J, Coupland V and Kitzinger J (1998) *Great Expectations. A Prospective Study of Women's Expectations and Experiences of Childbirth*. Hale, Books for Midwives Press.

Green J, Baston H, Easton S and McCormick F (2003) Inter-relationships between women's expectations and experiences of decision making, continuity, choice and control in labour, and psychological outcomes: Implications for maternity service policy. "Greater Expectations". *Summary Report*, Mother and Infant Research Unit, University of Leeds.

Green J, Richards M, Kitzinger J and Coupland V (1991) Mothers' perceptions of their 6-Week old Babies: relationships with antenatal, intrapartum and postnatal Factors. *The Irish Journal of Psychology* 12(2): 133-144.

Greene PG, Zeichner A, Roberts NL, Callahan EJ and Grandos J (1989) Preparation for cesarean delivery: A multicomponent analysis of treatment outcome. *Journal of Consulting & Clinical Psychology* 57(4): 484-487.

Greenhalgh R, Slade P and Spiby H (2000) Fathers' coping style, antenatal preparation, and experiences of labor and the postpartum. *Birth*. 27(3): 177-84.

Hall MH, Campbell DM, Fraser C and Lemon J (1989) Mode of delivery and future fertility. *British Journal of Obstetrics and Gynaecology*. 96(11): 1297-303.

Hallgren A, Kihlgren M and Olsson P (2005) Ways of relating during childbirth: an ethical responsibility and challenge for midwives. *Nursing Ethics* 12(6): 606-621.

Hamilton A (2003) Operative deliveries In : Fraser DM and Cooper MA (Eds) *Myles text book for midwives. Fourteenth Edition*. Edinburgh, Churchill Livingstone.

Hannah P, Adams D, Lee A, Glover V and Sandler M (1992) Links between early post-partum mood and postnatal depression. *British Journal of Psychiatry* 160: 777-780.

Hem E and Bordahl P (2003) Max Sanger - father of the modern cesarean section. *Gynecologic and Obstetric Investigation*. 55(3): 127-129.

Hemminki E, Graubard BI, Hoffman HJ, Mosher WD and Fetterly K (1985) Cesarean section and subsequent fertility: results from the 1982 National Survey of Family Growth. *Fertility and Sterility*. 43(4): 520-8.

Hemminki E and Merilainen J (1996) Long-term effects of cesarean sections: ectopic pregnancies and placental problems. *American Journal of Obstetrics & Gynecology* 174(5): 1569-1574.

Hillan E (1992a) Maternal-infant attachment following caesarean delivery. *Journal of Clinical Nursing* 1: 33-37.

Hillan E (1992b) Research and Audit: women's views of caesarean section. *Women's Health Matters*. H. Roberts. London, Routledge: 157-175.

Hillan E (1992c) Short-term morbidity associated with caesarean delivery. *Birth* 19(4): 190-194.

-
- Hillan EM (1992d) Issues in the delivery of midwifery care. *Journal of Advanced Nursing*. 17(3): 274-8.
- Hodnett E and Osborn R (1989) A randomized trial of the effects of monitrice support during labor: Mothers' views two to four weeks postpartum. *Birth* 16(4): 177-184.
- Hodnett E (2002) Pain and women's satisfaction with the experience of childbirth: a systematic review. *American Journal of Obstetrics and Gynecology (supplement)* 186(5): S160-S172.
- Hodnett E, Gates S, Hofmeyr G and Sakala C (2003) Continuous support for women during childbirth (Cochrane Review). *The Cochrane Library* (Issue 3): Chichester, UK: John Wiley & Sons, Ltd.
- Hofberg K and Brockington IF (2000) Tokophobia: an unreasoning dread of childbirth. *British Journal of Psychiatry* 176: 83-85.
- Holmes T and Rahe R (1967) The social readjustment rating scale. *Journal of Psychosomatic Research* 11: 213-218.
- Holroyd E, Yin-king L, Pui-yuk LW, Kwok-hong FY and Shuk-Lin BL (1997) Hong-Kong Chinese women's perceptions of support from midwives during labour. *Midwifery* 13: 66-72.
- House of Commons Health Committee (2003) Choice in Maternity Services. Ninth Report of Session 2002-03. London
- Hughes J (2004) Dictator Perpetuus: Julius Caesar - did he have seizures? If so, what was the etiology? *Epilepsy and Behaviour* 5(5): 756-764.
- Hundley V, Gurney E, Graham W and Rennie A (1998) Can anxiety in pregnant women be measured using the State-Trait Anxiety Inventory? *Midwifery* 14: 118-121.
- Hundley VA, Milne JM, Glazener CM and Mollison J (1997) Satisfaction and the three C's: continuity, choice and control. Women's views from a randomised controlled trial of midwife-led care. *British Journal of Obstetrics and Gynaecology*. 104(11): 1273-80.

-
- Hunter B (2001) Emotion work in midwifery: a review of current knowledge. *Journal of Advanced Nursing* 34(4): 436-444.
- Hunter LP (2002) Being With Woman: A Guiding Concept for the Care of Laboring Women. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 31(6): 650-657.
- International Confederation of Midwives (2005) Definition of a Midwife. <http://www.medicalknowledgeinstitute.com/files/ICM%20Definition%20of%20the%20Midwife%202005.pdf>
- Irion O, Luzuy F and Beguin F (1996) Nonclosure of the visceral and parietal peritoneum at caesarean section: a randomised controlled trial. *British Journal of Obstetrics and Gynaecology* 103(7): 690-694.
- Jackson K (1996) Postnatal care in hospital. *British Journal of Midwifery* 4(1): 40-41.
- Jackson N and Paterson-Brown S (2001) Physical sequelae of caesarean section. *Best Practice & Research in Clinical Obstetrics & Gynaecology*. 15(1): 49-61.
- Jagger A (1989) Love and knowledge: emotion in feminist epistemology. In: Garry A and Pearsall M (Eds) *Women, knowledge, and reality: explorations in feminist philosophy (First Edition)*. Boston, Unwin Hyman.
- Janke J (1988) Breastfeeding duration following cesarean and vaginal births. *Journal of Nurse Midwifery* 33: 159-164.
- Johnson J and McCutcheon S (1980). Assessing life stress in older children and adolescents: preliminary findings with the Life Events Checklist. *Stress and Anxiety* Sarason I and Spielberger C. Washington, DC, Hemisphere.
- Johnson R and Slade P (2002) Does fear of childbirth during pregnancy predict emergency caesarean section? *British Journal of Obstetrics and Gynaecology* 109(11): 1213-1221.
- Kamath T and Kumar S (2003) Women with schizophrenia and broken marriages - doubly disadvantaged? Part 1: patient perspective. *International Journal of Social Psychiatry* 49(3): 225-232.

-
- Kearney M, Cronenwett L and Reinhardt R (1990) Cesarean delivery and breastfeeding outcomes. *Birth* 17(2): 97-103.
- Kendler K, Karkowski L and Prescott C (1999) Causal Relationship Between Stressful Life Events and the Onset of Major Depression. *American Journal of Psychiatry* 156(6).
- Kennedy HP (1995) The essence of nurse-midwifery care: the woman's story. *Journal of Nurse-Midwifery* 40(5): 410-417.
- Kerr J (1926) The technique of caesarean section with special reference to the lower uterine segment. *American Journal of Obstetrics and Gynecology* 12: 729-734.
- Kinsella SM, Lucas DN, Yentis SM, Holdcroft A, May AE, Wee M and Robinson PN (2001) Delivery by caesarean section. Caesarean section urgency - use clinical definitions [comment]. *British Medical Journal* 323(7318): 931; author reply 933-4.
- Kintz D (1987) Nursing support in labour. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 16(2): 126-130.
- Kirkham M (1989). Midwives and information-giving during labour. *Midwives Research and Childbirth* Robinson S and Thomson A. Bristol, Chapman & Hall. 1: Chapter 6, 117-137.
- Klaus M, Kennell J, Robertson S and Sosa R (1986) Effects of social support during parturition on maternal and fetal morbidity. *British Medical Journal* 293(6547): 585-587.
- Klaus M and Kennell J (2001) Commentary: Routines in maternity wards: are they still appropriate for 2002 *Birth* 28(4): 274-275.
- Kochanevich-Wallace P, McCluskey-Fawcett K, Meck N and Simons C (1988) Method of delivery and parent newborn interaction. *Journal of Pediatric Psychology* 13(2): 213-221.
- Lavender T, Walkinshaw S and Walton I (1999) A prospective study of women's views of factors contributing to a positive birth experience. *Midwifery* 15: 40-46.

-
- Lavender T, Kingdon C, Hart A, Gyte G, Gabbay M and Neilson JP (2005) Could a randomised trial answer the controversy relating to elective caesarean section? National survey of consultant obstetricians and heads of midwifery. *British Medical Journal* 331(7515): 490-491.
- Leamon J (2001) Stories about childbirth: learning from discourses. *Unpublished thesis*. University of East Anglia.
- Levy A and Sheiner E (2003) The relationship between cesarean delivery and subsequent delivery. *American Journal of Obstetrics and Gynecology* 189(6): S143.
- Linder-Pelz S (1982) Towards a theory of patient satisfaction. *Social Science & Medicine* 16: 577-582.
- Lipson JG (1982) Effects of a support group on the emotional impact of cesarean childbirth. *Prevention in Human Services*. 1(3): 17-29.
- Lomas J, Dore S, Enkin M and Mitchell A (1987) The labour and delivery satisfaction index: the development of a soft outcome measure. *Birth* 14(3): 125-129.
- Lucas D, Yentis S, Kinsella S, Holdcroft A, May A, Wee M and Robinson P (2000) Urgency of caesarean section: a new classification. *Journal of the Royal Society of Medicine* 93(7): 346-350.
- Lundgren I and Dahlberg K (2002) Midwives' experience of the encounter with women and their pain during childbirth. *Midwifery* 18: 155-164.
- Lundgren I, Berg M and Lindmark G (2003) Is the childbirth experience improved by a birth plan? *Journal of Midwifery & Women's Health* 48(5): 322-8.
- Lundgren I (2004) Releasing and relieving encounters: experiences of pregnancy and childbirth. *Scandinavian Journal of Caring Science* 18: 368-375.
- Lurie S and Glezerman M (2003) The history of cesarean technique. *American Journal of Obstetrics and Gynecology* 189(6): 1803-1806.

-
- MacKenzie IZ and Cooke I (2002) What is a reasonable time from decision-to-delivery by caesarean section? Evidence from 415 deliveries. *British Journal of Obstetrics and Gynaecology* 109(5): 498-504.
- Mackey M and Lock S (1989) Women's expectations of the labour and delivery nurse. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 18(6): 505-512.
- Mackey MC and Stepan M (1994) Women's evaluations of their labour and delivery nurses. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 23(5): 413-420.
- MacKinnon K, McIntyre M and Quance M (2005) The meaning of the nurse's presence during childbirth. *Journal of Obstetric, Gynecologic and Neonatal Nursing*. 34(1): 28-36.
- Maclea LI, McDermott MR and May CP (2000) Method of delivery and subjective distress: women's emotional responses to childbirth practices. *Journal of Reproductive and Infant Psychology* 18(2): 153-162.
- Manogin T, Bechtel G and Rami J (2000) Caring behaviours by nurses: women's perceptions during childbirth. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 29(2): 153-157.
- Mansbach IK, Greenbaum CW and Sulkes J (1991) Onset and duration of breast feeding among Israeli mothers: Relationships with smoking and type of delivery. *Social Science & Medicine* 33(12): 1391-1397.
- Marut J and Mercer R (1979) Comparison of primiparas' perceptions of vaginal and cesarean births. *Nursing Research* 28(5): 260-266.
- Marut J and Mercer R (1981) The cesarean birth experience: Implications for nursing. *Birth Defects: Original Article Series* 17(6): 129-152.
- Mason J (2002) *Qualitative researching*. London, Sage publications.
- Maternity Centre Association (2004) Recommendations from Listening to Mothers: The first national U.S survey of women's childbearing experiences. *Birth* 31(1): 61 - 65.

Matthews R and Callister L (2004) Childbearing women's perceptions of nursing care that promotes dignity. *Journal of Gynecological and Neonatal Nursing* 33(4): 498-507.

McClellan M and Cabianca W (1980) Effects of early mother-infant contact following caesarean birth. *Obsterics and Gynecology* 56(1): 52-55.

McCrea B, Wright M and Murphy-Black T (1998) Differences in midwives' approaches to pain relief in labour. *midwifery* 14: 174-180.

McNiven P, Hodnett E and O'Brien-Pallas L (1992) Supporting women in labour: a work sampling study of the activities of labour and delivery nurses. *Birth* 19(1): 3-8.

Miller D (1985) Minimizing sensory alterations of the unplanned cesarean delivery. *Topics in Clinical Nursing* 6(4): 1-8.

Miller J, Thornton E and Gittens C (2002) Influences of mode of delivery and personality. *British Journal of Midwifery* 10(11): 692-697.

Miovech S, Knapp H, Borucki L, Roncoli M, Arnold L and Brooten D (1994) Major concerns of women after cesarean delivery. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 23(1): 53-59.

Moore M and Hopper U (1995) Do birth plans empower women? Evaluation of a hospital birth plan. *Birth* 22(1): 29-36.

Moorhead J (2005) Every bit as magical. *The guardian*. Manchester. December 3

Moss P, Bolland G, Foxman R and Owen C (1987) The hospital inpatient stay: The experience of first-time parents. *Child: Care, Health & Development* 13(3): 153-167.

National Health Service Litigation Authority (2005) Clinical negligence scheme for trusts. Maternity clinical risk management standards, Willis.

National Institute for Clinical Excellence (2004) Caesarean section. Clinical guideline 13, London, National Collaborating Centre for Women's and Children's Health.

Neu M (2004) Kangaroo care: is it for everyone? *Neonatal Network* 23(5): 47-54.

-
- Newell F (1921) *Cesarean section*. New York, London. D. Appleton and Company.
- Nursing and Midwifery Council (2004a) *Midwives rules and standards*. London NMC.
- Nursing and Midwifery Council (2004b) *The NMC code of professional conduct: standards for conduct, performance and ethics*. London, NMC.
- Oakley A (1981). Interviewing women: a contradiction in terms? *Doing feminist research* Roberts H. London, Routledge.
- Oakley A (1992) Commentary: the best research is that which breeds more. *Birth* 19(1): 8-9.
- Oakley A (2000) *Experiments in knowing. Gender and method in the social sciences*. Oxford, Polity Press.
- Ockleford EM, Berryman JC and Hsu R (2004) Postnatal care: what new mothers say. *British Journal of Midwifery* 12(3): 166-171.
- Odent M (2003) Fear of death during labour. *Midwifery Today* Autumn 2003: 20-22.
- Odent M (2004) *The Caesarean*. London, Free Association Books.
- Ogden J, Shaw A and Zander L (1998) Women's experience of having a hospital birth. *British Journal of Midwifery* 6(5): 339-45.
- Padawer J, Fagan C, Janoff-Bulman R, Strickland B and Chorowski M (1988) Women's psychological adjustments following emergency caesarean vs. vaginal delivery. *Psychology of Women Quarterly* 12(1): 25-34.
- Paterson CM and Saunders NJ (1991) Mode of delivery after one caesarean section: audit of current practice in a health region. *British Medical Journal*. 303(6806): 818-21.
- Peltier J, Schibrowski J and Westfall J (2000) Exploring the role nurses play at different stages of the birthing process. *Marketing Health Services* Fall: 21-28.

Persad P, Hiscock C and Mitchell T (1997) Midwives' own perception of competence in obstetric procedures. *British Journal of Midwifery* 5(11): 706-708.

Pollock L (2004) Why are increasing numbers of women turning to caesarean sections? *Midwives*(7): 1.

Porter M, Bhattacharya S and Teijlingen Ev (2006) Unfulfilled expectations: How circumstances impinge on women's reproductive choices. *Social Science & Medicine* 62: 1757-1767.

Procianoy R, Fernandes-Filho P, Lazaro L and Sartori N (1984) Factors affecting breastfeeding: The influence of cesarean section. *Journal of Tropical Pediatrics* 30: 39-42.

Propst M, Schenk L and Clairain S (1994) Caring as perceived during the birth experience. *NLN Publications*: 252-264.

Rajan L (1994) The impact of obstetric procedures and analgesia/anaesthesia during labour and delivery on breastfeeding. *Midwifery* 10(2): 87-103.

Rapley G (2002) Keeping mothers and babies together - breastfeeding and bonding. *RCM Midwives Journal* 5(10): 332-334.

Renfrew M, Dyson L, Wallace L, D'Souza L, McCormick F and Spiby H (2005) The effectiveness of public health interventions to promote the duration of breastfeeding: systematic review. London, National Institute for Health and Clinical Excellence.

Rich O (1981). Critique. In: Marut J and Mercer R (1981) The cesarean birth experience: Implications for nursing. *Birth Defects: Original Article Series* 17(6): 140-152.

Righard L and Alade M (1990) Effect of delivery room routines on success of first breastfeed. *Lancet* 336(8723): 1105-1107.

Rijsdijk F, Sham P, Sterne A, Purcell S, McGuffin P, Farmer A, Goldberg D, Mann A, Cherny SS, Webster M, Ball D, Elcey T and Plomin R (2001) Life events and depression in a community sample of siblings. *Psychological Medicine* 31: 401-410.

-
- Robins R, Hendin H and Trzesniewski K (2001) Measuring global self-esteem: construct validation of a single-item measure and the Rosenberg Self-Esteem Scale. *Personality and Social Psychology Bulletin* 27(2): 151-161.
- Robinson J (2003) Improving the caesarean experience. *British Journal of Midwifery* 11(1): 48.
- Robinson J (2004) Memories are made of this: the midwife effect. *British Journal of Midwifery* 12(8): 515.
- Rodriguez A, Porter K and O'Brien W (1994) Blunt versus sharp expansion of the uterine incision in low-segment transverse cesarean section. *American Journal of Obstetrics & Gynecology* 171(4): 1022-1025.
- Rotter J (1966) Generalized expectancies for internal versus external control of reinforcement. *Psychological Monograph* 80(1): 1-28.
- Routh A (1911) On caesarean section in the United Kingdom. *Journal of Obstetrics and Gynaecology of the British Empire* 19(1): 1-55.
- Rowe-Murray HJ and Fisher JRW (2001) Operative intervention in delivery is associated with compromised early mother-infant interaction. *British Journal of Obstetrics and Gynaecology* 108(10): 1068-1075.
- Rowe-Murray HJ and Fisher JRW (2002) Baby friendly hospital practices: cesarean section is a persistent barrier to early initiation of breastfeeding. *Birth* 29(2): 124-131.
- Royal College of Obstetricians and Gynaecologists (2001) The national sentinel caesarean sections audit report. London, Clinical Effectiveness Support Unit.
- Ryding EL, Wijma B and Wijma K (1997) Posttraumatic stress reactions after emergency cesarean section. *Acta Obstetrica et Gynecologica Scandinavica* 76(9): 856-61.
- Ryding EL, Wijma K and Wijma B (1998a) Psychological impact of emergency cesarean section in comparison with elective cesarean section, instrumental and normal vaginal delivery. *Journal of Psychosomatic Obstetrics and Gynaecology* 19(3): 135-144.

-
- Ryding EL, Wijma K and Wijma B (1998b) Predisposing psychological factors for posttraumatic stress reaction after emergency cesarean section. *Acta Obstetrica et Gynecologica Scandinavica* 77(3): 351-352.
- Ryding EL, Wijma K and Wijma B (1998c) Experiences of emergency cesarean section: A phenomenological study of 53 women. *Birth* 25(4): 246-251.
- Ryding EL, Wijma B, Wijma K and Rydhstrom H (1998) Fear of childbirth during pregnancy may increase the risk of emergency caesarean section. *Acta Obstetrica et Gynecologica Scandinavica* 77(5): 542-547.
- Ryding E, Wijma K and Wijma B (2000) Emergency cesarean section: 25 women's experiences. *Journal of Reproductive and Infant Psychology* 18(1): 33-39.
- Ryding EL, Wiren E, Johansson G, Ceder B and Dahlstrom A (2004) Group counselling for mothers after emergency cesarean section: a randomised controlled trial of intervention. *Birth* 31(4): 247-253.
- Saisto T, Ylikorkala O and Halmesmaki E (1999) Factors associated with fear of delivery in second pregnancies. *Obstetrics & Gynecology* 94(5): 679-682.
- Saisto T, Salmela-Aro K, Nurmi J and Halmesmaki E (2001) Psychosocial factors, delivery experience and puerperal depression: A longitudinal study. *Acta Obstetrica et Gynecologica Scandinavica* 80: 39-45.
- Saisto T, Salmela-Aro K, Nurmi J and Halmesmaki E (2001) Psychosocial predictors of disappointment with delivery and puerperal depression: A longitudinal study. *Acta Obstetrica et Gynecologica Scandinavica* 80: 39-45.
- Salmon P and Drew N (1992) Multidimensional assessment of women's experience of childbirth: relationship to obstetric procedure, antenatal preparation and obstetric history. *Journal of Psychosomatic Research* 36(4): 317-327.
- Samuels S, Margen S and Schoen E (1985) Incidence and duration of breastfeeding in a health maintenance organisation population. *The American Journal of Clinical Nutrition* 42: 504-510.

Sandall J (1998) Occupational burnout in midwives: new ways of working and the relationship between organisational factors and psychological health and well being *Risk, Decision and Policy* 3(3):213-232.

Sargent C and Stark N (1987) Surgical birth: Interpretations of cesarean delivery among private hospital patients and nursing staff. *Social Science and Medicine* 25: 1269-1276.

Schindl M, Birner P, Reingrabner M, Joura E, Husslein P and Langer M (2003) Elective cesarean section vs. spontaneous delivery: a comparative study of birth experience. *Acta Obstetrica et Gynecologica Scandinavica*. 82(9): 834-40.

Scott JA, Binns CW, Graham KI and Oddy WH (2006) Temporal Changes in the Determinants of Breastfeeding Initiation. *Birth* 33(1): 37-45.

Scrimshaw S, Engle P, Arnold L and Haynes K (1987) Factors affecting breastfeeding among women of Mexican origin or descent in Los Angeles. *American Journal of Public Health*. 77(4): 467-470.

Shearer E (1989) Commentary: Does cesarean delivery affect the parents? *Birth* 16: 57-58.

Shields D (1978) Nursing care in labour and patient satisfaction: a descriptive study. *Journal of Advanced Nursing* 3: 535-550.

Simkin P (1991) Just another day in a woman's life? Part I: Women's long-term perceptions of their first birth experience. *Birth* 18(4): 203-210.

Simkin P (1992) Just another day in a woman's life? Part II: Nature and consistency of women's long-term memories of their first birth experiences. *Birth* 19: 64-81.

Simkin P (2002) Supportive care during labour: a guide for busy nurses. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 31: 721-732.

Singer B (2004) Elective cesarean sections gaining acceptance. *Canadian Medical Association Journal* 170(5): 775.

-
- Singh D and Newburn M (2001) Postnatal care in the month after birth. *The Practising Midwife* 4(5): 22-25.
- Singh T, Justin CW and Haloob RK (2004) An audit on trends of vaginal delivery after one previous caesarean section. *Journal of Obstetrics & Gynaecology*: 24(2): 135-8.
- Sjogren B (1998) Fear of childbirth and psychosomatic support. A follow up of 72 women. *Acta Obstetrica et Gynecologica Scandinavica* 77(8): 819-825.
- Sleutel M (2000) Intrapartum nursing care: a case study of supportive interventions and ethical conflicts. *Birth* 27(1): 38-45.
- Slade P, MacPherson S, Hume A and Maresh M (1993) Expectations, experiences and satisfaction with labour. *British Journal of Psychology* 32: 469-483.
- Small R, Lumley J, Donohue L, Potter A and Waldenstrom U (2000) Randomised controlled trial of midwife led debriefing to reduce maternal depression after operative childbirth. *British Medical Journal* 321(7268): 1043-1047.
- Smith J, Hernandez C and Wax J (1997) Fetal laceration injury at cesarean delivery. *Obstetrics and Gynecology* 90(3): 344-346.
- Smith J and Mitchell S (1996) Debriefing after childbirth: a tool for effective risk management. *British Journal of Midwifery* 4(11): 581-586.
- Soderquist J, Wijma K and Wijma B (2002) Traumatic stress after childbirth: the role of obstetric variables. *Journal of Psychosomatic Obstetrics and Gynaecology* 23: 31-39.
- Stark M and Finkel A (1994) Comparison between the Joel-Cohen and Pfannenstiel incisions in cesarean section. *European Journal of Obstetrics and Gynecology and Reproductive Biology* 53(2): 121-122.
- Statham H, Solomou W and Green J (2001) When a baby has an abnormality: a study of parents' experiences. Cambridge, Centre for Family Research, University of Cambridge and Mother and Infant Research Unit, University of Leeds.

-
- Strauss A and Corbin J (1998) *Basics of qualitative research. Techniques and procedures for developing grounded theory (2nd Edition)*. Thousand Oak, CA, Sage.
- Tabachnik B and Fidell L (2001) *Using Multivariate Statistics*. Boston, Allyn and Bacon.
- Tamminen T, Verronen P, Saarikoski S, Goransson A and Tuomiranta H (1983) The influence of perinatal factors on breastfeeding. *Acta Paediatrica Scandinavica* 72: 9-12.
- Tan W, Tan L, Tan H and Tan A (2003) Audit of 'crash' emergency caesarean sections due to cord prolapse in terms of response time and perinatal outcome. *Annals of the Academy of Medicine, Singapore*. 32(5): 638-641.
- Tarling M and Crofts L (1998) *The essential researcher's handbook*. London, Balliere Tindall.
- Taylor K and Copstick S (1985) Psychological care in labour. *Nursing Mirror* 161(4): 42-43.
- Taylor M (1991) Providing emotional support. *Nursing Times* 87(22): 66.
- Teddlie C and Tashakkori A (2003) Major issues and controversies in the use of mixed methods in the social and behavioural sciences. *Handbook of mixed methods in social and behavioural research*. A. Tashakkori and C. Teddlie. Thousand Oaks, CA, Sage: 3-50.
- Teijlingen E, Hundley V, Rennie A, Graham W and Fitzmaurice A (2003) Maternity satisfaction studies and their limitations: "What is, must still be best". *Birth* 30(2): 75-82.
- Thomas J and Paranjothy S (2001) National Sentinel Caesarean Section Audit Report. *Royal College of Obstetricians and Gynaecologists Clinical Effectiveness Support Unit*. Royal College of Obstetricians and Gynaecologist's Press.
- Tilden VP and Lipson JG (1981) Caesarean childbirth: variables affecting psychological impact. *Western Journal of Nursing Research*. 3(2): 127-49.
- Tinkler A and Quinney D (1998) Team midwifery: The influence of the midwife-woman relationship on the woman's experiences and perceptions of maternity care. *Journal of Advanced Nursing* 28(1): 30-35.

-
- Trowell J (1982) Possible effects of emergency cesarean section on the mother child relationship. *Early Human Development* 7: 41-51.
- Trowell J (1983) A research study of the mother / child relationship of a group of women admitted expecting a normal vaginal delivery. *Child Abuse and Neglect* 7: 387-394.
- Tuck S, Cardozo L, Studd J, Gibb D and DJ C (1983) Obstetric characteristics in different racial groups. *British Journal of Obstetricians and Gynaecologists* 90(10): 892-897.
- Tuffnell D, Wilkinson C and Beresford N (2001) Interval between decision and delivery by caesarean section - are current standards achievable? Observational case series. *British Medical Journal* 322: 1330-1333.
- Unicef (2004) Ten steps to successful breastfeeding, unicef.org/newsline/tenstps.
- Vestermark V, Hogdall C, Birch M, Plenov G and Toftager-Larsen K (1990) Influence of mode of delivery on initiation of breastfeeding. *European Journal of Obstetrics, Gynecology and Reproductive Biology* 38(1): 33-38.
- Waldenstrom U, Borg I-M, Olsson B, Skold M and Wall S (1996) The childbirth experience: A study of 295 new mothers. *Birth* 23(3): 144-153.
- Waldenstrom U (1999) Experience of labor and birth in 1111 women. *Journal of Psychosomatic Research* 47(5): 471-482.
- Waldenstrom U (2003) Women's Memory of childbirth at Two Months and One Year after birth. *Birth* 30(4): 248-254.
- Waldenstrom U (2004) Why do some women change their opinion about childbirth over time? *Birth* 31(2): 102-107.
- Waldenstrom U, Hildingsson I, Rubertsson C and Radestad I (2004) A negative birth experience: prevalence and risk factors in a national sample. *Birth* 31(1): 17-27.
- Walker R, Turnbull D and Wilkinson C (2002) Strategies to address global cesarean section rates: A review of the evidence. *Birth* 20(1): 28-39.

Weaver J, Statham H and Richards M (2001) High caesarean section rates among women over 30: High rates may be due to perceived potential for complications. *British Medical Journal* 323(7307): 284-285.

Webster J, Linnane J, Dibley L, Hinson J, Starrenburg S and Roberts J (2000) Measuring social support in pregnancy: can it be simple and meaningful? *Birth* 27(2): 97-101.

Weston R (2001) The influence of birth stories from friends and family members on primigravid women. *MIDIRS Midwifery Digest* 11(4): 495-500.

Wijma K, Ryding EL and Wijma B (2002) Predicting psychological well-being after emergency caesarean section: a preliminary study. *Journal of Reproductive and Infant Psychology* 20(1): 25-36.

Wijma K, Soderquist J and Wijma B (1997) Posttraumatic stress disorder after childbirth: a cross sectional study. *Journal of Anxiety* 11: 587-597.

Wills J and Deighton S (2002) Midwives performing instrumental deliveries. Programme development and personal reflection. *The Practising Midwife* 5(7): 22-25.

Whitford H and Hillan E (1998) Women's perceptions of birth plans. *Midwifery* 14(4): 248-253.

Wolman W, Chalmers B, Hofmeyr G and Nikodem V (1993) Postpartum depression and companionship in the clinical birth environment. *American Journal of Obstetrics & Gynecology* 168(5): 1388-1393.

World Health Organisation (1985) Appropriate technology for birth. *Lancet* 2: 436-437.

WHO (1989) Protecting, promoting and supporting breastfeeding: the special role of the maternity services. Geneva, Joint statement WHO/Unicef.

Wright H and Walker P (1983) Prediction of duration of breastfeeding in primiparas. *Journal of Epidemiology and Community Health* 37: 89-94.

Appendix 1

The typical procedure for emergency caesarean birth

Once the decision has been made that a caesarean birth is the most appropriate option the woman will be asked to sign a consent form to confirm that the procedure and its associated risks have been explained to her. She will be prepared for surgery, which entails putting on a clean theatre gown and removing jewelry and nail polish. She will have an intravenous infusion sited in one arm and a blood pressure cuff on the other. A catheter will be inserted into her bladder and her pubic hair shaved. If she is having a general anaesthetic, it is not customary for her partner to be with her during the birth. If she is having the caesarean under epidural or spinal anaesthesia, however, the partner is usually welcome in theatre. An obstetrician and an assistant perform the operation, supported by a scrub nurse and a runner, an anaesthetist and a midwife to take the baby. A paediatrician may be waiting just outside theatre to examine the baby when he or she is born. If the woman is awake, the level of anaesthesia is tested prior to swabbing the skin with antiseptic solution and draping the woman to create a sterile field. A screen is erected and draped so that the woman cannot see the operation. A transverse abdominal incision is made, followed by some tugging as the rectus abdominus muscles are separated by two surgeons working opposite each other. The peritoneum is dissected and the bladder is deflected downwards to expose the lower uterine segment which is incised transversely. Liquor escapes from the uterus and suction is used to provide a clear view of the uterus. The obstetrician locates the fetal head, which is delivered by hand or with forceps; the rest of the body follows and the umbilical cord is clamped and cut. The baby is shown to the parents over the drapes and taken to the attending paediatrician by the midwife. If the baby's condition is stable, it is wrapped up and brought to the parents, often held at the side of the mother's face so that she can see her new baby. The time from starting the operation to the birth of the baby is about 5 minutes, but it takes about 30 minutes to suture the uterus, peritoneum and abdominal skin, depending on the experience of the obstetrician.

Appendix 2

Search Strategy for literature review: psychosocial sequelae of emergency caesarean birth

1	Caesarean\$	31	Care adj3 labo\$
2	Cesarean\$	32	Control adj3 labo\$
3	Cesarian\$	33	Control adj3 childbirth
4	Caesarian	34	Expectations adj 3 childbirth
5	Surgical adj birth	35	Expectations adj 3 labo\$
6	1 or 2 or 3 or 4 or 5	36	Fulfillment adj 3 childbirth
7	Emergenc\$	37	Fulfillment adj 3 labo\$
8	Unplanned	38	Satisfaction adj 3 labo\$
9	Urgent	39	Satisfaction adj 3 childbirth
10	Unscheduled	40	Experience adj childbirth
11	Non adj elective	41	Experience adj labo\$
12	Crash	42	Impact adj3 birth
13	7 or 8 or 9 or 10 or 11 or 12	43	Feelings adj3 following
14	6 and 13	44	Recovery adj3 childbirth
15	Mode adj3 birth	45	Postnatal adj care
16	Mode adj3 delivery	46	Breastfeeding
17	Method adj3 birth	47	Bonding
18	Method adj3 delivery	48	Relationship adj3 baby
19	Type adj3 birth	49	Reaction adj3 baby
20	Type adj3 delivery	50	Coping adj3 baby
21	15 or 16 or 17 or 18 or 19 or 20	51	Fertility
22	Post\$ adj3 depression	52	Infertility
23	Negative adj3 birth	53	Conception
24	Positive adj3 birth	54	Reproductive adj3 decision
25	Emotional adj3 wellbeing	55	22 [or] to 54
26	Psychological adj3 wellbeing	56	55 and 21
27	Pyschological adj3 childbirth	57	55 and 14
28	Mental adj health	58	56 or 57
29	Perception adj3 birth	59	Limit to: English language, human, female
30	Fear adj3 childbirth		

Appendix 3

Core comparative studies: summary of the research

Bradley, Ross and Warnyca (1983) A prospective study of mothers' attitudes and feelings following caesarean and vaginal births.

This prospective study explored the prevalence of anxiety and depression in primiparous women by mode of birth. Of the 125 women who took part, 28 had an unplanned caesarean and 97 had a vaginal birth. Women had been recruited from prenatal classes and they completed questionnaires at about 20 weeks of pregnancy, one during the hospital postnatal stay and another at home one month after the birth. Eighty-nine percent of women were followed through to one month after the birth. Anxiety was measured using Spielberger's Strait Trait Anxiety Inventory (STAI) and depression was measured using Lubin's Depression Adjective Checklist at all three time points. Women's perceptions of their experience, care and feelings towards her baby were also measured. The findings of this study are limited in their transferability as all participants and their partners attended antenatal classes conducted by the project nurse and were part of a project which aimed to promote continuity of care and additional support for new parents. It is possible therefore that the impact of emergency caesarean was mediated by the extra care and attention women in the project received. It would have been useful to have been given more information about the project in order to establish exactly how this type of care differed from typical maternity services in the UK. Otherwise the paper was very clear and detailed in its presentation and the authors acknowledge the limitations of their study.

Chen CH and Wang SY (2002) Psychosocial outcomes of vaginal and cesarean births in Taiwanese primiparas.

The aim of this study was to explore the associations between mode of birth and postnatal depression, perceived stress, social support and self-esteem in primiparous women. Two hundred and seventy-five women were recruited six weeks after the birth of their baby: 194 had had a vaginal birth and 81 had had a caesarean birth. Depression was measured using the Beck Depression Inventory (BDI), perceived stress was measured using the Perceived Stress Scale (PSS), social support was measured using the Interpersonal Support Evaluation List (ISEL) Short form and self esteem was measured using the Self-Esteem Inventory (SEI). Although most of the analysis compared these two groups, results were presented comparing emergency caesarean with elective caesarean by method of anaesthetic and psychosocial outcomes. Part of the analysis compared women who had an emergency caesarean with women whose caesarean had been planned. Unfortunately, there were no comparisons presented between women who had emergency caesarean and vaginal birth and the actual number of women who had an emergency caesarean

was not reported. The results of the study have limited transferability as the impact of caesarean birth may have been mediated by the perceived benefit associated with the timing of the procedure being arranged to be culturally auspicious.

Cranley, Hedahl and Pegg (1983) Women's perceptions of vaginal and cesarean deliveries.

The purpose of this study was to explore women's perceptions of their birth and attitude towards their baby, considering the impact of involvement in decision making, presence of the partner and method of anaesthetic. A convenience sample of 122 women completed a questionnaire two to four days postnatally during their hospital stay: 40 had had a vaginal birth; 39 an emergency caesarean and 43 a planned caesarean. Both primiparous and multiparous women were included (n=53 and 69 respectively). Perception of the birth was measured using the Marut and Mercer's 'Perception of Birth scale', attitude towards the baby was assessed using the Leifer scale 'How I feel about my baby now' and involvement in decision making was assessed using the author's own 14 point scale. Other aspects of the experience that were assessed included attendance at childbirth classes, length of labour, infant feeding and overall satisfaction.

There is no information regarding how the sample was selected or how cases were matched. However, this paper is particularly valuable because the results are discussed with regard to how clinical practice can be changed to enhance women's experience of childbirth.

Durik, Hyde and Clark (2000) Sequelae of cesarean and vaginal deliveries: Psychosocial outcomes for mothers and infants.

This study aimed to explore the hypothesis that women who have an emergency caesarean would look back on their experience more negatively than women who had a vaginal birth and that this perception would result in less optimal interactions with their babies. Both primiparous and multiparous women were included and the sample comprised 56 women who had an emergency caesarean, 37 who had an elective caesarean and 477 who had a vaginal birth. They were recruited antenatally during the second trimester of pregnancy and were followed through at one month, four months and twelve months after the birth. Mother and infant interactions were observed, recorded and assessed using the Parent-Child Early Relational Assessment scale (PCERA) at four and twelve months postnatally. The authors assessed women's appraisal of the birth experience using ten statements about the birth, which were scored on a scale from one to four. The Eysenck Personality Inventory was used to assess neuroticism during pregnancy. Depression was measured using the Center for Epidemiologic Studies Depression Scale during pregnancy and at one and four months postnatally. Self esteem was measured using Rosenberg's self-esteem scale at one and again four months postnatally.

This study appears to have been conducted rigorously and has been reported in detail.

Fawcett, Pollio and Tully (1992) Women's perceptions of cesarean and vaginal delivery: Another look.

The stated aim of this research was to compare women's perceptions of birth by mode of birth and to identify the correlates of such perceptions. Four hundred and seventy three women were recruited from antenatal childbirth classes and postnatally from two hospitals. Of these, 106 had emergency caesareans, 113 had planned caesareans and 254 had vaginal births and were a mixture of both primiparous and multiparous women. They completed questionnaires within one to two days of the birth, whilst they were still in hospital. Their perception of the birth was measured using the Marut and Mercer's 'Perception of Birth scale' and data regarding pain and physical distress were also collected

There were some methodological problems with this study, for example, women in the different groups were recruited by different methods. There were also significant demographic differences between the groups that were not taken into account during analysis, thus limiting the interpretation of these results.

Field and Widmayer (1980) Developmental follow-up of infants delivered by caesarean section and general anaesthesia.

One of the aims of this study was to consider the impact of caesarean birth (separation from the baby, prolonged hospital stay and anaesthetic agents) on the development of the child. Both primiparous and multiparous women (n=40) took part in this study but recruitment procedures were not presented: 20 had had an emergency caesarean birth and 20 had had a vaginal birth. All the infants were full term and healthy at birth. Assessment of the infant and women in the neonatal period were made using the following measures: Mother's Assessment of the Behaviour of her Infant (MABI) adapted from the Brazelton Neonatal Behavioural Assessment Scale; the Perinatal Anxieties and Attitudes Scale (PAAS), the State-Trait Anxiety Scale and the Maternal Developmental Expectations and Childrearing Attitudes Survey (MDECAS). When the infant was four months old, assessments took place in the home and included: Denver Developmental Screening Test; the Carey Infant Temperament Questionnaire; the State-Trait Anxiety Scale; MDECAS; filmed mother-infant feeding and face-to-face play interactions. When the infant was eight months old further assessments took place in the home and included: The Bayley Scales for Infant Development; the Caldwell Home Stimulation Inventory and the Carey Infant Temperament Questionnaire. None of the scales were described.

Of concern is the discussion around interpretation of the results. For example, the authors acknowledge that their results are not consistent with other studies. They then go on to suggest that this might be explained by the fact that babies born vaginally have the added stress of negotiating

the birth canal, but this would also have applied to babies in other studies. There were many tenuous explanations for unexpected findings.

Garel, Lelong and Kaminski (1987) Psychological consequences of caesarean childbirth in primiparas.

The aim of this study was to compare women who had a caesarean or a vaginal birth, from a psychosocial point of view. Two hundred and six women were interviewed between three and six days after the birth: 103 had had a caesarean (61% were emergency procedures) and 103 had had a vaginal birth. The semi-structured interviews aimed to draw out information about women's memories of the birth and early postnatal period. Most of the results that referred to the caesarean group combined women who had had an emergency caesarean with those who had had an elective caesarean, however some distinctions were made in the text between the two groups. Garel, Lelong and Kaminski (1988) also published results of a two-month and a one-year follow up then a further four-year follow up (Garel, Lelong, Marchand and Kaminski 1990) of the same cohort of women. However, no distinctions were made between outcomes for emergency or elective caesareans in either of these papers and therefore they were not included in the review.

Hillan (1992a) Maternal – infant attachment following caesarean delivery

Hillan (1992b) Research and audit: women's views of caesarean section

The aim of this study was to explore the short and long-term effects of caesarean birth for the woman and her baby. Two groups of primiparous women, matched for demographic and physical characteristics, were compared: 50 who had had an emergency caesarean birth and 50 who had had a vaginal birth (27 of these had forceps and 23 a spontaneous birth). It is unclear if any data were collected in relation to emotional wellbeing as none were presented. This paper relates mainly to maternal - infant attachment and also presents data regarding the increased physical morbidity associated with caesarean birth.

Data were collected at three time points after the birth: three or four days (semi-structured interview); three months (postal questionnaire) and at six months (semi-structured interview). Eighty-six percent of women were followed through to six months. Women were asked questions about their relationship with their baby, for example, how long it took them to feel close to their baby.

Detail regarding the precise timing and nature of the questions was limited, indeed no information was provided regarding the content or results of the postnatal questionnaire. Asking women six months after the birth to make a judgement about when they felt close to their baby is problematic in terms of accuracy of recall.

Kochanevich-Wallace, McCluskey-Fawcett, Meck and Simons (1988) Method of delivery and parent-newborn interaction.

This study was designed to determine whether mode of birth was related the women's relationship with her baby. Eighty women were recruited two days after the birth: 20 primiparous women following a vaginal birth, 20 multiparous women following a vaginal birth, 20 primiparous women following an emergency caesarean birth and 20 multiparous women following a repeat caesarean birth. All assessments were made two days after the birth whilst the woman was still in hospital. Feeding interaction was assessed using the Osofsky feeding scale, newborn capabilities were assessed using the Brazelton Neonatal Behavioural Assessment Scale (BNBAS), maternal perceptions of the behaviour of her baby were assessed using the Neonatal Perception Inventory (NPI) and maternal anxiety was assessed using the State-Trait Anxiety Inventory (STAI). The authors used their own questionnaire to explore maternal attitudes to the birth, their baby and baby care responsibilities.

The study is limited in that parent-newborn interactions were assessed two days after the birth and while they were still in hospital. It is possible that such relationships could change when the different rates of postnatal recovery associated with assisted birth became evident with the passing of more time. The potential confounders of maternal pain or morbidity were not measured or discussed.

Maclean, McDermott and May (2000) Method of delivery and subjective distress: women's emotional response to childbirth practices.

This study investigated postnatal distress by mode of birth. Forty primiparous women were recruited on the postnatal ward. Ten had experienced an emergency caesarean, 10 had experienced an instrumental birth and 20 had experienced a spontaneous vaginal birth, 10 of whom had had labour induced. The authors compiled their own questionnaire booklet that included the Impact of Event Scale (IES) and the Hospital Anxiety and Depression Scale (HADS) which was posted to the women six weeks after the birth.

This study is limited by its small sample size, which precluded further investigation of the main finding. Key variables, for example method of analgesia, were not described rendering the results difficult to interpret.

Marut and Mercer (1979) Comparison of primiparas' perceptions of vaginal and cesarean births

Marut and Mercer (1981) The cesarean birth experience: Implications for nursing

The aim of the study was to compare the perceptions of women who had experienced either a vaginal or emergency caesarean birth and was conducted in the United States. Fifty primiparous

women were recruited on the postnatal ward: 20 had experienced an emergency caesarean and 30 had experienced vaginal birth. They were interviewed on the ward within 48 hours of the birth and then asked to complete a 29-item questionnaire.

This study was enhanced by the use of both qualitative and quantitative data collection. The authors acknowledge the limitations of the study and make relevant recommendations for practice and future research.

Padawer, Fagan, Janoff-Bulman, Strickland and Chorowski (1988) Women's psychological adjustment following emergency caesarean versus vaginal delivery.

This US study was designed to explore potential differences in postnatal satisfaction and psychological adjustment between women who had either an emergency caesarean or a vaginal birth. Forty-four women were recruited on the postnatal ward within 48 hours of the birth; 22 following a spontaneous vaginal birth and 22 following an emergency caesarean. Depression was measured using the Depression Adjective Checklist and anxiety by the State-Trait Anxiety Inventory (STAI). Women's confidence in their ability to mother their baby was measured using a modification of the Maternal Self-Report Inventory (MSRI). The authors designed their own Childbirth Perceptions Questionnaire (CPQ) to assess satisfaction which explored aspects of physical appearance, mode of birth and interaction with their partner during the birth. Finally, a modification of the Pregnancy Symptoms Questionnaire was used to assess physical and affective symptoms postnatally. Women who consented to the study were asked to complete the questionnaires within 24 hours.

The selection criteria for the samples precludes the generalisation of the results of this study to a wider population. For example, all women had attended antenatal classes, had regional anaesthesia (for caesarean), had no underlying medical conditions and all babies were well. However, the authors acknowledge the limitations of the study, including the limited time frame for data collection.

Ryding, Wijma and Wijma (1998a). Psychological impact of emergency caesarean section in comparison with elective caesarean section, instrumental and normal vaginal delivery.

The aim of this Swedish study was to compare the psychological wellbeing of women according to their mode of birth. Three hundred and twenty six women completed questionnaires a few days after the birth and one month postnatally, 71 experienced an emergency caesarean, 70 an elective caesarean, 89 an instrumental birth and 96 a spontaneous vaginal birth. The measures used included: the Wijma Delivery Expectancy/Experience Questionnaire; the Impact of Event Self-rating Scale and the Symptoms Check list.

This prospective study was well designed and clearly reported. The authors acknowledge differences in obstetric practices in Sweden that should be taken into account when interpreting the data. For example, the low prevalence of instrumental birth in Sweden may explain in part the negative perceptions of women who experience this mode of birth.

Schindl, Birner, Reingrabner, Joura, Husslein and Langer (2003) Elective cesarean section versus spontaneous delivery: a comparative study of birth experience.

The aim of this Austrian study was to compare the experiences of women who planned a caesarean birth compared with those who planned a vaginal birth. Women were recruited antenatally at 38 weeks gestation. One thousand and fifty women were assisted to complete questionnaires antenatally and three days after the birth, 93 had experienced an emergency caesarean, 147 an elective caesarean, 41 an instrumental birth and 769 a spontaneous vaginal birth. They were all sent a questionnaire four months after the birth but only 24% of the women completed it. The measures used included the Zerrsen test to assess current mood; birth experiences questionnaire developed by Salmon and Drew (which explores expectations and experiences of birth) and the SCL-90-R personality test (at four months only). There was no explanation regarding which data were used in analyses to make the comparisons over time, as it is possible that those who did not respond at four months postpartum were a very different group of women.

The authors did not report any limitations of the study and their recommendations based on it are unsubstantiated. They failed to discuss in the text the changes in mood and assessment of experience at 4 months which were evident from the graphs and would contradict their recommendations.

Soderquist, Wijma and Wijma (2002) Traumatic stress after childbirth: the role of obstetric variables.

The aim of this study was to explore whether the incidence of post traumatic stress disorder was related to a stressful birth. Data from 1550 women were collected and analysed, although it was not clear precisely when the data were collected, other than it had to be four weeks after the event in order to comply with the full criteria for PTSD. Modes of birth were represented as follows, 75 women experienced emergency caesarean birth, 86 an instrumental birth, 70 an elective caesarean and 1319 a spontaneous vaginal birth. The Traumatic Event Scale (TES) was used to assess for PTSD symptoms. Other than the lack of clarity regarding the timing of data collection this study appears to have been conducted and reported rigorously.

Trowell (1982) Possible effects of emergency caesarian section on the mother-child relationship

Trowell (1983) A research study of the mother / child relationship of a group of women expecting a normal delivery.

The aim of this study was to explore the mother-infant relationship in women who had an emergency caesarean birth and compare them with women who had a spontaneous vaginal birth. Primiparous women were recruited following the birth: 16 had an emergency caesarean under general anaesthetic and 18 had a spontaneous vaginal birth with no epidural or syntocinon. At a home visit one month after the birth, mother-infant interaction was observed and categorised under gross contact, slight contact, distance interaction and vocalisation. The mother then took part in a semi-structured interview, which was recorded and transcribed verbatim. When the child was one year old the same procedure was repeated and additional observations of play were made. After the visit, the mother and child attended the clinic for a Strange Situation Test. Further follow up at three years was reported in 1983 when four additional measures were employed; a modified Richman 3-year-old questionnaire, the Reynell Developmental Language Scale, the Vineland Social maturity Scale and the Draw a Man Test.

This study compares two groups of women experiencing extremes with regard to obstetric intervention and the results should be seen in this light. The caesarean mothers were more likely to have difficult relationships with the child's father and have a higher incidence of death and serious illness amongst grandparents. The sample size was too small to account for these potentially related variables.

Appendix 4

Developing the research questions	
<p style="text-align: center;">Personal experience:</p> <p style="text-align: center;">That the impact of women's experience of emcs endures and has the potential to impact on the lives of others</p> <p style="text-align: center;">Q What are the long-term sequelae of emcs* on women?</p>	<p style="text-align: center;">Greater Expectations?:</p> <p style="text-align: center;">That women who have an emcs are less satisfied six weeks after birth than other women</p> <p style="text-align: center;">Q Why are women who have an emcs less satisfied than other women?</p>
<p><i>Following reflection on the findings of 'Greater Expectations?', my own personal experiences and a preliminary look at the literature:</i></p> <p>Q What influences how women feel looking back at the experience of birth three years later?</p> <p>Q Do women who have emergency caesarean birth have a lower postnatal emotional well being than other women?</p> <p>Q How does women's experience of birth impact on their decision about future births?</p>	
<p>Literature review:</p> <p>Few studies were able to consider how antenatal expectations Impact on women's experience of birth</p> <p>Many studies were small</p> <p>Few studies combined both quantitative and qualitative methods</p> <p>Few studies distinguished between emcs and other modes of birth</p> <p>Few studies used multivariate techniques to examine predictors of dissatisfaction with the birth experience</p> <p>Few studies explored intrapartum care in relation to women who had emcs</p> <p>No studies explored postnatal care in relation to women who had emcs</p> <p>Few studies looked at the long term sequelae of emcs</p>	

* emcs abbreviation for emergency caesarean birth

Feasibility in my circumstances:

Explore impact of emcs on women 3 –4 years after the event with the ability to take account of their antenatal expectations and labour experiences.
using both quantitative and qualitative methods

Revised questions:

What factors influence a woman's appraisal of her birth experience three years later?

- Which maternal characteristics predict a negative appraisal of the birth three years later?
- Which antenatal factors predict a negative appraisal of the birth three years later?
- Which intrapartum factors predict a negative appraisal of the birth three years later?
- Which postnatal factors predict a negative appraisal of the birth three years later?
- What factors predict a negative appraisal of the birth experience three years later for women who had an emergency caesarean?

How do women who have emcs perceive their intrapartum care(rs)?

- How do women who have either spontaneous, instrumental, elective and emergency caesarean perceive their carers?
- What staff behaviour helped women who had an emergency caesarean feel safe?
- What staff behaviour gave women who had an emergency caesarean cause for concern?
- How was trust developed for women who had emergency caesarean?

What are the short and long-term sequelae of emergency caesarean on women?

- How does emergency caesarean impact on women's subsequent emotional well being in the short (six weeks after birth) and long term (three years after birth)?
- How does emergency caesarean influence women's experience of postnatal care and recovery?
- How does emergency caesarean influence the initiation or duration of breastfeeding?
- How does emergency caesarean influence women's relationship with their baby?
- How does the experience of emergency caesarean influence women's decisions about subsequent births?

Appendix 5

Mother and Infant Research Unit

22 Hyde Terrace, Leeds LS2 9LN.

Telephone 0113 343 1569

Summer 2003



Childbirth Study

Thank you for taking part in the Childbirth study back in 2000. We have been busy writing up a report and hope to publish the results in book form in the near future. If you said you would like a copy of the results, a summary will be forwarded to you shortly. Parts of the study have also been presented at conferences and others will be published in professional journals. This means that the information that you gave us can now be used to help make future maternity services meet the needs of women.

Once again a HUGE thank you.

It will not have escaped your notice that we have enclosed another questionnaire! This new questionnaire was not just an after thought, but a result of the many different experiences that women encountered during the birth of their babies. We felt that it would be very valuable to find out how these experiences have impacted on you since then, and indeed, how you feel about your experiences now.

Lots of things will have happened to you since we were last in touch – some good and some bad. We are interested to know about anything that you want to tell us, but we don't mean to be intrusive, and we apologise if receiving this letter upsets you in any way. We understand that you may not want to complete all or any of the enclosed questionnaire, and if you simply return the blank questionnaire in the prepaid envelope (with or without a covering note), then we won't trouble you again.

We very much hope that you will continue to give your support to this important study. Even if you feel that you do not have any particularly strong feelings about your experiences, or you do not usually fill in questionnaires, please DON'T throw away this one because we want to know your thoughts just as much as everyone else's.

We would be very grateful if you could complete the questionnaire and return it in the enclosed FREEPOST envelope as soon as possible.

Again, everything you tell us will be treated as confidential.

If you have any queries please don't hesitate to contact us.

Many thanks
Yours sincerely

Helen Baston

Josephine Green

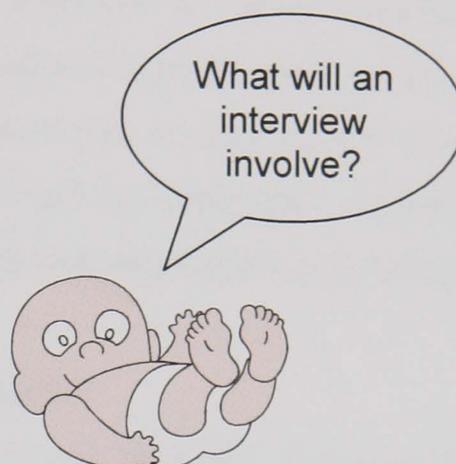
Appendix 6

Mother and Infant Research Unit

22 Hyde Terrace, Leeds LS2 9LN.

Telephone 0113 343 1569

August 2004



Childbirth Study – Interview Information Letter

Thank you for returning your questionnaire. You indicated that you might be prepared to take part in an interview. I am therefore writing to tell you more about what would be involved.

What is the study about?

We have now had the chance to look in detail at all of the 3 year follow up questionnaires. Women have told us about the kinds of things that helped them during their childbirth experience and also about some things that were not very helpful. What I aim to do by interviewing about 35 women is to find out what contributed to either their positive or negative feelings.

Who will interview me?

All interviews will be carried out by myself. I am a researcher at the Mother & Infant Research Unit at Leeds and I am also a midwife and mother.

What will the interview involve?

I will arrange a time that suits you and come and visit you at home. The interview will be very informal. I may have a card with a few ideas of things I want to ask you but not a long list of questions. Talking about the birth will bring back memories, some good and

others that may be difficult for you. The interview will last about 1 hour but you will be free to stop the interview at any time.

What will happen to what I tell you?

So that I can concentrate on what you are telling me and don't miss anything important, I would like to tape the interview. After the interview, back at the research unit, the tape will be played and what you (and I) said, typed up (transcribed). Tapes will be kept secure in a locked drawer and you will not be identified by name on either the tape or the transcript. The only people that will hear the tape or see it typed up will be myself and two senior researchers. If you wish, I could send you a copy of the interview once typed or even return the tape to you, otherwise it will be destroyed. Eventually, the research will be written up, but again you are assured that any report or publication will not identify you.

Why do I need to sign a consent form?

It is entirely up to you whether or not you take part and you need to know what you are letting yourself in for. The consent form is your way of indicating that you have read the information I have provided and that you are happy to take part under those circumstances. Please note that you are still free to change your mind at *any time* even after you have signed.

What do you do next?

I will telephone to arrange a date and time that fits in with you.

If you have any queries please don't hesitate to contact me.

Many thanks

Yours sincerely

Helen Baston

Appendix 7

Mother & Infant Research Unit
University of Leeds
22 Hyde Terrace
Leeds LS2 9LN

Telephone 0113 343 1569

March 2004

Childbirth Study – Interview Consent Form

I.....confirm that
(print name)

- I have read and understand the information letter
- I agree to take part in a taped interview in my own home
- I understand that the information I provide will be kept confidential
- I know I will not be identified in any written report or publication
- I know that I can withdraw from the study at any time

Signed.....

Date.....

Appendix 8

Topic guide for in depth interviews

Before tape

Start at superficial level – general chit chat e.g. *How old is ...JIMMY... now?*

Introduction to the study – objectives and confidentiality

'This study is focussing on women's experiences of having a baby and in particular how things went in when you had ...JIMMY... in 2000.

I want to know about negative as well as positive memories. When we write up the report the hospitals are given made-up names and you are not named on the tape or when it is written up. Everything you say will be treated confidentially. We can stop the interview at any time'.

Tape on

Logical ordering of subsequent topics

What can you remember about going into labour?

"can you tell me more about that?"

"what happened after that?"

"Why is that?"

"Why do you think that was?"

"I'm not quite sure what you mean?"

What was the midwife like?

"Does any member of staff stand out as being particularly helpful/ unhelpful?"

"how did you get on with her"

"did you meet other staff?"

"what were they like?"

"how did you feel when they were caring for you?"

"why was that?"

How did you decide what pain relief to have?

"why was that?"

"how do you feel now about the choices you made?"

How was the decision made that you needed a caesarean?

"who was involved?"

"how did you feel about the decision?"

"why was that?"

"what can you remember about the room?"

"can you remember what the midwife / doctor said to you ?"

What do you remember about the actual birth? (if awake)

“who was there?”

“who was looking after you?”

“how did you feel in theatre?”

“why was that?”

“how did you feel when you first saw JIMMY?”

“when did you first hold him?”

What was it like on the postnatal ward?

“what were the staff like?”

“what do you mean?”

“why do you think that was?”

“what was visiting time like?”

“what was it like at night?”

“why is that?”

“how long would you have liked to stay in ideally?”

What was it like when you came home from hospital?

“how did you feel?”

“why was that?”

“who looked after you?”

“how did you feel when the midwife stopped visiting?”

“how long was it before you felt ‘back to normal’?”

Looking back on your experience in 2000 how do you feel now?

“what did you expect the birth would be like”

“have you changed how you feel about the birth”

“why is that?”

“what would an ideal birth be like for you?”

“why do you feel that way?”

?more children ...depends on questionnaire response...

Ideas and suggestions left to the end

“If you could speak to the midwives who cared for you, what would you say?”

“What about the doctors? (other staff)”

“How could they have made your experience different?”

“what advice would you give someone having their first baby now?”

Appendix 9

Measures used in the binary logistic regression models presented in Chapter 5

Introduction

This appendix presents the measures used to assess the concepts which were identified as having the potential to influence how women feel looking back on their experience of birth three years later (see Figure 4.1).

The appendix is divided into antenatal, intrapartum and postnatal concepts and each are subdivided. Prior to each question, an abbreviation is given indicating in which questionnaire and on what page the question was asked, to enable the reader to regard it in context. Where the questions were recoded for the purpose of analysis, details of the new categories are provided. The following abbreviations were used:

- ANQ1= the first antenatal questionnaire sent to women at 28-29 weeks of pregnancy
- ANQ2= the second antenatal questionnaire sent to women at 35 weeks of pregnancy
- PNQ= the postnatal questionnaire sent to women 6 weeks after the index birth
- FQ= the follow-up questionnaire sent to women 3 years after the index birth (located in back pocket of thesis)

Pre-pregnancy and antenatal measures

Demographic and antenatal variables were collected at 28- 29 weeks of pregnancy and at 35 weeks of pregnancy by postal questionnaire. Assessment of antenatal information was made in the postnatal questionnaire at 6 weeks and further details regarding obstetric history were collected in the follow-up questionnaire at three years.

The following questions were used to assess the antenatal concepts:

Age, education and social class

Q (ANQ 1, page 6, Q 25) *How old are you?* Responses were categorised (in years): 'less than 21'; '21 to 34' and '35 or over'.

Q (ANQ 1, page 7, Q 29) *What is your highest educational qualification?* Responses were categorised into in 4 groups: 'Degree or above'; ''A' levels or equivalent'; 'GCSE or equivalent' and 'no qualifications'.

Q (ANQ 1, page 7, Q 31) *Could you briefly tell us the jobs you have had since you left school? (E.g. shop assistant, factory worker, teacher, mother).* The highest status job was coded based

on Standard Occupational Classification, major groups (2000). They were coded: never worked: professional; associate professional and technical: clerical / secretarial: skilled / craft related: personal and protective service; sales; plant and machine operator; senior management – large organisations; senior management – small organisations; junior management / supervisory administration; mother / housewife and other.

Personality, antenatal mood and relationships

There was no measure of personality.

Q (*ANQ 2, left inside page, Q 2*) *During your pregnancy would you say that overall you have been reasonably cheerful or have you been feeling depressed or low-spirited?* The response options were: ‘reasonably cheerful most of the time’; ‘depressed or low-spirited most of the time’; ‘mood swings from one extreme to the other’ and ‘other (please say what)’. Unfortunately this question had been inadvertently omitted from the first antenatal questionnaire and was stapled into the front of the second antenatal questionnaire. 16% of the original respondents were either not asked or did not answer this question.

Q (*ANQ 1, page 6, Q 27*) *Are you currently: married (or living as married)?* The response options were: ‘single’; ‘divorced’; ‘widowed’ and ‘separated’. The majority of women were either married or living as married (95%) with no differences between those who were happy or unhappy looking back. Some measure of the supportive nature of the relationship, where there was a partner, is given in the support questions (see postnatal section).

Previous birth experience

Q (*ANQ 1, page 2, Q1*) *Have you had any children before?* Women were categorised as multiparous if they had given birth before and primiparous if they had not. Women who had previously had a spontaneous vaginal birth were identified from the follow-up questionnaire.

Fear of pain in labour

Q (*ANQ 2, page 19, Q E4*) *Are you worried about the thought of pain in labour?* Response options were: ‘no I’m not worried about it at all’; ‘yes I’m a bit worried about it’ and ‘yes I’m very worried about it’. For analysis, ‘a bit’ and ‘not at all’ were grouped together and compared with ‘very worried’.

Attitude towards intervention

Q (*ANQ 2: page 18 Q E6; pages 24-25, Q’s F1 – F5 25; page 28, F16*) *‘Attitude to intervention’*. Based on women’s response to 7 questions which assessed their attitude to intervention (drugs

for pain relief, induction, acceleration, forceps, episiotomy, continuous electronic fetal monitoring and elective caesarean) an 'attitude to intervention' score was created (continuous variable)

- Q (ANQ 2, page 18 Q E6) *Which of these options would you prefer ideally?* Response options were: 'the most pain-free labour that drugs can give me'; 'the minimum quantity of drugs to keep the pain manageable'; 'to put up with quite a lot of pain in order to have a completely drug-free labour' and 'other'.

Labour preferences and expectations

- Q (ANQ 2, page 17 Q D14b) *Do you expect that giving birth will be a fulfilling experience?* Response options were: 'yes I'm sure that it will be'; 'yes I think it probably will be'; 'I don't have any expectations'; 'no I think it probably won't be' and 'no I'm sure that it won't be'. For analysis, categories 'yes I'm sure' and 'yes I think' were grouped together as were 'no I think' and 'no I'm sure'.
- Q (ANQ 2, page 15 Q D11a) *How important is it not to lose control of the way you behave during labour?* Response options were: 'very important'; 'quite important'; 'not very important' and 'not at all important'.
- Q (ANQ 2, page 15 Q D11b) *Do you expect that you will lose control of the way you behave during labour?* Response options were: 'I'm sure that I will'; 'I think I probably will'; 'I don't have any expectations'; 'I think I probably will not' and 'I'm sure that I won't'.
- Q (ANQ 2, page 15 Q D10a) *Do you want to be in control of what midwives and doctors do to you during your labour?* Response options were: 'yes I want this very much'; 'yes I would quite like this'; 'I don't mind'; 'no I would prefer not to be' and 'I definitely do not want to be'.
- Q (ANQ 2, page 15 Q D10b) *Do you expect to be in control of what midwives and doctors do to you during your labour?* Response options were: 'yes I'm sure that I will be'; 'yes I think I probably will be'; 'I don't have any expectation'; 'no I think I probably won't be' and 'no I'm sure I won't be'.
- Q (ANQ 2, page 1, Q D8a) *Assuming there are no complications, who do you think should make most of the decisions about your labour?* Response options were: 'staff should just get on with it that is their job'; 'staff should make the decisions but I'd like to be kept informed'; 'staff should discuss things with me before reaching their decision'; 'staff should give their assessment of the situation but I should be the one in control of the decision' and 'I don't

- mind'. For analysis, the category 'I should be in control' was compared with the remaining categories grouped together.
- Q (ANQ2, page 13, Q D8b) *Assuming there are no complications, who do you expect will make most of the decisions about your labour?* Response options were: 'I expect that the staff will just get on with it'; 'I expect that the staff will make decisions but keep me informed'; 'I expect that the staff will discuss things with me before reaching a decision'; 'I expect that staff will give me their assessment of the situation but that I will be the one in control of the decision' and 'I don't have any expectations'. For analysis, the category 'I will be in control' was compared with the remaining categories grouped together.
- Q (ANQ2, page 8, Q D2a) *Do you want to be able to move about and change position during labour?* Response options were: 'yes I want this very much'; 'yes I would quite like this'; 'I don't mind'; 'no I would prefer not to have this' and 'no I definitely do not want this'. For analysis, the category 'very much' was compared with the remaining categories grouped together.
- Q (ANQ2, page 8, Q D2b) *Do you expect to be able to move about and change position during labour?* Response options were: 'Yes I'm sure this will happen'; 'yes I think it probably will happen'; 'I don't have any expectations'; 'no I think it probably won't happen' and 'no I'm sure that it won't happen'.
- Q (ANQ2, page 10, Q D5a) *Do you want to have one midwife who sees you through your labour from start to finish?* Response options: 'yes I want this very much'; 'yes I would quite like this' 'I don't mind'; 'no I would prefer not to have this' and 'no I definitely do not want this'. For analysis, the category 'very much' was compared with the remaining categories grouped together.
- Q (ANQ2, page 10, Q D5b) *Do you expect to have one midwife who sees you through your labour from start to finish?* Response options were: 'yes I'm sure this will happen'; 'yes I think it probably will happen'; 'I don't have any expectation'; 'no I think it probably won't happen' and 'no I'm sure that it won't happen'. For analysis, the category 'I'm sure' was compared with the remaining categories grouped together.
- Q (ANQ2, page 17, Q D15) *Do you have a preference about which position you give birth in?* Response options were: 'yes'; 'no' and 'don't know'.

Perception of information received

- Q (PNQ, page 34, Q F5) *Looking back over your pregnancy, do you feel that overall you had been given:* (response options were): 'too much information'; 'the right amount of information'; 'too little information'; 'and too much about some things, too little about others'. For analysis women who had the 'right amount' were compared with the others.

- Q (PNQ, page 35, Q F8a) *Were you given information that you thought was: inaccurate, incomplete or misleading?* Response options for each were: 'yes' and 'no'.
- Q (PNQ, page 35, Q F8b) *Were you given information that you thought was: contradictory or confusing?* Response options for each were: 'yes' and 'no'.

Labour and birth measures

What happened during labour was assessed by postal questionnaire at 6 weeks and 3 years after the birth. The following questions were used to assess the labour outcomes (please note that women who had elective caesarean are excluded from labour analysis):

Mode of birth

- Q (FQ, page 11, Q C12) *What kind of birth did you have?* Response options were: 'planned caesarean (elective)'; 'unplanned caesarean (emergency)'; 'vacuum (ventouse)'; 'forceps' and 'normal (vaginal)'. For analysis, vacuum and forceps were grouped together as 'instrumental'.

Length of labour

- Q (PNQ, page 6, Q B15) *Approximately how long was your labour?....hours.* This measure was entered as a continuous variable.

Comfort, pain and response to pain

- Q (PNQ, page 25, Q D7) *Were you able to get into the positions that were most comfortable for you during labour and delivery?* The response options were: 'no hardly ever'; 'yes some of the time' and 'yes all of the time'. For analysis these were collapsed into 'no' and 'yes'.
- Q (PNQ, page 24, Q D2) *Were you able to move about and change position during labour?* The response options were: 'yes for all or most of the time'; 'yes for some of the time' and 'no not at all'.
- Q (PNQ, page 22, Q C39) *Was the pain in labour exactly as you expected it to be?* The response options were: 'no not at all'; 'yes in some ways' and 'yes exactly'. For analysis these were collapsed into 'no' and 'yes'.
- Q (PNQ, page 14, Q C1) *Did you have an epidural?* (asked in a section headed – 'Dealing with pain in labour'). The response options were: 'yes', 'no' and 'not sure'.
- Q (PNQ, page 23, Q C41) *Could you tell us how painful you found labour overall by giving it a score out of 10. Ten out of ten would mean excruciatingly painful and nought out of ten would mean no pain at all. Overall pain of labour (score out of ten).....*The responses were categorised: low pain (5 or less), medium pain (6-8) and high pain (9 or more).

Q (PNQ, page 23, Q C42) Overall, how do you feel about the way you responded to the pain of labour? The response options were; satisfied, neither particularly satisfied nor dissatisfied and dissatisfied. For analysis these were collapsed into 'satisfied' and 'other'

Perceptions of the staff

Q (PNQ, page 28, Q D22) Do you feel you were treated as an individual? The response options were: 'yes always'; 'yes by most of the staff'; 'only by a few of the staff' and 'no not at all'. For analysis this question was combined with the following one and women who answered 'yes always' were in one category and the rest in another

Q (PNQ, page 28, Q D23) Do you feel you were treated with respect? The response options were: 'yes always'; 'yes by most of the staff'; 'only by a few of the staff' and 'no not at all'.

Q (PNQ page 26, Q D13) Was there at least one midwife who saw you through your labour from start to finish? The response options were: 'yes'; 'no' and 'not sure' (no-one chose the last option).

Q (PNQ, page 26, Q D14) Were you (and your companion) left alone by staff at a stage when it worried you to be alone. The response options were: 'yes during labour'; 'yes after the birth in the delivery room' and 'no neither'. For analysis and focusing on labour, responses were categorised 'not left alone' and 'left alone'

Q (PNQ, page 28, Q D21) Staff adjectives (2003). The follow-up questionnaire replicated a grid of sixteen adjectives which women were asked to circle if they felt the words described any member of staff who had cared for them around the time of their baby's birth. To get a measure of how women's long term perceptions of the staff related to their feelings about the birth, the staff adjectives chosen in the follow-up questionnaire were the independent variables in binary logistic regression (looking back=dy). There were 6 positive adjectives (supportive, informative, humorous, sensitive, warm and polite) and 8 negative ones (rushed, unhelpful, rude, off-hand, bossy, insensitive, inconsiderate and condescending). For analysis, if an adjective was chosen it was coded 'yes' if not it was coded 'no'.

Intervention and complications

Q (PNQ, page 4, Q B1) Were you given any drugs, either in the form of a drip or a pessary (a vaginal tablet), to induce your labour? The response options were: 'yes', 'no' and 'not sure'. For analysis, 'not sure' was excluded as this was a small group (n=3)

Q (PNQ, page 8, Q B23) Were you given any drugs in the form of a drip to accelerate your labour? The response options were: 'yes', 'no' and 'not sure'.

- Q (FQ, page 15, C32) *Did you feel that your baby was in danger at any time during the birth?*
Response options were: 'yes' and 'no'.
- Q (FQ, page 15, C33) *Did you feel that your life was in danger at any time during the birth?*
Response options were: 'yes' and 'no'
- Q (FQ page 15, Q C32) *Did you feel that your baby was in danger at any time during the birth?*
The response options were: 'yes' and 'no'.

Hopes for birth fulfilled

- Q (ANQ2, page 13, D8b and PNQ, page 27, D19) With regard to non-emergency decision making, a new variable was created which matched what women expected would happen, with the categories: 'got what I expected'; 'had less involvement than expected' and 'had more involvement than expected'.
- Q (ANQ2, page 21, Q E10 and PNQ, page 14, Q C1) *How do you feel about using an epidural for pain relief in labour?* Response options were: 'I don't know enough to make a choice'; 'I definitely don't want'; 'I prefer not to have'; 'I don't mind'; 'I would quite like' and 'I definitely do want'. This question was asked antenatally and a new variable was created to match women's preferences with what happened in labour. The categories were: pro epidural and got one, anti epidural and didn't get one, neutral and got one, pro epidural and didn't get one, anti epidural and didn't get one and neutral and didn't get one.
- Q (PNQ, page 29, Q D27) *Did you get what you wanted?* (preceded by; was there anything in particular that you wanted immediately after delivery, such as having the baby delivered onto your stomach, putting your baby straight to the breast, or being left alone with your partner and child? (yes/no) If yes, what did you want?) Response options were: 'yes' and 'no'.
- Q (PNQ page 24, QD1) *Did you have your chosen birth companion with you during labour?*
Response options were: 'yes for all or most of the time'; 'yes for some of the time' and 'no not at all'.
- Q (ANQ2 page 10, D5a and PNQ page 26, D13) *Wanting and getting one midwife throughout labour* was created from responses to these two questions. As no-one stated that they did not want to be cared for by one midwife throughout labour, there were only four response options: 'wanting and getting'; 'wanting and not getting'; 'neutral and getting' and 'neutral and not getting'.

Perception of control and involvement

- Q (PNQ, page 24, Q D4) *Did you ever feel that you lost control of the way you behaved during labour?* The response options were: 'yes for most of the time'; 'yes for some of the time' and 'no not at all'.

- Q (PNQ, page 24, Q D5) *Did you feel in control during contractions?* The response options were: 'yes for all or most of the time'; 'yes for some of the time' and 'no not at all'.
- Q (PNQ, page 24, Q D6) *Did you make much noise during labour?* The response options were: 'yes a lot'; 'yes a bit'; 'no not much' and 'not sure'.
- Q (PNQ, page 27, Q D19) *How do you feel that most of the non-emergency decisions about your labour were made?* The response options were: 'the staff just got on with it'; 'the staff made decisions but kept me informed'; 'the staff discussed things with me before reaching a decision' and 'the staff gave me their assessment but I was the one in control'. For analysis the first 3 responses were grouped 'staff' and the last one 'I was in control'.
- Q (PNQ, page 27, Q D20) *In general, did you feel in control of what staff were doing to you during labour?* The response options were: yes always; yes, most of the time; only some of the time; no, hardly at all. For analysis the responses were grouped 'always' and 'not always'.

Close contact with the baby

- Q (PNQ, page 29, Q D28) *Did you have a time of close contact with your baby within the first hour after birth?* Response options were: 'yes' and 'no'.

Postnatal measures

These variables are a mixture of those asked at six weeks, three years or both.

Postnatal depression

- Q (FQ, page 23-24, Q E6-E15) *Edinburgh postnatal depression scale (EPDS)*. This 10-item assessment was made six weeks postnatally and again at 3 years. Each of the 10 questions had four response options with a score between 0-3, the scores for which were summed. For analysis, total scores were categorised 'below 12' and '12 and above'; scores over 12 indicative of possible postnatal depression (asked at both six weeks and three years).

Self-esteem

- Q (FQ, page 22, Q E5) *Rosenberg self-esteem scale*. This 10-item assessment was made at 3 years. Each of the 10 questions had four response options with a score between 0-3, the scores for which were summed. For analysis, total scores were categorised 'below 15' and '15 and above'; scores under 15 are indicative of low self-esteem (asked at three years).

Satisfaction and fulfillment

- Q (PNQ, page 36, Q E13) *Satisfaction with the birth experience.* Women were asked at six weeks to give a mark out of ten and for analysis, responses were categorised: 5 and below, 6-8 and 9 and above.
- Q (PNQ, page 36, Q E12) *Was the birth fulfilling?* Response options were: 'yes'; 'no'; 'not sure' and 'don't know what this means' and for analysis, 'yes' was compared with 'any other answer'.

Breastfeeding experiences

- Q (FQ page 6, A13) *Did you stop breastfeeding your baby sooner than you hoped?* Response options were: 'yes' and 'no'.

Maternal and child health

- Q (FQ, page 21, Q E1) *How has your health been since your Millennium baby was born?* Response options were: 'no problems'; 'minor problems'; 'major problems' and 'both minor and major'. For analysis, the first two options were combined and compared with the last two (asked at three years).
- Q (FQ, page 1, Q A8) *Did your baby have any problems at birth?* Response options were: 'yes' and 'no' (asked at three years).
- Q (FQ, page 4, Q A2) *Has your child any health or behaviour problems that have made life difficult?* Response options were: 'yes in the past but not now'; 'yes currently' and 'no not really' (asked at three years).

Postnatal support

- Q (FQ, page 17, Q D2) *Did anyone sit down with you and talk about the birth during your stay in hospital?* Response options were: 'yes'; 'no' and 'not sure'.
- Q (FQ, page 18, Q D6) *Did you feel that you could ask for help if you needed it?* (in section headed 'postnatal care' subheading 'hospital'). Response options were: 'yes always'; 'yes usually' and 'not really' (asked at three years). For analysis, 'not really' was compared with the other two options grouped together.
- Q (FQ page page 18, Q D7) *How would you describe the ward environment? Please circle as many (adjectives) as you wish and add your own?* There were 8 positive adjectives (homely, orderly, calm, safe, supportive, friendly, clean, relaxing) and 8 negative ones (busy, dirty, crowded, frightening, noisy, lonely, chaotic, boring). For analysis, if an adjective was chosen it

was coded 'yes' if not it was coded 'no'. Fifty-three women added their own words (42 of which were negative): these were not included in this analysis.

- Q (FQ, page 4, Q A5) *Does your partner help with childcare?* Response options were: 'yes he does more than me'; 'yes we share the childcare equally'; 'yes but I do most'; 'no he rarely helps me' and 'I don't have a partner' (asked at three years).
- Q (FQ, page 20, Q D18) *Do you feel that you had enough help generally, in the first few weeks after the birth?* Response options were: 'yes'; 'no' and 'I can't remember' and, for analysis, 'I can't remember' was excluded (asked at three years).

Perception of the baby

- Q (FQ, page 5, Q A6) *Did you have difficulties forming a good relationship with your Millennium baby?* Response options were: 'yes'; 'no' and 'not sure' and, for analysis, 'not sure' was excluded (asked at three years).
- Q (FQ, page 5, Q A8) *Description of the baby.* Women were asked at six weeks and three years to circle adjectives which they felt described their baby, from a grid of sixteen (eight positive and eight negative). The ratio of negative words chosen was calculated and categorised: none, 1-30% and more than 30%.
- Q (FQ, page 5, Q A8) *Positive baby adjectives.* The response options were: placid, alert, cuddly, fascinating, talkative, determined, responsive and contented. For each word, if it was chosen it was categorised as 'yes' if not 'no' (three year adjectives used in analysis).
- Q (FQ, page 5, Q A8) *Negative baby adjectives.* The response options were: demanding, unresponsive, draining, stubborn, exhausting, angry, fretful and grizzly. For each word, if it was chosen it was categorised as 'yes' if not 'no' (three year adjectives used in analysis).
- Q (FQ, page 4, Q A4) *Compared with other children, how would you say your child has been to look after?* Response options were: 'much easier'; 'about the same'; 'much more difficult' and 'not sure' (asked at three years).

Events since the birth in 2000

- Q (FQ page 7, Q B1) A variable 'had another baby since 2000' was computed from the information provided about 'other pregnancies and babies' in this section.
- Q (FQ page 3, opening free-text box) *Are there any particularly important things that have happened in your life, since your Millennium baby was born, that you feel we should know about?* Women were asked to describe the event: responses were then coded using Holmes and Rahe (1967) 'Social readjustment rating scale' which ascribes a score to each event, enabling individual scores to be computed.

Appendix 10

Comparisons with women in the Netherlands

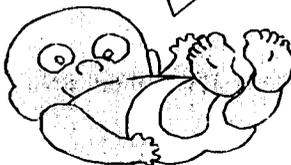
How women perceive their birth experience is also likely to be influenced by the culture in which they give birth and the predominant norms at that time. In order to explore this further the possibility of replicating this research in the Netherlands was explored, where the caesarean birth rate is comparatively low and a culture of normal birth at home is established. I made contact with a research unit in Leiden, which I visited in 2003, in order to discuss how such research might be developed. I gave presentations about my work to student midwives, midwifery lecturers and practitioners and to the researchers at the Unit, and left feeling hopeful that women's experiences of birth could be explored in this context.

There had been no research in the Netherlands exploring how women feel about their birth, so the opportunity to undertake a study replicating some of the questions from 'Greater Expectations?' and from my study was eagerly grasped. In 2004 a questionnaire was developed and sent out to 3208 women who had given birth in 2001. A 44% response rate was achieved and respondents were representative of the general population for mode of birth and parity. In 2005 preliminary analysis was undertaken exploring the main outcome 'look2cat' by mode of birth. It had been hypothesised that women in the Netherlands who had an emergency caesarean birth would be less happy looking back on their experience than women in the UK, where the incidence was much higher and therefore more widely anticipated. The hypothesis was supported, but interestingly women in the Netherlands were less happy about their experience than women in the UK for all modes of birth. For example, in the Netherlands six percent of women had an emergency caesarean, compared with 12% of the UK sample and 48% of these were unhappy looking back, compared with 33% of the UK sample. Of the 76% of women who had a spontaneous vaginal birth in the Netherlands, 68% of the UK sample, 11% were unhappy looking back compared with six percent of the UK sample. Women in the Netherlands had similar mean EPDS scores but lower self-esteem, as measured by the Rosenberg scale, than women in the UK sample. It is unclear why this should be the case and further analysis is currently being undertaken.

Three year follow up questionnaire

Confidential

Hello
It's me again!



Mother & Infant Research Unit
University of Leeds
22 Hyde Terrace
Leeds LS2 9LN

Hello again!

We hope that you can find the time to complete this follow up questionnaire. We have tried to design it in a similar way to the previous questionnaires that you have completed for us.

For most of the questions you just need to circle the number next to the answer you want to give, e.g. if the options are

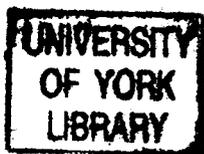
yes 1
no 2

and you want to answer 'yes' then circle ①

You are always welcome to write more about any of the questions. We are interested in whatever you would like to say. We hope you find the questionnaire easy to use.

If you find that some of the questions do not fit your circumstances, we apologise and hope that you will find a way to tell us.

Thank you.



Please fill in:

Today's date...../...../2003

Date your baby was born...../...../2000

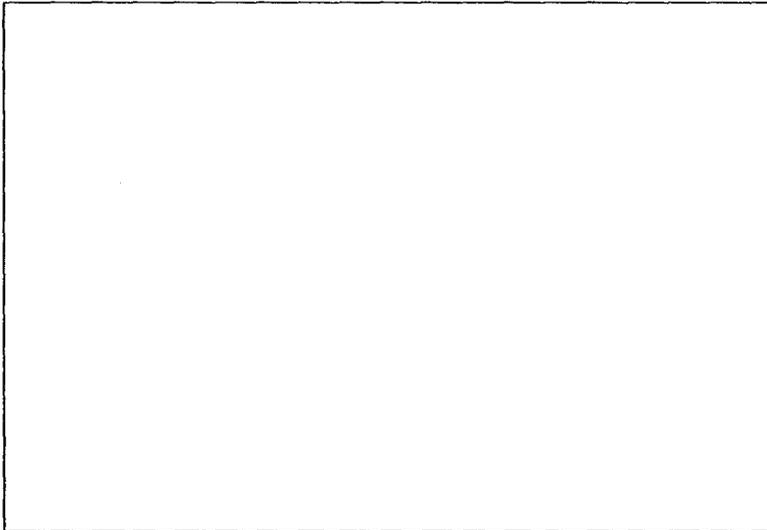
What is his / her name?

.....

Important events since 2000

Are there any particularly important things that have happened in your life, since your Millennium baby was born, that you feel we should know about? (e.g. moving house, getting married, the death of someone close to you, becoming unemployed).

If so, please tell us (we will ask you about further pregnancies later in the questionnaire).



Section A: Your Millennium baby

These questions are about the baby you had in 2000.

A1. How old is your Millennium baby now?

years months

A2. Has your child had any health or behaviour problems that have made life difficult?

yes in the past, but not now	1
yes, currently	2
no, not really	3
if yes, please say what.....	
.....	

A3. When did your child start to sleep through the night?

less than 6 months old	1
between 6 months and 1 year	2
between 1 year and 2 years	3
between 2 years and 3 years	4
s/he still does not sleep through	5
not sure	6

A4. Compared with other children, how would you say your child has been to look after?

much easier	1
about the same	2
much more difficult	3
not sure	4

A5. Does your partner help with childcare?

yes, he does more than me	1
yes, we share the childcare equally	2
yes, but I do most	3
no, he rarely helps me	4
I don't have a partner	5

A6. Did you have any difficulties forming a good relationship with your Millennium baby?

yes 1 no 2 not sure 3

A7. If yes, please tell us why you think this was.

.....

A8. Please circle **all** the words that describe your child now.

placid	alert	demanding	unresponsive
responsive	stubborn	cuddly	draining
grizzly	fascinating	exhausting	determined
talkative	angry	fretful	contented

Feeding your Millennium baby

A9. How would you describe your child's feeding behaviour whilst on milk feeds only? (breast or bottle)

usually fed well	1
sometimes difficult to feed	2
usually difficult to feed	3
not sure	4

A10. Had you breastfed a previous baby?

yes 1 no 2 N/A 3

A11. Did you want to breastfeed this baby?

yes 1 no 2 not sure 3

A12. Did you breastfeed your Millennium baby at all?

yes 1 no 2

**If you did not breastfeed your Millennium baby,
please go to question A16.**

If yes:

A13. Did you stop breastfeeding sooner than you had hoped?

yes 1 no 2

A14. When did you stop?.....

A15. Why did you stop?.....

.....

A16. Is there anything else you would like to tell us about
your Millennium baby, about feeding or otherwise?

Section B: Other pregnancies and babies

Other births

- B1. It would be helpful to have an overall summary of your pregnancy and birth experiences.
Please write the year in the top box (e.g. 98).
Then tick the box(es) that describes what happened.

	1 st pregnancy	2 nd pregnancy	3 rd pregnancy	4 th pregnancy	5 th pregnancy	6 th pregnancy	7 th pregnancy
Please write year →							
pregnancy loss (wanted pregnancy)							
pregnancy loss (unwanted pregnancy)							
planned caesarean							
unplanned caesarean							
vacuum (ventouse)							
forceps							
normal (vaginal) birth							
a still birth or child who died							
twins or more							
other							

B2. Have you become pregnant again since 2000?

yes 1 no 2

If no, please go to Question B6.

If yes:

B3. How did you feel on finding you were pregnant again?

.....
.....

B4. Are you currently pregnant?

yes 1 no 2

B5. If yes, how many months?

B6. If you have not become pregnant again is this because:

- we've decided not to have any more children 1
- we've not made any decision about what to do 2
- we've decided to have another baby, but not yet 3
- we are currently trying for another baby 4
- I do not have a partner 5
- not applicable 6
- other reason, please tell us 7

.....
.....

B7. If you have decided not to have any more children, why is this?

Section C: The Millennium birth

C1. How clear are your memories of the birth in 2000?

- | | |
|-------------------------------------|---|
| very clear, as if it were yesterday | 1 |
| I can remember most things | 2 |
| only a few things are clear | 3 |
| I can't remember anything | 4 |

C2. How often do you think about the 2000 birth?

- | | |
|--------------------------|---|
| it rarely enters my head | 1 |
| occasionally | 2 |
| quite often | 3 |
| most days | 4 |
| constantly | 5 |

If you had a planned caesarean, please go to C18, page 12

C3. Had you started having contractions before you came into hospital?

- | | | | | | |
|-----|---|----|---|----------|---|
| yes | 1 | no | 2 | not sure | 3 |
|-----|---|----|---|----------|---|

C4. If yes, how long did you have contractions for at home, before you came into hospital?

- | | |
|------------------|---|
| about.....hours | 1 |
| I can't remember | 2 |

C5. Did you have an epidural in labour?

- | | | | |
|-----|---|----|---|
| yes | 1 | no | 2 |
|-----|---|----|---|

C6. How do feel now about having had, or not having had, an epidural?

- | | |
|------------------------------------------|---|
| I am pleased about it | 1 |
| I have mixed feelings | 2 |
| I am quite unhappy about it | 3 |
| I have no particular feelings either way | 4 |
| other (please say what) | 5 |

.....

If you **did not** have an epidural, please go to C12, page 11

C7. Can you remember how many centimetres dilated your cervix was when the epidural was put in?

yes 1 no 2

C8. If yes, please say:.....cms

C9. How long had you been in hospital before you had the epidural?

about.....hours 1
I can't remember 2

C10. Was there a particular reason, in addition to pain relief, for needing an epidural? (circle **all** that apply).

my cervix was dilating slowly 1
my blood pressure was high 2
I had always intended having one 3
I wanted to push too soon 4
I needed a forceps/vacuum delivery 5
I needed a caesarean section 6
no other reason 7
other..... 8

C11. Is there anything else you want to say about having had an epidural?

C12. What kind of birth did you have?

- | | | |
|---------------------------------|---|----------------------|
| planned caesarean (elective) | 1 | go to C18, page 12 ➔ |
| unplanned caesarean (emergency) | 2 | go to C18, page 12 ➔ |
| vacuum (ventouse) | 3 | go to C13, page 11 |
| forceps | 4 | go to C13, page 11 |
| normal (vaginal) | 5 | go to C29, page 14 ➔ |

Forcep or ventouse (vacuum) delivery

C13. How did you feel when the decision was made to deliver the baby with forceps / ventouse?

C14. Did your partner stay with you while you were being prepared for the birth?

yes 1 no 2

C15. Did the staff explain what they were doing while they were preparing you for the birth?

no, hardly at all 1
 yes, sometimes 2
 yes, throughout 3

C16. Did the midwife who had been caring for you in labour stay with you?

yes 1 no 2 not sure 3

C17. Sometimes, when the doctor is not sure that the baby can be delivered using forceps / ventouse, the woman is taken into theatre, just in case a caesarean section is needed. Did this happen to you?

yes 1 no 2 not sure 3

Now please go to C29, page 14

Caesarean Section

C18. When was the decision made to have a caesarean?

- | | |
|--------------------------------|---|
| during pregnancy atweeks | 1 |
| during labour after.....hours | 2 |
| other..... | 3 |

C19. How did you feel when the decision was made?

C20. Did your partner stay with you while you were being prepared for theatre?

- | | | | | | |
|-----|---|----|---|-----|---|
| yes | 1 | no | 2 | n/a | 3 |
|-----|---|----|---|-----|---|

C21. How would you describe the staff who prepared you for theatre?

- | | |
|---------------|---|
| quite relaxed | 1 |
| rather tense | 2 |
| don't know | 3 |
| other..... | 4 |

C22. Did the staff explain what they were doing while they were preparing you for theatre?

- | | |
|-------------------|---|
| no, hardly at all | 1 |
| yes, sometimes | 2 |
| yes, throughout | 3 |

Everyone – looking back

C29. If you can remember, please circle whichever of the words below describe any of the staff who you saw during the birth (circle as many as you wish). Please tell us about the negative as well as the positive things – even if it was only one member of staff.

rushed	humorous	insensitive
unhelpful	sensitive	considerate
supportive	off-hand	polite
rude	warm	inconsiderate
informative	bossy	condescending

C30. How do you feel when you look back on your experience of birth in 2000?

I am very happy with the way things went	1
I am quite happy with the way things went	2
I have no particular feelings	3
I am quite unhappy with the way things went	4
I am very unhappy with the way things went	5

C31. How do you think your partner felt about the birth in 2000?

- | | |
|----------------------------------------|---|
| very happy with the way things went | 1 |
| quite happy with the way things went | 2 |
| no particular feelings | 3 |
| quite unhappy with the way things went | 4 |
| very unhappy with the way things went | 5 |
| I don't know | 6 |
| I didn't have a partner | 7 |

C32. Did you feel that your baby was in danger at anytime during the birth ?

- yes 1 no 2

C33. Did you feel that your life was in danger at any time during the birth?

- yes 1 no 2

C34. Can you think of anything that any of the staff did or said during the time around the birth, that helped you feel safe?

C35. Can you think of anything that any of the staff did or said during the time around the birth, that caused you concern?

C36. If you could change one aspect of your experience of the birth in 2000, what would it be?

C37. How did your Millennium birth experience influence how you felt about having more children?

- I decided definitely not to have anymore children 1
- it made me less keen 2
- it did not make any difference 3
- it made me more keen 4
- I looked forward to the next birth 5
- not applicable 6
- other, please say.....

.....

.....

C38. If you were to have any more children, what would you ideally aim to do?

- I would prefer to have a normal birth in hospital 1
- I would prefer to have a planned caesarean 2
- I would prefer to have my next baby at home 3
- I am not sure 4

Section D: Postnatal care

The following questions are about your postnatal care following the birth of your Millennium baby.

If you had a home birth, please go to D15 page 20

In hospital

D1. During your hospital stay, were you in;

- | | |
|------------------------------|---|
| a single room | 1 |
| a bay of 4-6 beds | 2 |
| a room with more than 6 beds | 3 |

D2. Did anyone sit down with you to talk about the birth during your stay in hospital?

- yes 1 no 2 not sure 3

If no, please go to D5

D3. If yes, who was this?

- | | |
|-------------------|---|
| midwife | 1 |
| student midwife | 2 |
| doctor | 3 |
| not sure | 4 |
| other | 5 |
| please state..... | |

D4. If yes, had this person been present at the birth?

- yes 1 no 2 not sure 3

D5. Were you asked if you needed any help with baby care?

yes, often	1
occasionally	2
no, never	3

D6. Did you feel that you could ask for help if you needed it?

yes, always	1
yes, usually	2
not really	3

D7. How would you describe the ward environment?
Please circle as many as you wish and add your own!.

busy	calm	noisy	clean
dirty	crowded	supportive	relaxing
homely	frightening	lonely	chaotic
orderly	safe	friendly	boring

.....

D8. How long did you stay in hospital?

.....

D9. Do you feel you had a choice about how long you stayed in hospital?

yes	1
only partly	2
no	3
I can't remember	4

D10. How would you describe the length of your hospital stay?

- too short 1
- about right 2
- too long 3

D11. Have you ever stayed in hospital other than for the birth of your children?

- yes 1 no 2

D12. If yes, when was this **and** what was the reason?

when?

why?

.....
.....
.....

D13. Is there anything else you would like to say about your stay in hospital following the birth of your Millennium baby?

At home

D14. How did you feel when you got home from hospital?

D15. Did you discuss how the birth had gone with the community midwife?

yes 1 no 2 I can't remember 3

D16. If yes, was this helpful?

yes 1 no 2 not sure 3

D17. Who was around to help you during the first week
Please circle **all** that apply.

- partner 1
- mum 2
- sister 3
- friends 4
- no one 5
- other 6
- please say who

D18. Do you feel that you had enough help generally, in the first few weeks after the birth?

yes 1 no 2 I can't remember 3

Section E: Your health

E1. How has your health been since your Millennium baby was born?

- no problems 1
- minor problems 2
- major problems 3
- both minor and major 4

E2. If you have had any health problems since the birth of your Millennium baby, whether major or minor, please tell us about the problem (e.g. backache, bowel, bladder, bleeding, sexual difficulties, depression, pain, infection, headaches) **and** when the problem occurred.

problem	when?
.....
.....
.....

E3. How do you feel about the way your body looked before you had children?

- I was happy with the way I looked 1
- no particular feelings 2
- I was unhappy with the way I looked 3

E4. How do you feel about how your body looks now?

- I am happy with the way I look 1
- no particular feelings 2
- I am unhappy with the way I look 3

- E5. Circle the appropriate number for each statement depending on whether you strongly agree, agree, disagree or strongly disagree with it.

		Strongly agree	Agree	Disagree	Strongly disagree
1	On the whole, I am satisfied with myself	1	2	3	4
2	At times I think I am no good at all	1	2	3	4
3	I feel that I have a number of good qualities	1	2	3	4
4	I am able to do things as well as most other people	1	2	3	4
5	I feel I do not have too much to be proud of	1	2	3	4
6	I certainly feel useless at times	1	2	3	4
7	I feel I am a person of worth, at least on an equal plane with others	1	2	3	4
8	I wish I could have more respect for myself	1	2	3	4
9	All in all, I am inclined to feel that I am a failure	1	2	3	4
10	I take a positive attitude toward myself	1	2	3	4

E6. During the last week I have been able to laugh and see the funny side of things:

as much as I always could	1
not quite so much now	2
definitely not so much now	3
not at all	4

E7. During the last week I have looked forward with enjoyment to things:

as much as I ever did	1
rather less than I used to	2
definitely less than I used to	3
hardly at all	4

E8. During the last week I have blamed myself unnecessarily when things went wrong:

yes, most of the time	1
yes, some of the time	2
not very often	3
no, never	4

E9. During the last week I have been anxious or worried for no good reason:

no, not at all	1
hardly ever	2
yes, sometimes	3
yes, very often	4

E10. During the last week I have felt scared or panicky for no very good reason:

yes, quite a lot	1
yes, sometimes	2
no, not much	3
no, not at all	4

E11. During the last week things have been getting on top of me:

- | | |
|----------------------------------------------------------|---|
| yes, most of the time I haven't been able to cope at all | 1 |
| yes, sometimes I haven't been coping as well as usual | 2 |
| no, most of the time I have coped quite well | 3 |
| no, I have been coping as well as ever | 4 |

E12. During the last week I have been so unhappy that I have had difficulty sleeping:

- | | |
|-----------------------|---|
| yes, most of the time | 1 |
| yes, sometimes | 2 |
| not very often | 3 |
| no, never | 4 |

E13. During the last week I have felt sad or miserable:

- | | |
|-----------------------|---|
| yes, most of the time | 1 |
| yes, quite often | 2 |
| not very often | 3 |
| no, not at all | 4 |

E14. During the last week I have been so unhappy that I have been crying:

- | | |
|-----------------------|---|
| yes, most of the time | 1 |
| yes, quite often | 2 |
| only occasionally | 3 |
| no, never | 4 |

E15. During the last week the thought of harming myself has occurred to me:

- | | |
|------------------|---|
| yes, quite often | 1 |
| sometimes | 2 |
| hardly ever | 3 |
| never | 4 |

The birth experiences of close relatives and friends

E16. Do you know how were you born?

- | | |
|---------------------|---|
| planned caesarean | 1 |
| unplanned caesarean | 2 |
| forceps/ventouse | 3 |
| normal birth | 4 |
| not sure | 5 |

E17. Did your mother describe the details of her birth(s) to you before you had children?

- | | | | | | |
|-----|---|----|---|----------|---|
| yes | 1 | no | 2 | not sure | 3 |
|-----|---|----|---|----------|---|

E18. If so, how did you feel?

- | | |
|-------------------------------------------------------------------|---|
| I thought I would probably have a similar experience | 1 |
| I didn't really think about it | 2 |
| it made no difference to how I felt about what might happen to me | 3 |

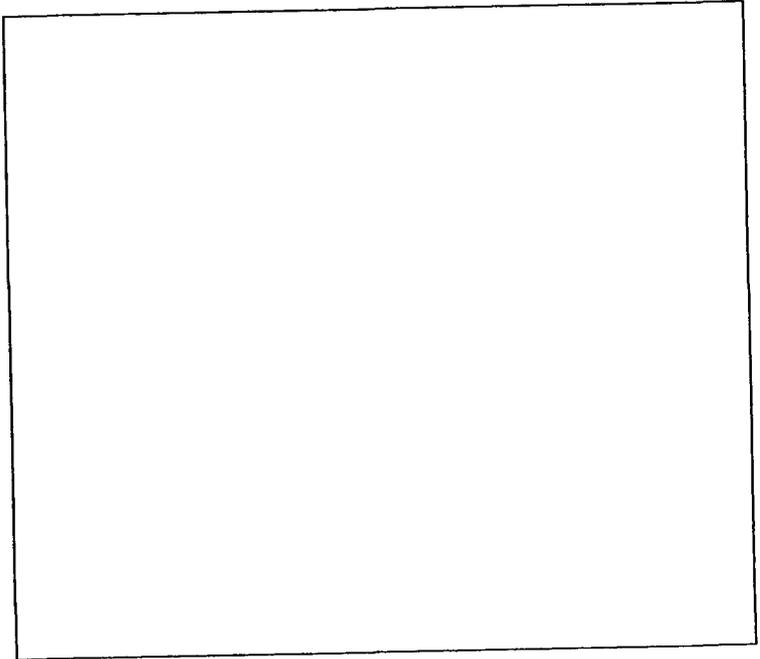
E19. Did you have any close relatives and/or friends who had babies around the same time as you?

- | | | | |
|-----|---|----|---|
| yes | 1 | no | 2 |
|-----|---|----|---|

E20. If yes, how did their experiences affect you?

And finally...

- E21. If there are other important issues about the birth of your Millennium baby that you wish to tell us, we would be interested to hear about them.

A large, empty rectangular box with a thin black border, intended for the respondent to write their answers to question E21.

**If you have any queries or concerns about this
questionnaire, please ring us**

0113 343 1569

or

0113 343 6888

Thank you for completing the questionnaire, your continued support to this study is really appreciated.

Later in the year I would like to talk in person to some women in their home about their experiences. I would be very grateful if you could indicate if you would be happy for me to contact you again to arrange this.

If you are selected, I will write to you in a few months with more information.

yes, I would be quite happy 1

no, I would rather not be interviewed 2

Everyone – please confirm your name and address

Please write clearly in **BLOCK CAPITALS**

Name.....

Address.....

.....

Post code

Phone number.....

Thanks again!

This section will be removed from the questionnaire