Improving emotional care for childbearing women: An intervention study

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Forward
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Statement of originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Jennifer Gamble
Synopsis

Childbirth can be associated with short and long-term psychological morbidity including depression, anxiety and trauma symptoms. Some previous studies have used psychological interventions to reduce postpartum distress but have primarily focussed on attempting to relieve symptoms of depression with little recognition of trauma symptoms. Furthermore, the intervention used in these studies has generally been poorly documented.

The first aim of the present study was to develop a counselling framework, suitable for use by midwives, to address psychological trauma following childbirth. Multiple methods were used to develop the intervention including focus groups with women and midwives. Both the women and midwives gave unequivocal support for postpartum debriefing. Themes that emerged from the focus groups with women included the need for opportunities to talk about their birth experience, an explanation of events, an exploration of alternative courses of action that may have resulted in a different birth experience, talking about their feelings such as loss, fear, anger and self-blame, discussing social support, and discussing possible future childbearing. There was a high level of agreement between the women’s and midwives’ views. These themes were synthesized with contemporary literature describing counselling interventions to assist in reconciling a distressing birth experience and a model for understanding women’s distressing birth experiences to develop a counselling framework.

The counselling intervention was then tested using a randomised controlled study involving 400 women recruited from antenatal clinics of three public hospitals. When interviewed within seventy-two hours of birth, 103 women reported a distressing birth experience and were then randomised into either the treatment or control group. Women in the intervention group had the opportunity to debrief at the initial postpartum interview (< 72 hours postpartum) and at four to six weeks postpartum. The prevalence of posttraumatic stress disorder was quite high; 9.6% of participants meeting the
diagnostic criteria for acute PTSD at four to six weeks postpartum. Fewer participants (3.5%) met the diagnostic criteria for chronic PTSD at three months postpartum. As with previous research relating to childbearing women, few demographic factors or antenatal psychological factors were associated with the development of a PTSD symptom profile following childbirth. The development of PTSD symptom profile was strongly associated with obstetric intervention and a perception of poor care in labour. This finding is also consistent with previous research.

Emotional distress was reduced for women in the intervention group in relation to the number of PTSD symptoms \( t(101) = 2.144, p = .035 \), depression \( \chi^2 (1) = 9.188, p = .002 \), stress \( \chi^2 (1) = 4.478, p = .029 \) and feelings of self-blame \( t(101) = -12.424, p < .001 \). Confidence about a future pregnancy was higher for these women \( t(101) = -9.096, p < .001 \). Although there was not a statistically significant difference in the number of women with a PTSD symptom profile at three months postpartum, fewer women in the intervention group (n=3) than in the control group (n=9) met PTSD criteria. Likewise, there were fewer women in the intervention group (n=1) with anxiety levels above mild than in the control group (n=6).

Importantly, this study found that offering women who have had a traumatic birth the opportunity for counselling using the framework documented in this dissertation was not harmful. This finding is in contrast to previous findings of other studies. The intervention was well received by participants. All the women in the intervention group found the counselling sessions helped them come to terms with their birth experience.

Maternity service providers need to be cognizant of the prevalence of this debilitating condition and be able to identify women at risk for early intervention and referral to a mental health practitioner if appropriate. This research offers further support for the compelling need to implement changes to the provision of maternity services that reduce rates of obstetric
intervention and humanise service delivery as a means of primary prevention of birth-related PTSD.
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CHAPTER 1

Introduction
The aim of this research was to develop and test a counselling intervention with women who report a distressing or traumatic birth experience. The intent of the counselling intervention was to prevent or reduce postpartum emotional distress, specifically trauma symptoms and posttraumatic stress disorder (PTSD) symptom profile.

For many women childbirth can bring joy and fulfilment, however, some women experience negative feelings of fear, anxiety, failure and anger during labour and around the time of the birth. Short and long-term psychological morbidity may include depression, anxiety and trauma symptoms (Beck, 1998; Creedy, Shochet & Horsfall, 2000; Horan-Smith & Gullone, 1998). Although the incidence of postnatal ‘blues’ and postpartum depression following childbirth has been extensively documented, it is now acknowledged that some women experience psychological trauma and that this may lead to the development of PTSD. Evidence on childbirth-related PTSD suggests that the medicalisation of birth with the concomitant focus on procedures and technology rather than the woman and her family are the main contributing factors (Creedy et al., 2000; Page, 2001). In Australia, and particularly Queensland, the technological approach to birth predominates. There are only two small birth centres in the State, homebirth rates are low (<1%) and medical intervention rates are increasing (Queensland Health Department, 2001). Queensland now has the highest caesarean section rate in Australia and alternatives to the medical model of maternity care are scarce.

The symptoms of traumatisation are distressing and debilitating at a time when a woman has to manage the extra demands of caring for her baby. In a related field, studies on postpartum emotional distress found that the consequences can be far reaching. Children of women who suffer mood disorders can have long-term disturbances to their emotional, behavioural
and cognitive development (Field, 1992; Murray, 1992; Sinclair & Murray, 1998). For example, two-month old infants of depressed mothers received less appropriate and responsive care and more negative and rejecting care than those of non-depressed mothers (Campbell, Cohn, Flanagan, Popper & Meyers, 1992). Mood disorders may also result in marital problems, which, if unresolved, may lead to separation and divorce (Boyce & Stubbs, 1994; Holden, 1991). Importantly, acute PTSD and postnatal depression can progress to become chronic conditions that are disabling and difficult to treat successfully (Brown & Lumley, 1998; Friedman, 2000; Rothbaum & Foa, 1993).

The developing awareness of psychological trauma following childbirth and the impact on the lives of women raises the question of how best to relieve this distress. There is a dearth of available literature on the prevention or treatment of PTSD following childbirth. To date, only two studies have been conducted which measured the impact of a psychological intervention on trauma symptoms (Hagan et al., 1996; Ryding, Wijma & Wijma, 1998b).

This thesis will begin with a discussion of PTSD following childbirth and factors associated with the development of trauma symptoms. Psychological strategies used to prevent or treat PTSD from non-childbirth sources of trauma will be described and analysed to provide the context for examining strategies for use with childbearing women. In light of the link between support, communication and respect during labour and the early postpartum period and the development of trauma symptoms, the role of midwives in providing emotional care for childbearing women will be discussed.

Psychological debriefing has been used and studied extensively in the prevention of PTSD with people suffering other types of traumatic events such as combat veterans or road traffic accident victims. Debriefing has also been used in a small number of studies with childbearing women. In addition, two other studies used a psychological intervention, but not debriefing, to address postpartum trauma symptoms. These studies will be reviewed in
Chapter 2 and the need to develop a counselling framework/strategy aimed at ameliorating trauma symptoms in postpartum women will be established. The rationale, purposes and hypothesis for the major study are outlined.

Chapter 3 describes the development of a counselling framework aimed at reducing trauma symptoms and a PTSD symptom profile in childbearing women. To enhance the validity of the counselling framework, several strategies were used. The counselling framework was informed by a model for understanding women’s traumatic birth experiences, a review of the literature that describes postpartum counselling strategies, and focus groups with women and midwives on birthing trauma and ways to address it.

The methodological considerations for the major study are outlined in Chapter 4. The timeframe and criteria for the identification of acute and chronic trauma responses and a PTSD symptom profile adhered to guidelines established in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) (American Psychiatric Association, 1994). The main study included four phases that occurred during the last trimester of pregnancy, within 72 hours of birth, four to six weeks postpartum, and three months postpartum.

Chapter 5 presents the initial analysis of the results. The descriptive data for the sample outlining the demographic characteristics and obstetric variables establishes the representative nature of the sample. The reliability and validity of the instruments used in the study are discussed. The mean antenatal and postnatal scores for the variables of depression, anxiety, stress and social support are provided. The incidence of depression, anxiety, and stress is shown and compared to the incidence of these conditions in similar populations. The homogeneity of the intervention and control groups is demonstrated. Finally, the incidence of acute and chronic PTSD and the case studies of the 12 women meeting the diagnostic criteria for PTSD at three months are documented.
Chapter 6 presents a further analysis of the data to determine the factors associated with an acute PTSD symptom profile and a chronic PTSD symptom profile following childbirth. Antenatal, intrapartum and postpartum factors are examined for their association with PTSD criteria at four to six weeks and three months postpartum. The effect of the intervention on the main outcomes of symptoms of trauma and an acute and chronic PTSD symptom profile is presented. The effect of the intervention on other outcomes including depression, anxiety, stress, self-blame, and confidence about a future pregnancy is also provided. Participants’ views about the value and timing of the intervention are detailed.

Chapter 7 discusses the research results within the context of the contemporary literature. Comparisons are made with other studies in relation to the incidence of trauma symptoms following childbirth, obstetric interventions, and satisfaction with care and women’s feelings during labour. The similarities and differences between the present study and previous research are analysed. The effect of the intervention on the range of outcomes studied is discussed. The limitations of this research are described and future research directions are suggested.

The thesis concludes with a discussion in Chapter 8 of the emerging issues from this investigation. In particular, there is significant support for the findings of previous research indicating a link between obstetric and interpersonal factors and the development of an acute and chronic PTSD symptom profile. In contrast to some other studies, the use of a brief psychological strategy to reduce emotional distress in this study, using the approach described in this dissertation, was helpful in reducing symptoms specific to psychological trauma. The unique contribution of this thesis is the development of a counselling intervention and its use with childbearing women to ameliorate trauma symptoms.
Childbirth and psychological trauma

Conventionally defined, trauma responses are usually associated with survivors of disasters, childhood abuse and neglect and combat. However, there is a growing body of evidence indicating that trauma symptoms and PTSD may develop as a consequence of childbirth experiences (Ayers & Pickering, 2001; Creedy et al., 2000; Wijma, Soderquist & Wijma, 1997) and some gynaecological procedures (Menage, 1993). According to the American Psychiatric Association (APA) (1994), a traumatic event has a number of characteristics. It happens suddenly and unexpectedly, it disrupts one’s sense of control, beliefs, values and one’s basic assumptions about the world and others (American Psychiatric Association, 1994). The stressor is usually experienced with intensity, terror and helplessness. There may be a perception of life-threatening danger, with physical and emotional symptoms. In the immediate period after the event, the person may experience numbness, emotional release, express relief, anger, loss and concern, hyperarousal and intrusion of trauma stimuli. As a result of the perceived trauma, women may sense a loss of control over events, feel unsupported and become distressed. A traumatic birthing experience can overwhelm women’s normal ability to cope with stress and carries the potential risk of intensifying into PTSD. After the event trauma symptoms may include flashbacks, nightmares, numbness, irritability, sleep disturbances, anger, being easily startled, hyper-vigilance (especially regarding the baby), avoidance of reminders of the traumatic event, panic attacks, and physiological responses such as sweating and palpitations when exposed to things that remind the woman of the traumatic birth (Horowitz, 1999a). Josephs (1996) also observed that self-blame was a common reaction to trauma amongst women accessing an obstetric/gynaecological psychological consultation clinic. The diagnostic criteria for PTSD are provided in Table 1.
Table 1: Diagnostic Criteria for Posttraumatic Stress Disorder

A. The person has been exposed to a traumatic event in which both of the following were present:
   (1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or threat to the physical integrity of self or others
   (2) the person’s response involved intense fear, helplessness, or horror

B. The traumatic event is persistently re-experienced in one (or more) of the following ways:
   (1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions
   (2) recurrent distressing dreams of the event
   (3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on wakening or when intoxicated
   (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
   (5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three or more of the following:
   (1) efforts to avoid thoughts, feelings or conversations associated with the trauma
   (2) efforts to avoid activities, places, or people that arouse recollections of the trauma
   (3) inability to recall an important aspect of the trauma
   (4) markedly diminished interest or participation in significant activities
   (5) feeling of detachment or estrangement from others
   (6) restricted range of affect (e.g., unable to have loving feelings)
   (7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal lifespan)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
   (1) difficulty falling or staying asleep
   (2) irritability or outbursts of anger
   (3) difficulty concentrating
   (4) hypervigilance
   (5) exaggerated startle response

E. Duration of the disturbance is more than one month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

(American Psychiatric Association, 1994, p 428)

Reported incidences of PTSD vary with reported rates of 7-9% overall, however, there is a significant gender differential, with 10.4% of women reporting a lifetime prevalence of PTSD compared with 5% of men (Seedat & Stein, 2000). In comparison to these North American figures, a survey of 10,000 Australians selected from a random sample of households, identified a lifetime prevalence of PTSD for women to be 4.2% (Australian Institute of Health & Welfare, 1998). A recent survey by Creedy et al. (2000) found that one in three Australian respondents (167 out of 499) reported a stressful
birthing event and the presence of three or more trauma symptoms four to six weeks postpartum. Nearly 6% (n = 28) of women met the APA (1994) criteria for acute PTSD.

Factors associated with the development of trauma symptoms

To date, few factors contributing to the development of a PTSD symptom profile following childbirth have been clearly identified. Amongst these are the level of obstetric intervention, particularly emergency caesarean section and instrumental vaginal delivery, as a strong predictor of acute trauma symptoms (Creedy et al., 2000; Menage, 1993; Ryding, Wijma & Wijma, 1997; Ryding, Wijma & Wijma, 1998d). Likewise, a perception of inadequate intrapartum care is also associated with postpartum trauma symptoms. Issues of powerlessness, lack of information, unsympathetic attitude by health professionals and lack of informed consent have been linked with the development of trauma symptoms (Menage, 1993; Wijma et al., 1997). Creedy et al. (2000) found that women who received both a high level of obstetric intervention and perceived their intrapartum care as poor were more likely to develop trauma symptoms than women who received a high level of obstetric intervention or women who perceived their care to be inadequate.

Certain pre-existing emotional states have been linked to the development of PTSD symptoms. Wijma et al. (1997) found an association between posttraumatic stress symptoms and a previous psychiatric history. In a later study, Wijma, Ryding & Wijma (2002) found that fear of childbirth was a predictor of posttraumatic stress symptoms following an emergency caesarean section, hypothesizing that fear of childbirth would imply a negative set of expectancies, which would lower women’s resilience to the possible distress of emergency caesarean section. However, Creedy et al. (2000) did not find a statistically significant association between the development of an acute PTSD profile and antenatal variables of preparation for childbirth, anticipatory anxiety or state anxiety.
There is contradictory evidence in relation to demographic factors associated with the development of PTSD symptoms following childbirth. Wijma et al. (1997) found an association between nulliparity and the development of PTSD. Creedy et al. (2000), however, did not find an association between demographic factors and an acute PTSD symptom profile.

In a review of the issues surrounding the epidemiology of PTSD in adult survivors of traumatic events (not childbirth specific), Lee and Young (2001) found that pre-trauma vulnerability factors, event characteristics and the post-trauma environment were all implicated in the development of PTSD. Factors that have both consistency and the greatest strength of prediction include trauma severity (including duration and intensity), lack of social support post-trauma and life stress post-trauma (Lee & Young, 2001; Yehuda & McFarlane, 1999). Pre-trauma factors, such as previous psychiatric history, abuse in childhood, family psychiatric history, low socio-economic status, lack of education, low intelligence, previous trauma (other than childhood abuse) and other adverse childhood factors consistently predicted PTSD but the effect size was small (Lee & Young, 2001).

Women are at greater risk for developing PTSD and although the reason for this increased susceptibility remains unknown, it may be partially attributable to the higher rates of sexual trauma in women (Seedat & Stein, 2001). Case study reports indicate that previous sexual abuse is a factor in the development of PTSD following traumatic obstetric or gynaecological events (Josephs, 1996).

Furthermore, the risk of developing trauma has been shown to be dependent on the type of trauma, with a higher risk after assaultive violence (e.g. rape, physical assault, combat) than other forms of trauma (Seedat & Stein, 2001). Interpersonal violence is particularly damaging when perpetrated by those trusted to care (Horowitz, 1999a). The victim’s world-view is shaken when the expected constancy, fidelity and support are replaced with the perceived
malevolence of harmful actions. Crompton (1996) suggested that trauma of human origin has more psychologically potent effects than natural disasters.

**Comorbidity with other psychological disorders**

There is significant comorbidity of PTSD with other psychiatric disorders. It is estimated that up to 80% of patients with PTSD have a comorbid psychological disorder (Lange, Lange & Cabaltica, 2000). These include substance abuse, depression, generalised anxiety, phobic, panic, somatization, psychotic and personality disorders (Adshead, 2000; Deering, Glover, Ready, Eddleman & Alarcon, 1996). Deering et al. (1996) argued that the comorbidity profiles differ according to the type of trauma experienced and the population studied. Additionally, the evidence suggests that the associated psychiatric disorders are not truly comorbid, but are interwoven with PTSD. Depression is the most common disorder associated with PTSD from non-combat sources of trauma and it is unusual for PTSD to occur in isolation from other affective disorders (Adshead, 2000; Deering et al., 1996).

In women, depression and anxiety are commonly associated with PTSD (Seedat & Stein, 2000). Seedat and Stein (2000) report that one-half of women and one quarter of men with post-disaster PTSD also met the criteria for other post-disaster psychiatric diagnoses, particularly major depression (Seedat & Stein, 2000). This is consistent with case study reports by Ballard, Stanley & Brockington (1995) regarding significant co-morbidity of depression and post-traumatic stress in women following emotionally traumatic childbirth. High rates of secondary anxiety and substance abuse disorders are also reported (Seedat & Stein, 2001).

**Features that characterise PTSD in women**

Women are more likely than men to develop PTSD during their lifetime. They are also more likely to develop depression as a comorbid or concurrent disorder and have a different pattern of symptoms. Studies have shown that women with PTSD from assaultive violence have a higher burden of
symptoms than men (Seedat & Stein, 2000) and that symptoms persist longer. Furthermore, women retraumatised following sexual abuse as a child are more likely to be depressed, to have dissociative symptoms and attempt suicide (Seedat & Stein, 2000). In one study of assaultive violence, women were more likely to develop avoidance and numbing symptoms than men (Breslau, Chilcoat, Kessler, Peterson & Lucia, 1999). Creedy et al. (2000) found that women presenting with an acute PTSD symptom profile following childbirth had a greater burden of re-experiencing symptoms, particularly intrusive thoughts, becoming emotionally upset, and that arousal symptoms had a less prominent role.

Adshead (2000) argues that the nature of the trauma may affect the psychological response to the event. It is suggested that PTSD in some people may be a failure to process the experience of fear while for others sadness, guilt and shame are the main affective responses. Women may be more likely to have shame-based reactions through experiencing higher levels of interpersonal violence by someone they know perpetrating rape, childhood sexual abuse, and domestic violence (Seedat & Stein, 2000). Earlier studies support this idea of different responses depending at least partly on the nature of the trauma. For instance, traumatic events involving human intention may be more likely to result in depressive reactions (Steketee & Foa, 1987). For such individuals, it seems likely that the nature of the traumatic experience affects their sense of self. It alters the way they think about themselves, and about others in relationship to them. These affective reactions have implications for treatment. People with fear-based reactions need therapies that address fear and anxiety whereas shame-based reactions will need cognitive representations of the self and relationships with others. However, fear- and shame-based reactions can coexist (Adshead, 2000).
Psychological interventions for PTSD

There has been very limited work on the prevention or treatment of PTSD following childbirth, primarily because psychological trauma related to childbirth has only been clearly identified since the mid to late 1990’s. In light of this, the broader literature investigating the prevention or treatment of PTSD is examined for the purpose of indicating the types of therapies that may be helpful or harmful in relation to PTSD following childbirth.

The psychological intervention of debriefing is the most commonly reported intervention aimed at preventing the development of trauma symptoms and PTSD. Other psychological therapies aimed at treating PTSD and include cognitive-behavioural therapy, eye-movement desensitisation and reprocessing and psychodynamic psychotherapy. This section provides an overview of these therapies.

Debriefing

Debriefing describes a structured intervention that is intended to act as primary prevention to mitigate, or at least inhibit acute stress reactions not specifically related to birthing. Debriefing was developed separately by Mitchell (1983) and Dyregov (1989) and more informally by Raphael (1986). Mitchell’s technique was called Critical Incidence Stress Debriefing (CISD) and Dyregov (1989) referred to psychological debriefing. These two debriefing schedules were similar and in 1993 Mitchell and Dyregov jointly detailed a seven phase debriefing protocol designed to take place as a single group session within 24 to 72 hours after the event (Mitchell & Dyregrov, 1993). The seven steps are as follows:

- Establishing the ground rules of the debriefing session
- Establishing the facts of the event with individuals presenting the event from their own perspective
- Describing thoughts about what happened
- Discussing emotions
- Reviewing the signs and symptoms of distress
• Providing information on stress reactions, the normal nature of stress reactions being experienced, and specific techniques that may help to reduce acute stress reactions.

• The “re-entry phase”, in which participants raise questions, address issues in more depth or raise new issues. This phase can include future planning and advice on where to obtain further help if needed.

Debriefing has also been applied more flexibly in relation to the timing of the intervention relative to the potentially traumatising event (Armstrong, O’Callahan & Marmar, 1991) and the number of sessions included in the intervention (Robinson & Mitchell, 1993). It is also commonly used with individuals as well as groups (e.g. Hobbs, Mayou, Harrison & Worlock, 1996; Lee, Slade & Lygo, 1996), or used as part of a package of interventions such as Critical Incident Stress Management (CISM) (Everly & Mitchell, 1997).

Wessley, Rose and Bisson (2000) conducted a systematic review of debriefing to prevent PTSD and concluded that there was no current evidence that providing psychological debriefing as a single session is a useful treatment for the prevention of PTSD and that it may even be harmful. This conclusion is at odds with the responses of people who participated in debriefing studies reviewed by Wessley et al. (2000). Study participants consistently consider debriefing helpful in aiding recovery. The exact nature of the help participants receive is unclear and needs further investigation before decisions to discontinue debriefing are made (Foa, Keane & Friedman, 2000). Furthermore, Wessely et al. used loose inclusion criteria for defining the intervention used in the studies in the review. Debriefing was defined as any “brief psychological intervention that involves reworking/ reliving/ recollection of the trauma and subsequent emotional reactions” and was used as a single session only. The broad definition of debriefing might contribute to the null findings because an inappropriate form of debriefing was used (Kenardy, 2000). The timeframe ranged from within 24 hours to one month after the event and it has been suggested that the null findings may be a function of delay between trauma and intervention (Rauch, Hembree & Foa,
2001). Also, Wessley et al. (2000) acknowledged that many of the studies under review were of poor quality. Methodological weaknesses included a lack of blinding, failure to state loss to follow-up, and lack of intention to treat analysis despite high withdrawal rates (Bisson, McFarlane & Rose, 2000). Furthermore, issues of training and supervision of counsellors were not addressed (Rauch et al., 2001; Wilson, Raphael, Meldrum, Bedosky & Sigman, 2000).

**Treatment of acute stress reactions and acute PTSD**

Some studies have investigated short-term interventions to treat acute stress reactions and acute PTSD, and prevent chronic PTSD (Brom, Kleber & Hofman, 1993; Bryant, Harvey, Basten, Dang & Sackville, 1998; Bryant, Sackville, Dang, Moulds & Guthrie, 1999). These interventions are used soon after the trauma and consist of more than one session but seem limited to no more than six sessions. These therapies fit between the single debriefing session and the longer-term therapies for treating chronic PTSD (Rauch et al., 2001).

Various strategies have been used soon after the trauma for early intervention to prevent chronic PTSD. Therapies that have yielded positive results have used cognitive–behavioural therapy (CBT) or components of CBT such as exposure, anxiety management, psycho-education compared with standard care, monitoring or supportive counselling. Although many have some methodological problems and conflicting evidence, it seems on balance that multi-episode psychological interventions that provide more than supportive counselling are likely to be beneficial (Bisson et al., 2000). Questions remain about the effective components of the interventions and the appropriate number and timing of sessions.

**Treatment of chronic PTSD**

The longer-term treatment of chronic PTSD has centred on cognitive-behavioural therapies (CBT), eye-movement desensitization and
reprocessing and psychodynamic treatments. A brief overview of these therapies and a summary of their effectiveness in treating PTSD are provided.

CBT for PTSD encompasses numerous diverse techniques including exposure therapy, systematic desensitisation, stress inoculation training, cognitive processing therapy, cognitive therapy, assertiveness training, biofeedback relaxation training, combined stress inoculation training and exposure therapy, combined exposure therapy, relaxation and cognitive therapy, and combined cognitive therapy and exposure therapy (Foa et al., 2000).

The cognitive model emphasizes the importance of maladaptive/ irrational thinking in the genesis of anxiety and affective problems. Cognitive restructuring is the cornerstone of cognitive therapy and involves teaching participants first how to identify ‘faulty’ thinking (e.g. overgeneralising) and how it may be challenged and modified. The modification of negative thinking often occurs through the person’s active gathering of logical evidence for and against negative thoughts. If successful, this process is thought to lead to more adaptive thinking and consequently, to reduced emotional distress.

Behavioural therapy has long been considered the treatment of choice for anxiety disorders. The cornerstone is exposure, which involves repeated and prolonged confrontation with anxiety-evoking objects or situations, until anxiety is gradually reduced through the process of extinction/habituation. Exposure can be used on its own and in conjunction with other psychological treatments (e.g. relaxation, cognitive re-structuring etc.). In addition, it can be imagined or real, and therapist or self-administered (Livanou, 2001). Systemic desensitisation is a form of exposure therapy that is paired with relaxation (Foa et al., 2000).

Stress inoculation training is an anxiety management technique and a mixture of both cognitive and behavioural techniques (Livanou, 2001). Initially patients engage in education about symptoms and discussion of the treatment
rationale. Following this, patients learn strategies to control anxiety such as slow and deep breathing, muscle relaxation, cognitive re-structuring, thought stopping, guided self-dialogue, role playing, covert modelling, and sometimes real exposure (Livanou, 2001).

Eye-movement desensitisation and reprocessing (EMDR) originally involved asking survivors to focus on one or more distressing trauma images of memories while at the same time tracking the therapist’s index finger moving rapidly laterally across their visual field. This was repeated until survivors no longer reported distress. Trauma related negative thoughts or feelings were then treated by more eye movements during which survivors were instructed to focus cognitively on positive or realistic thoughts. In recent years, the importance of these eye movements has been challenged and other bilateral rhythmical cues are now thought to be as effective in yielding therapeutic results. Although it was originally thought that one session might be sufficient, this is no longer the case and several sessions are required (Livanou, 2001).

Psychodynamic psychotherapy is probably the most commonly used treatment for traumatised patients. Most psychodynamic treatments are designed according to the assumed different pathogenesis of each survivor’s problems. Nevertheless, post-trauma reactions are often viewed along the lines of denial, abreaction, and catharsis and importance is placed on issues of transference, resistance and earlier traumas (Livanou, 2001).

Overall, cognitive and behavioural therapies have been effective in reducing symptoms of PTSD and related problems (e.g. depression) in many studies, and improvements are maintained at follow-up (Bisson et al., 2000; Foa et al., 2000; Livanou, 2001; Mayou & Farmer, 2002; Seedat & Stein, 2000; Seedat & Stein, 2001). The effectiveness of EMDR is difficult to evaluate because of problems in distinguishing between the effect of eye-movements versus other elements of imaginal exposure and cognitive therapy. It may be that positive outcomes are a result of habituation via imaginal exposure rather than the eye-movements and further work is needed (Livanou, 2001). Studies of
individual or group psychodynamic therapies have had serious methodological flaws such as lack of a control group and inadequate description of the treatment or patients’ problems. This makes the results difficult to interpret. A limited number of studies, which used rigorous methodology, showed promising results (Livanou, 2001). Foa et al. (2000) concluded that there is insufficient evidence to judge the effectiveness of this therapy in treating PTSD.

While there is sufficient evidence for the effectiveness of cognitive and behavioural therapies, they are intended for use with people suffering from PTSD rather than as a strategy to prevent PTSD. However, they do provide guidance as to the type of strategies likely to be successful in reducing trauma symptoms in the early postpartum period and provide some reassurance that strategies fitting under the umbrella of CBT are unlikely to cause harm.

**Emotional work by midwives**

Midwives are well placed to understand and respond to the stress experienced by childbearing women. They can play a central role in assisting women to understand and reconcile stressful childbirth experiences. However, it seems that postpartum women have insufficient time and opportunity to work through the meaning of the experience for them during their postpartum hospital stay. Many studies have been critical of the poor emotional care provided postpartum. Hillan (1992, p 267) reported that “inadequate and underqualified care” resulted in communication failure, conflicting advice, confusion, and lack of maternal satisfaction. Others have found that midwives felt unprepared to intervene and manage symptoms of depression in the early postpartum period (DiMatteo, Kahn & Berry, 1993; Eden, 1989). Creedy et al. (2000) identified a low level of maternal satisfaction with the emotional care provided by staff. Only 13.5% of women reported that staff asked how they felt about the birth and only half the respondents (49.7%) perceived that staff encouraged them to ask questions about the birth (Creedy et al., 2000).
Similarly, Stamp and Crowther (1994) reported that 40% of women made one or more comments about midwife unhelpfulness in the early postnatal period. A descriptive study of women’s views of postnatal care at three postnatal time periods (first three days; 4-10 days; 11-30 days) identified that only half the women received all the emotional support they needed, with up to a quarter reporting that they received no emotional support (Singh, 2001). Hunter (2001) suggested that much more needed to be uncovered about “emotion work” in midwifery both to improve midwives’ working lives and to meet the needs of childbearing women and their families.

With 10-20% of women experiencing PND (Boyce & Stubbs, 1994; Horan-Smith & Gullone, 1998) and approximately 6% of women meeting the diagnostic criteria for acute PTSD (Creedy et al., 2000), the case for preventing, or reducing, postpartum emotional distress is compelling. Nevertheless, most women in Australia are not routinely assessed for postnatal depression or psychological trauma resulting from birth and many go untreated (Creedy et al., 2000; Webster, Linnane, Dibley & Pritchard, 2000b). There has been very little systematic research into early interventions by midwives to prevent stress response disorders, or other psychological sequelae, in women who have experienced a distressing birth (Alexander, 1998; Gamble, Creedy, Webster & Moyle, 2002; Wray & Benbow, 2001). The strategies used to prevent postpartum emotional distress have used social support, non-directive counselling, or debriefing (Holden, Sagovsky & Cox, 1989; Oakley, Rajan & Grant, 1990; Small, Lumley, Donohue, Potter & Waldenström, 2000). There is a dearth of literature reporting studies which tested strategies to treat PTSD following childbirth and only two studies were retrieved that examined the use of an early intervention to prevent chronic PTSD following childbirth (Hagan et al., 1996; Ryding et al., 1998b).

**Conclusion**

It has been clearly established that PTSD can result from a traumatic childbirth. Consistent with the literature on non-childbirth related trauma, the
development of acute trauma symptoms and acute PTSD following childbirth relates primarily to event characteristics and the post-trauma environment. Specifically, obstetric intervention, poor intrapartum care and lack of social support in labour and postpartum contribute to the development of acute trauma symptoms. Gender differences exist. Women are more likely to be exposed to traumatic events caused by a person they have a relationship with, as often occurs in childhood sexual abuse. They have an increased likelihood of developing PTSD after experiencing a traumatic event. They are more likely to develop co-morbid depression than other comorbid psychological conditions such as substance abuse. Finally, their symptoms may last longer and the pattern of trauma symptoms they report is different from men.

The psychological strategies used to prevent or treat PTSD have been described and it seems that most research supports the effectiveness of cognitive and behavioural therapies in treating acute and chronic PTSD. Midwives have a role to play in reducing childbirth related emotional distress in the postnatal period but the evidence suggests that little is known about the emotional work of midwives and that there are serious deficiencies in this aspect of care. The next Chapter reviews the literature on the specific psychological strategies used with postpartum women to prevent or reduce symptoms of emotional distress following childbirth.
CHAPTER 2

Psychological strategies for reducing emotional distress following childbirth

Psychological debriefing has been used and studied extensively in the prevention of PTSD with people, often men, suffering traumatic events such as combat or road traffic accidents. Relatively few studies have used debriefing with childbearing women. These studies are reviewed in this chapter to determine the impact of debriefing on women’s emotional well-being. In addition, two other relevant studies are reviewed that used a psychological intervention, but not debriefing, to address postpartum trauma symptoms.

Debriefing to reduce postpartum emotional distress

In the literature relating to childbearing women, the term ‘debriefing’ is sometimes used loosely to describe a range of post-birth discussions (Alexander, 1998). At times the term debriefing has been interchangeable with “counselling”, emotional “support”, “listening and explanation” (Lavender & Walkinshaw, 1998). Small et al. (2000, p1044) stated that debriefing was “determined by each woman’s experiences and concerns”, which is a significant deviation from the structured debriefing intervention developed to prevent PTSD symptoms in the general population. The lack of clarity regarding the term debriefing has caused some confusion about the purpose and effectiveness of this intervention (Alexander, 1998). In light of the problems with naming and defining the intervention, studies that used the term, “debriefing” to reduce postpartum emotional distress have been reviewed.

A search of the major databases (Cinahl 1982-2001; Cochrane; Embase; Proquest; Psychlit; Pubmed; Sociofile) was undertaken to retrieve English language publications using the key words childbirth or postpartum with post-traumatic stress disorder, anxiety, depression, trauma, stress, debriefing and
counselling. Reference lists of all relevant articles obtained were checked and additional potentially relevant articles retrieved. Informal contact with some experts and authors in this area assisted in retrieving papers presented in conference proceedings.

Studies using any method of debriefing administered as a single session in the early postpartum period with the intent of preventing psychological morbidity postpartum were included in the review. The goal was to retrieve all research articles meeting these criteria that used any type of research design. The material was critiqued, summarised, assessed for content and tabulated using the following headings: study design and sample, intervention, outcome measures, timing of follow-up and relevant results.

Findings from the literature review of debriefing following childbirth

Using these methods nine papers were retrieved. Of these, four articles that reported on the use of debriefing or counselling following childbirth were excluded. Excluded articles described innovative services that offered women the opportunity to discuss their birth experiences rather than evaluate an intervention (Allott, 1996; Charles & Curtis, 1994; Smith & Mitchell, 1996; Westley, 1997). They provide some evidence that women valued the service but were excluded because women’s psychological morbidity was not measured and women were seen at any stage postpartum, even years later. Therefore the intervention does not meet the criteria of being preventive of psychological morbidity. A study by Mauthner (1997) used a thematic analysis of the views of women who identified themselves as being depressed or recently recovered from depression to determine the helpfulness or otherwise of various factors. This study was also excluded because psychological morbidity was not measured and the study did not have a preventive focus (Mauthner, 1997).

Three randomised controlled trials that were reported in four papers were included in the review. Participants in the Hagan et al., (1999) study had their
perceptions of the intervention reported separately (Henderson, Sharp, Priest, Hagan & Evans, 1998). Details of these studies are shown in Table 2. These three studies used a midwife to facilitate an intervention referred to as debriefing. In all three studies, the debriefing intervention was conducted while the women were in hospital following childbirth (Hagan et al., 1999; Lavender & Walkinshaw, 1998; Small et al., 2000). Outcome measurement was conducted variably at three weeks postpartum (Lavender & Walkinshaw, 1998), six months postpartum (Small et al. 2000) and serially by Hagan et al., (1999) at two, 6six and 12 months postpartum.

The outcomes of the two largest trials suggest that participating in a single debriefing session in the early postpartum period, prior to discharge from hospital, does not reduce the prevalence of depression or show improvements in health as measured by the Edinburgh Postnatal Depression Scale (EPDS), the Beck Depression Inventory (BDI), the General Health Questionnaire (GHQ) or the SF-36 for measuring physical, mental and social health (Hagan et al., 1999; Small et al., 2000). One study showed that women in the debriefing arm of the trial fared worse in terms of role functioning-emotional ratings on the SF-36 sub-scale (Small et al., 2000). Conversely, the trial by (Lavender & Walkinshaw, 1998) showed reduced levels of anxiety and depression, using the Hospital Anxiety and Depression scale (HAD), in the group of women who participated in a non-structured interactive interview.
<table>
<thead>
<tr>
<th>Study</th>
<th>Design &amp; sample</th>
<th>Intervention</th>
<th>Outcome measures</th>
<th>Timing of follow-up</th>
<th>Relevant results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hagan et al. 1999</td>
<td>RCT single blind 1745 English speaking women who delivered at or near term in a large public or private hospital Not under psychological care at time of enrolment</td>
<td>A single structured stress debriefing interview conducted by trained research midwife within 96 hours of birth</td>
<td>EPDS, BDI, GHQ-28. Depression assessed by psychologist blind to the intervention status. Mothers scoring &gt;12 on EPDS plus a random stratified sample of those scoring &lt;13 were interviewed</td>
<td>2,6, and 12 months</td>
<td>282/1745 (16.2%) were depressed. No effect of postpartum stress debriefing on the prevalence of depression 134/875, 15% intervention group vs 148/870, 17% control [RR* 0.90 (95% CI 0.71, 1.1)]. No differences in EPDS, BDI, GHQ-28 scores at any assessment period between the groups.</td>
</tr>
<tr>
<td>Henderson et al. 1998</td>
<td>A cohort compromising the intervention arm of the Hagan et al. RCT (n=872) Response rate 73% (n=628)</td>
<td>Satisfaction with intervention. Self-report Acute Stress Disorder questionnaire and detailed items on labour, birth feelings and expectations</td>
<td>Satisfaction measured 2-4 weeks following discharge</td>
<td></td>
<td>67% (419) found debriefing moderately to greatly helpful 25% (155) of women were moderately to greatly distressed by birth. 81.9% (127) of distressed women found debriefing helpful. 22% (34) of distressed women found exploration of feelings helpful. 16% of non-distressed women found education about what to expect when they went home and support services more useful.</td>
</tr>
<tr>
<td>Lavender et al. 1998</td>
<td>RCT 120 women single fetus spontaneous labour at term &amp; gave birth normally to a healthy baby. 114/120 returned questionnaires (95%)</td>
<td>30-120 minute unstructured interview with research midwife during postnatal stay (after Day 2)</td>
<td>HAD scale</td>
<td>Questionnaire mailed out 3 weeks after discharge</td>
<td>Intervention group were less likely to have high levels of anxiety (Odds ratio 13.5, CI 4.1-56.0, p&lt;0.0001) &amp; depression (Odds ratio 8.5, CI 2.8-30.9, p&lt;0.0001).</td>
</tr>
<tr>
<td>Small et al. 2000</td>
<td>RCT 1041 women who gave birth by C/S (n=824), forceps (n=353) or vacuum extraction (n=64) Response rate 88.1% (n=917)</td>
<td>Debriefing session during postnatal stay or standard care conducted by trained research midwife</td>
<td>Maternal depression (EPDS), physical, mental and social health status (SF-36 sub-scales) measured via postnatal questionnaire</td>
<td>6 months post-partum</td>
<td>No difference in mean scores on EPDS or SF-36 sub-scales except for role functioning/emotional where women in debriefing arm fared worse, mean scores 73.32 v 78.98, t=-2.31, 95% CI -10.48 to 0.84. Women reported that the debriefing was helpful 237/467 (50.7%) or very helpful 200/467 (42.8%).</td>
</tr>
</tbody>
</table>

* RR = relative risk
All of the trials had some limitations making it difficult to draw firm conclusions about the effectiveness of debriefing or non-directive counselling in the early postpartum period. In the study by Lavender & Walkinshaw (1998), the sample size was small (n=114) for a randomised control trial and determined on the basis of detecting a reduction in the proportion of women scoring above seven on the HAD scale. As the analysis was based on women who scored above ten on the HAD scale, the study may have had insufficient power to detect a true difference between the groups. Furthermore, the HAD scale has not been validated for use with postpartum women, and the levels of depression and anxiety in the control group were well above the norms for this population. Lavender and Walkinshaw (1998) referred to the intervention as “debriefing” but explained that the intervention did not include in-depth questioning. However, the women participated in an “interactive interview in which they spent as much time as necessary discussing their labour, asking questions, and exploring their feelings” (p216). Although the intervention was described as an interactive interview, the nature of the responses by the midwife conducting the intervention was not detailed.

The trials by Hagan et al. (1999) and Small et al. (2000) also failed to clearly explain the intervention used. For example, Henderson et al. (1998) report on the debriefing intervention used in the Hagan et al. (1999) study as the Maternal Individual Debriefing Schedule (MIDS). It is described as a structured discussion that “allows the woman to tell her birth story in a supportive environment and includes an opportunity to explore her feelings about the experience, normalisation of those feelings and a brief educational component” (p38). The exact nature of the educational component is not provided. Small et al. (2000) refer to the debriefing intervention saying women were provided with an “opportunity to discuss their labour, birth, and post-delivery events and experiences” (p1045) and that the “content of the discussion was determined by each woman’s experiences and concerns” (p1045). In a later response by the authors to a letter commenting on the Small et al. (2000) study the intervention was described as “active listening;
reflection; encouraging the expression of women’s experiences; accepting
distress, anger and pain; being able to name and normalise the experience;
and being able to avoid offering solutions” (Lumley & Small, 2000, p1470).
Although these interventions contain some strategies identified in the
debriefing protocol detailed above, there are also some steps missing and an
overall different emphasis. It is unclear exactly how the debriefing
interventions in these two studies differ from CISD or any other form of
debriefing or even how the interventions differ from each other.

All three studies reviewed sought the participants’ assessment of the
intervention with women reporting that they found the intervention helpful,
they were satisfied with the information they received and they felt better
prepared for returning home (Henderson et al., 1998; Lavender &
Walkinshaw, 1998; Small et al., 2000).

Discussion of the literature review findings
The predominant evidence suggests that a single counselling session
(referred to as debriefing in the studies) is ineffective in reducing symptoms of
depression or improving general health as measured by standardised
research tools. The results of these randomised controlled trials should be
regarded with caution for several reasons. Firstly, an exact description of the
intervention has not been documented in any of the studies under review
making it difficult to know precisely what intervention worked or did not work.
Secondly, the outcome measures do not match the intention of a debriefing
intervention. Debriefing was originally designed to reduce trauma symptoms
and prevent PTSD (Mitchell, 1983) yet in the three studies reviewed the
outcome measures relate primarily to depression and not trauma (Hagan et
al., 1999; Lavender & Walkinshaw, 1998; Small et al., 2000). Although there
is a high prevalence of co-morbidity between depression and PTSD it may not
be accurate to assume that debriefing does not reduce trauma symptoms just
because it does not reduce depression.
Also, the extent of training/skills/ability of the person providing the counselling was unknown. The idea that one simply ‘allows the woman to talk’ belies the depth of skill involved in facilitating such disclosure. The woman could have very good reasons not to talk. Interactions that engendered mistrust, lack of rapport, or being patronised/silenced/disregarded by health professionals may all adversely hinder the therapeutic process. Perhaps if the counsellor was highly skilled and established good rapport and trust with the woman, a single session may well be effective. Midwives providing counselling may also be effective if the workplace provided space for them to develop a meaningful relationship with women throughout pregnancy, birth and recovery, and gave them training to understand and develop these ‘listening’ skills.

In light of the high proportion of participants who found debriefing helpful, it is possible that even though debriefing does not reduce postpartum morbidity using ‘caseness’ criteria of research tools, it does go some way to reducing emotional distress. Other studies support the idea that it is important for the new mother to be able to talk with a supportive listener (Reynolds, 1997). Experts seem to promote postpartum debriefing or “listening” (Berg & Dahlberg, 1998) and see construction of the birth story as a useful postpartum activity (Affonso, 1977; Creasy, 1997; Eden, 1989; Hammett, 1997; Hillan, 1992).

Despite the lack of specific documentation on the intervention, the two largest randomised controlled trials indicate that a single session in the early postpartum period does not prevent or reduce psychological morbidity and may increase problems. This finding cannot be ignored as it is consistent with the broader literature reviews on post-traumatic stress debriefing (Friedman, 2000; Wessely et al., 2000). However, there has also been criticism that these reviews included studies where the reliability and validity of the debriefing intervention had been loosely defined and methodological flaws were evident.
Several factors may explain the possible ineffectiveness of debriefing in reducing psychological morbidity. Women after psychologically traumatic births may be both shocked and emotionally numb (Kitzinger, 1992b). They may feel relief that they have survived and “long to get back to normal”. Post-birth, if the baby is well, the mother may feel that a complaint is unjustified or that she should feel grateful for the safe birth of her baby. Some women feel that they should be coping better or that is was their fault that the birth experience left them feeling traumatised (Allott, 1996; Kitzinger, 1992b). Raphael, Meldrum & McFarlane (1995) identified that there is a therapeutic quality in forgetting at this time. Similar to the value in “forgetting” the pain of labour, forgetting trauma is seen as a factor of resilience in those who do not succumb to PTSD. Raphael and others have argued that it may be dangerous to delve and elicit traumatic experiences early after a disaster based on the assumption that people ought not talk early but harness survival skills (Horowitz, 1999a; Kenardy, 2000; Raphael et al., 1995; Wessely et al., 2000). All these factors may prevent acknowledgement that there was anything amiss with their birth experience. The emotional numbness and social pressure to accept the birth experience with equanimity may render any attempts to debrief the experience within several days of birth useless. In addition, the physical demands of labour and birth and demands of caring for a newborn may result in the woman feeling exhausted and unprepared to fully engage in a review of the birth experience within the first few postpartum days.

Other researchers have suggested that the process of psychological debriefing may not work because it does not allow sufficient acknowledgement of other factors integral to dealing with trauma such as social context, previous stressors, or coping processes (Raphael et al., 1995). Importantly, it may not facilitate a genuinely caring relationship between the woman and the counsellor. By trying to provide a one-off session the counsellor may in some way diminish the importance of this traumatic experience in the woman’s life. A single session does not provide for ongoing support and may reduce the woman’s perception that the counsellor is
truly present and available for them (Kitzinger, 1992a). It may also be that the counsellor was inadequately trained or supervised or that the intervention was unsuitable.

**Psychological strategies for reducing PTSD following childbirth**

Only two studies were retrieved that used a psychological intervention, that was not debriefing, to specifically reduce symptoms of psychological trauma (Hagan et al., 1996; Ryding et al., 1998b).

Hagan et al. (1996) used a six-session cognitive-behavioural therapy intervention (CBT) program provided to women three-six weeks after experiencing a very pre-term birth (Hagan et al., 1996). Unfortunately, only the abstract of this study has been published and the reporting of results is limited. Although CBT had limited impact on the prevalence of depression the effect of this intervention on stress responses for women in the study was not reported.

Ryding et al. (1998b) trialled an early postpartum counselling intervention for women after emergency caesarean section. Three to four counselling sessions were provided to women (n=50) within three weeks of delivery by an obstetrician with a primary psychotherapy qualification. Participants completed three questionnaires intended to measure cognitive appraisals of the delivery, post-traumatic reactions and general mental distress. The women in the counselling group had more positive cognitive appraisal of the delivery, less serious post-traumatic reactions and less marked general mental distress than the comparison group. However, the counselling intervention had no demonstrable effect on women with the most serious post-traumatic stress reactions and those with the most serious mental distress.

The work by Ryding et al. (1998b) is promising, but there may be other aspects that need to be addressed through a counselling intervention. For
instance, in Australia the caesarean section rate is 23% compared with 9.1% in the Swedish hospital where the Ryding et al. study was conducted. Birth in many developed countries is highly medicalised and women are discharged from hospital early with limited postpartum community support services. In the Ryding et al. study, it was routine for the midwife and doctor involved in the delivery to visit women in the postnatal ward. This is not the case in Australia where women may be afforded few opportunities to seek clarification about the birth and may perceive health professionals as less concerned about their well-being than the Swedish mothers in the Ryding et al. study.

In summary, some women develop acute stress reactions and posttraumatic stress disorder following birth. It is associated with obstetric intervention, particularly operative birth, and poor emotional care. Several authors have expressed concern about the poor quality, quantity and distinct nature of postpartum emotional care provided by midwives.

Although cognitive behavioural therapies have successfully treated people with non-childbirth related PTSD, this therapy has not been tested with people newly traumatised probably because trauma reactions frequently resolve spontaneously making prolonged therapies superfluous to the needs of all people who have experienced a traumatic event. Debriefing has been used extensively with trauma survivors to prevent PTSD, however, when applied as a single session it does not seem to be effective in reducing non-childbirth related PTSD. The effects of providing more than one debriefing session or providing debriefing within the context of a more comprehensive crisis intervention is not known. With regard to childbirth related PTSD, the effect of debriefing is unknown because this intervention has only been used in relation to depression, largely without success. Also, the intervention was poorly described making it impossible to replicate in future research using trauma symptoms as an outcome measure. To date, the only study using an early counselling intervention with postpartum women and measuring posttraumatic stress reactions as an outcome, showed some success. However, this intervention may not be sufficient for use with women who
experience much higher obstetric intervention rates and may require advanced counselling skills. Therefore, prior to testing an intervention, a process for developing a counselling intervention is required.

**Purpose of the research**

*First purpose*
The first purpose of this research is to develop a counselling intervention for women who have experienced a traumatic birth. It is intended for use by midwives as an early intervention primarily to reduce symptoms of psychological trauma in the postpartum period.

*Second purpose*
The second purpose is to identify the incidence of acute and chronic PTSD using timeframes that conform to DSM-IV criteria.

*Third purpose*
Previous research has identified several factors contributing to the development of PTSD following childbirth. This study plans to build on this work and determine factors associated with the development of a PTSD symptom profile following childbirth. Specifically, the antenatal psychological factors of depression, anxiety and stress, and the intrapartum and postpartum factors of obstetric intervention, quality of care and social support will be assessed.

*Fourth purpose*
The study will test the intervention with women who report a traumatic birth experience using a randomised controlled trial (RCT). Firstly, it is hypothesised that participants in the intervention group will have a reduced incidence of a PTSD symptom profile at three months postpartum compared with participants in the control group. Secondly, it is hypothesised that women participating in the intervention group will have fewer PTSD symptoms than women in the control group. Thirdly, it is hypothesised that women in the
intervention group will have lower levels of depression, anxiety and stress than women in the control group. Finally, it is hypothesised that intervention group participants will have reduced feelings of self-blame and improved confidence about a future pregnancy compared with participants in the control group.
CHAPTER 3

Development of a counselling framework

This chapter will describe the approach used to develop a counselling intervention for use by midwives to ameliorate symptoms of psychological trauma following childbirth. At the heart of any intended counselling intervention is an understanding of the cognitive processes that link the event with the trauma reaction/symptom(s). To date, the only model used to explain emotional distress following childbirth is that proposed by Kendall-Tackett and Kaufman-Kanter (1993). They reviewed the qualitative and empirical literature on reactions to birth to develop a conceptual framework to describe and understand reactions to negative birth experiences. Their framework provides an interpretative lens through which women’s negative or traumatic birth experiences can be understood. They suggest that the model enables a better understanding of distressing birth experiences because interpersonal factors are often at the core of the trauma rather than the event itself, such as a painful or complicated birth. This model assists in understanding the full range of reactions to a negative birth experience and broadens the perspective from a focus only on those women meeting the DSM-IV diagnostic criteria for PTSD to all women reporting a traumatic birth. The key elements (referred to as “dynamics”) of the model are: physical damage, stigmatisation, betrayal, and powerlessness. Each of the four dynamics is summarized below.

**Physical damage** as a consequence of surgical incisions and the resultant scarring, perineal damage, haemorrhage, fractures (e.g. coccyx) or infections can cause psychological trauma. This physical damage in itself may not be traumatising but the woman’s interpretation of the injuries may be the important factor, such as feeling wounded or damaged by the experience.
Stigmatisation occurs when a woman feels different from others because of some aspect of her birth experience or embarrassed by events that occurred during her labour and delivery. Women may feel shame or embarrassment at being seen naked by a group of strangers, about losing control of bowel or bladder function, or screaming, swearing or behaving in a way they had hoped not to. Reactions of others when women describe their negative birth experiences may also cause stigmatisation. Comments that invalidate her experience and make her feel as if she is personally incompetent include statements that she should be “moving on from the birth” or question why she needs support or more healing time.

Betrayal is multi-faceted. It can occur when persons on whom the woman relied to provide care, in fact, harm her. Being treated with rudeness, insensitivity or even brutality can shatter assumptions about the helping professional. A woman may also feel betrayed by her own body if she “couldn’t push the baby out”, or her labour “failed to progress” and resulted in a caesarean section. A sense of betrayal can also occur when a woman turns to others for comfort and is treated harshly, dismissively or with indifference.

Powerlessness relates to the submissive role that many health professionals encourage women to adopt. Women feel powerless when they are not given choices over procedures and interventions, or are given inadequate time or information to participate adequately in the decision-making. Events that increase powerlessness are often sudden, involve danger to themselves or their babies, and are overwhelming. Emergency caesarean section, operative vaginal births and the baby being rushed to the resuscitation trolley are examples of events that can cause feelings of powerlessness.

Although Kendall-Tackett and Kaufmann-Kanter’s model offers an explanation of why women are traumatised, it has not been validated by empirical research. While the model contributes to an intended counselling intervention it does not provide sufficient basis for it. Hammett (1997) and Littlewood and McHugh (1997) for example, used the model in their
descriptions of distressing events at childbirth but undertook no further validation. Furthermore, although Kendall-Tackett and Kaufmann-Kanter propose strategies for supporting women following the birth (detailed in the next section), these have not been tested. Therefore, as an additional step in developing a counselling intervention, additional and more recent literature recommending and describing counselling approaches to ameliorate psychological trauma were examined. This process also allowed the provision of a clear description of the development of a counselling model. This process has not previously been articulated in the available literature.

**Counselling approaches identified in the literature**

The literature advocating postpartum counselling was reviewed to determine the content and timing of recommended counselling approaches to address women’s responses to a traumatic birthing experience. Also of interest were any discrepancies or contradictions in the suggested counselling approaches. A search of the major databases (Cinahl 1982-2000; Cochrane; Embase; Proquest; Psychlit; Pubmed; Sociofile) was conducted using the key words of childbirth or postpartum in combination with post-traumatic stress disorder, anxiety, trauma, stress, debriefing and counselling. The literature containing descriptions of postpartum counselling strategies to reduce or prevent trauma symptoms was retrieved and reference lists were searched for any further relevant papers. In light of a dearth of research on postpartum counselling to address emotional distress arising from a traumatic birth experience, papers that express opinions about postpartum counselling were included as they contribute to the development of a postpartum debriefing strategy (Schneider, Elliott, LoBiondo-Wood & Haber, 2003). Counselling strategies used to ameliorate other types of emotional distress such as depression were excluded because this research was only interested in posttraumatic stress reactions.

Seventeen publications were retrieved which describe postpartum counselling intended to ameliorate symptoms of psychological trauma. Many of these
publications describe a counselling intervention based on the author’s work with women who have experienced traumatic births, or describe knowledge of psychological debriefing, which they advocate could be used with postpartum women. Other papers describe innovative “listening” services provided to postpartum women. Only one study tested a counselling intervention for postpartum psychological trauma (Ryding et al., 1998b). A list of the papers retrieved and a summary of the counselling strategies proposed is shown in Table 3.

**Table 3: Summary of articles describing a postpartum counselling intervention**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Type of publication</th>
<th>Method/Methodology</th>
<th>Key elements of the counselling approach for postpartum women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brant (1971)</td>
<td>Opinion</td>
<td></td>
<td>Listening attentively, encouraging the expression of anger, providing realistic and factual information, rebuilding confidence and self-esteem.</td>
</tr>
<tr>
<td>Affonso (1977)</td>
<td>Research</td>
<td>Qualitative interviews with 85 women</td>
<td>Assisting women to reconstruct the birth experience through the provision of factual information &amp; assisting women to understand why events had occurred.</td>
</tr>
<tr>
<td>Kendall-Tackett &amp; Kaufman-Kanter (1993)</td>
<td>Research</td>
<td>Literature review</td>
<td>Review the woman’s chart with her, answer questions, fill in missing pieces, air feelings of disappointment, guilt or anger, assist in placing blame and credit more objectively especially if blaming themselves, offer new or more generous or accurate perceptions of the event, make referral to support groups or individual counsellors.</td>
</tr>
<tr>
<td>Charles &amp; Curtis (1994)</td>
<td>Research</td>
<td>Descriptive report on a postpartum counselling service</td>
<td>Provide opportunities for women to talk about birth, explain events &amp; answer questions, deal with feelings of guilt and blame and integrate the childbearing event with life experiences.</td>
</tr>
<tr>
<td>Ralph &amp; Alexander (1994)</td>
<td>Opinion</td>
<td></td>
<td>Debriefing (as described in Chapter 1)</td>
</tr>
<tr>
<td>Author(s)</td>
<td>Type</td>
<td>Methodology</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Creasy (1997)</td>
<td>Research</td>
<td>Qualitative interviews with 112 women</td>
<td>Explain what happened, development &amp; sharing of narrative to help make meaning of events &amp; thereby retrospectively achieve a sense of control.</td>
</tr>
<tr>
<td>Hammett (1997)</td>
<td>Research</td>
<td>Focus groups with midwives</td>
<td>Assist women gain a complete picture of labour events, an opportunity to discuss the birth, communicate the value of childbirth as a rite of passage, build self-confidence &amp; enhance self-esteem.</td>
</tr>
<tr>
<td>Reynolds (1997)</td>
<td>Research</td>
<td>Literature review</td>
<td>Provide women with opportunities to develop a birth narrative, identify emotional problems, &amp; validate feelings.</td>
</tr>
<tr>
<td>Westley (1997)</td>
<td>Research</td>
<td>Descriptive report on a postpartum counselling service</td>
<td>Acknowledge distress, provide a clear account of what happened &amp; why, express regret if expectations were not met &amp; address feelings of guilt.</td>
</tr>
<tr>
<td>Wray &amp; Benbow (2001)</td>
<td>Opinion</td>
<td>Discussion of a Royal College of Midwives (U.K.) document</td>
<td>Listen, offer women &amp; their partners the opportunity to talk &amp; share feelings.</td>
</tr>
<tr>
<td>Hatfield &amp; Robinson (2002)</td>
<td>Opinion</td>
<td>Description of postnatal “ debriefing “</td>
<td>Review the management of labour, answer questions, seek &amp; acknowledge women’s views of their care, provide an opportunity to explore their feelings.</td>
</tr>
</tbody>
</table>

Most authors considered it important to provide women with opportunities to talk about their birth experience, express feelings about what happened, have their questions answered, and have gaps in their knowledge or understanding of events addressed so that they can make sense of what happened, connect
the event with emotions and behaviours, talk about future pregnancies, and explore existential issues such as childbirth as a rite of passage.

Many of the papers under review did not specifically address the timing of the intervention, however, publications reporting on the provision of a counselling service saw women any time following the birth, even years later (Allott, 1996; Charles, 1997; Charles & Curtis, 1994; Smith & Mitchell, 1996; Westley, 1997). Other authors recommended or implied that counselling should be offered within a few days to several weeks following the birth (Affonso, 1977; Berg & Dahlberg, 1998; Brant, 1971; Creasy, 1997; Hammett, 1997; Hillan, 1992; Ralph & Alexander, 1994; Reynolds, 1997; Ryding et al., 1998b). Only two papers specifically suggested including partners in the discussion about the birth (Hatfield & Robinson, 2002; Wray & Benbow, 2001). Although caution has been expressed about the use of a formal single debriefing session (Alexander, 1998; Wray & Benbow, 2001), there was no disagreement or controversy in the papers reviewed about the content area to be covered in counselling women postpartum.

There is a high degree of consistency between the approaches described possibly because the descriptions were generalised and non-specific. Although the literature suggested several useful strategies that could be incorporated into a postpartum debriefing strategy, the literature alone provided an insufficient level of detail. Furthermore, few of the proposed interventions had been tested.

A preliminary aim of the current study was to develop a valid counselling intervention. To achieve this aim, a qualitative exploratory study was undertaken. The views of childbearing women and midwives were sought on the nature of childbirth-related stress and trauma and ways it may be addressed were investigated using focus group interviews.
Exploratory study with women and midwives

Method

Selection and recruitment of participants
A snowball sampling approach (Schneider et al., 2003) was used to recruit participants for the women’s focus group because women who identify that their birth was traumatic are difficult to locate. As there were no specific services or groups for women who have experienced a traumatising birth, a woman who co-ordinated a self-help group for women wanting a vaginal birth after a previous caesarean section (VBAC) was asked to assist in contacting women whom she knew met the eligibility criteria. The mothers were required to have given birth within the last three years, be over 18 years of age, report a traumatic birth experience and speak English fluently.

Participants for the midwives focus group were recruited through the midwifery manager at one of the hospitals participating in the study. The midwifery manager chose the date and time for the focus group to accommodate organisational needs and approached midwives who were rostered on the chosen day and invited them to participate. The focus group interview was scheduled for when staff would be available from both the morning and the afternoon shifts. Capacity for extra time was organised if the focus group session could not comfortably be completed within the hour overlap between shifts. The midwives were required to be working in a clinical capacity in any midwifery area, either full-time or part-time.

Participants
The six women participating in the focus group had accessed both the private and public systems of maternity care and had experienced various types of births including spontaneous vaginal birth, forceps, vacuum extraction and elective and emergency caesarean section. Two of the women had one child; Melissa (25 years) and Lyn (27 years). Three women had two children; Kerry (30 years), Narelle (32 years) and Debbie (35 years), and Joan (37 years) had three children. Pseudonyms have been used.
The eight midwives available and willing to participate in the focus group were working in either the public or private maternity system. Two of the midwives (Merridy and Gen), had been practising for less than five years; three midwives (Renae, Rachael and Peta) had been practising for 5-10 years; and three midwives (Maggie, Chris and Kath) had been practising for more than 10 years. The researcher did not know the midwives.

**Focus group interviews**
A qualitative exploratory framework was chosen to investigate women’s intrapartum and postpartum emotional needs and midwives’ perceptions of how to assist women in recovering emotionally from a traumatic birth experience. Focus groups provide opportunities for discussion and collaborative sharing of experiences amongst participants. The group format provided a supportive environment in which the women and midwives could discuss and uncover emotional experiences and their perceptions of women’s experiences. The group discussion provided an opportunity to gather interactive data, gain an understanding of views and explore any variation, diversity or consensus (St John, 1999). For the women, focus group interviews provided an advantage over one-to-one interviews through the potential of group interaction to minimize feelings of isolation and stigmatization (Kendall-Tackett & Kaufman-Kantor, 1993).

The researcher, who is also an experienced midwife, conducted the interviews. A broad list of questions was developed prior to the interview and used to trigger and focus discussion on the topic of emotional needs. The questions were developed from the literature on emotional distress related to childbearing and the clinical experience of the researcher and her supervisor.

Probing questions about interventions, such as “How do you think that helps?” were kept to a minimum to allow participants the opportunity to discuss their experiences and views. The interviewer guided participants back
to the research questions as necessary and ensured that all members contributed to the discussion. The sessions were audio-taped with participants’ knowledge and consent.

The focus group interview with the women was conducted in the usual meeting room for the VBAC support group. This venue was easily accessible, comfortable, private, and refreshments were available. The women participating in the focus group were asked to identify the characteristics of distressing birth experiences and their emotional needs in the six weeks following the birth. The focus group interview lasted approximately 90 minutes.

The midwives met in a private boardroom of the hospital. Participants were seated around a large oval table and refreshments were available. This focus group interview lasted for approximately 40 minutes. At the beginning of the interview the researcher provided participants with a brief summary of the symptoms of psychological trauma following childbirth, the diagnostic criteria for PTSD, and the factors contributing to the development of trauma symptoms following birth. The midwives were then asked to identify strategies to ameliorate emotional distress as a result of a distressing or traumatic birth experience.

Data analysis
The interviews were transcribed verbatim. The researcher and associate supervisor independently conducted a thematic analysis of the transcript then met to discuss their analysis and draw up a list of themes. Data analysis by independent researchers strengthens validity (Schneider et al., 2003). The researcher listened to the taped interviews and read and re-read the transcript several times. Concepts and themes were noted. The concepts were grouped into themes. The themes were then compared with each other to determine if they were truly distinct (although usually related) from the other themes. Data was reviewed again to determine that information relevant
to the question was not omitted and that any information that would contradict the emerging themes was not present.

**Ethical considerations**
Participation in the focus group was voluntary and anonymity was assured at two stages, first when participants were approached to participate in the study and again at the commencement of the focus group interviews. Pseudonyms are used to maintain anonymity. Ethical approval was obtained from the University Human Ethics Committee and the participating hospital.

**Findings: Focus group interviews with women**
Five themes were identified about the nature of trauma related to labour and birth for women. These were, *loss of the hoped for birth experience, feelings of failure and self-blame, anxiety and fear, lack of control and lack of support and feeling betrayed*. Whilst there is some overlap amongst these themes they still retain distinct elements.

The women were also asked to identify some steps that would have assisted them come to terms with, or integrate their birth experience. These are encapsulated into four main themes, *opportunities to talk about the birth, developing and understanding of events, exploring alternative courses of action, and discussing future childbearing*. These strategies are also discussed.

1. *Loss of the hoped for birth experience*
   All the women expressed a sense of loss associated with stressful childbirth experiences. This sense of loss occurred either prior to labour with erosion of the woman’s plans for the birth during late pregnancy, or during labour when obstetric intervention made their childbirth experiences a damaging ordeal.

   Participants reported that even before labour had started they felt they had been forced to abandon their hopes and plans for the birth. They described
the process of feeling “set up” and felt pressure to conform to what health professionals wanted. Some of the women felt that their needs and those of their baby were not at the heart of what they sensed were deviations from their intended birth plans. Debbie expressed this as, “I thought, ‘This (induction) is for her (the obstetrician’s) convenience’”.

The women’s hopes for a non-intervention birth were affected by the use of obstetric interventions. An expectation of an enriching experience or an unassisted birth left the women feeling robbed or cheated of their vision when this opportunity was denied to them. They talked of being “disappointed with the intervention” (Debbie), being “very upset” (Melissa) or having the hoped for experience ruined by intervention so that the birth “wasn’t a beautiful experience” (Narelle).

Although the women expected the birth to be painful, they felt prepared for the pain and this was not something that stayed in their consciousness. However, they all recalled that the experience was “awful” not because of pain but because of obstetric intervention and their perception of poor care.

Obstetric intervention changed the experience of birth from a potential achievement into a traumatic experience that stayed with them. They felt a sense of loss of how it might have been if the intervention had not been part of the birth experience.

2. Feelings of failure and self-blame
All the women expressed a sense of failure and frequently blamed themselves for their failure. Failure was perceived to be because they had allowed themselves to succumb to an unwanted procedure (i.e. an epidural). They also perceived that they had made poor choices either because their body had failed them in not achieving a normal birth or they had not been well enough informed to prevent this occurring. Some women felt that they had “made all the wrong choices” (Narelle), or “hadn’t informed myself” (Kerry)
and as a consequence “did not do it (birth) right” (Joan). The women felt a sense of failure because of their perception of physiological inadequacies such as infrequent contractions resulting in slow progress in labour, or not going into labour naturally following spontaneous rupture of membranes. Joan said that during labour she thought “you (doctor) get it out because I obviously have failed”. Another woman (Melissa) talked about “willing” her labour to start to avert the need for induction of labour.

Even though the women felt that they were vulnerable at the time and sometimes under duress, the women interpreted this acquiescence as a weakness on their part. The women all agreed with (Narelle) that “they (health professional) could do anything and you would say yes”. This experience prompted the women to start to prepare for any future pregnancies and one woman (Kerry) had told her husband not to let her “relent” to having pethidine in any future labour.

3. Anxiety and fear
Throughout the discussion the women focused on their feelings of anxiety and fear. The majority felt that they had prepared themselves adequately for birth and yet they still felt unprepared and vulnerable. They talked of not knowing what to expect and that childbirth was a new experience and could not be “known” without experience. Some women reported feeling anxious and frightened during their birth experience because of what they perceived as life-threatening or physically damaging circumstances. Several women perceived that the fear they felt during the experience was largely the result of health professional actions or comments, and they felt that their fears and anxiety were poorly addressed.

Although health professionals were in the position of being able to alleviate fear, the women felt that often their fears were not heard, acknowledged, or addressed. They looked for someone who would acknowledge and comfort their fears and to whom they could discuss such fears. Lyn found that even
when she explicitly stated that she was “… really scared” this did not elicit the reassuring response she needed from staff. Sometimes health professionals were perceived as contributing to women’s anxiety and fear. One woman reported that when the midwife was performing a routine examination of the placenta she found an abnormality that she would not show or explain to the new parents, despite the woman repeatedly asking “What’s wrong?”.

When their experience was different from their desired birth constructed during their antenatal preparation, women reported that they felt unable to shake the fear and feelings of vulnerability even following the birth. This fear and anxiety manifested itself in different ways. Debbie explained that following her birthing experience she went “absolutely hysterical and ended up taking sleeping tablets because I was just lying there going “Oh my God, Oh my God…”. For other women their fear and anxiety produced hypervigilance towards the baby. One woman (Narelle) talked about being “really really anxious” and “really fearful” and she recalled ringing the Child Health clinic needlessly concerned that there was something wrong with her baby. Another woman was “very concerned” about possible brain damage to the baby as a result of a forceps delivery.

Some women were left reeling from the experience of a traumatic birth with one woman (Narelle) recalling that she told a friend it was “just the worst thing I have done in my life”. Another woman (Melissa) could not contemplate having a second baby because she felt “so violated and damaged” from the first birth.

4. Lack of control
The women all spoke about their need to feel in control. However, the women felt that their wants and desires were secondary to hospital policies and procedures. Furthermore, retaining control was dependent on the caregiver letting the women retain control. For example, although Narelle had stated she did not want to have her waters broken she described the following
experience, “When I saw the crochet hook approaching me and I asked for a consent form they said you don’t need one. And then they said it was a really busy day and then they broke my waters”. Other phrases used by women to indicate their lack of control included, “They (caregivers) make you feel powerless” (Melissa) and “I did not want to be that statistic” (Kerry).

Although being in control was a high priority for the women they perceived that the focus of care was on getting “delivered”. For example, (Lyn) felt that the caregivers had a mechanistic view of birth and said “It is all this sort of get this baby out…” goal.

The ability of the caregiver to assume control with little or no resistance from the woman was apparent. Joan said, “with each intervention I just thought well what’s the next thing until I finally relinquished all responsibility and handed it over”.

5. Lack of support and feeling betrayed
The themes of lack of support and feeling betrayed are interconnected. Women felt that a lack of support contributed to their experience of a traumatic birth. Lack of support could be defined as an act of omission; it was not provided by the people from whom it was expected. Feeling betrayed was also connected to women’s perception that the birth was traumatic. Betrayal for the women in this group was about poor care by those people in whom it was entrusted. They talked about feeling “let down” and not being given sufficient information to make decisions. For instance, Melissa said, “I did not understand that the cascade of drugs might lead to that (a caesarean delivery)”.

The women expressed a desire for their partner and themselves to be engaged and involved in the birth. However partners were not always seen as supportive and often the women felt that they were “doing it alone”. Narelle stated that when she was in labour with an epidural in situ she was told to go
to sleep and although she couldn’t sleep her partner did and she felt resentful. She expressed a further perception of being unsupported and having her experience denigrated in saying, “And to top it off M (partner) discussed with the doctor the pubs in Dublin as he was stitching me up, while I was in the lithotomy position”.

Although women perceived themselves to be prepared for birth they felt betrayed by the “conspiracy of silence” about the possibility of adverse events. While they acknowledged that there were aspects of labour that could only be understood by experiencing labour, they still felt that other important insights were not shared with them despite attending antenatal classes and routine appointments. Debbie stated, “At the time I would have said yes I am prepared. I think I have done everything I need to do to go into labour. I would say it was all totally bullshit.” Similarly, Kerry stated, “I had been to Yoga. I went to active birth classes. Did all the right things and I knew all these things that I should be doing and I just had no idea”.

Other women gave further examples of their needs being ignored. They reported feeling frightened and not having these fears acknowledged or addressed. As Lyn said, “I don’t think anyone would ever contemplate that the woman was frightened”. Likewise their needs for respect and privacy were overridden. Many women in the group perceived that they had become “public property”, that they were not protected within the position of birthing woman. Narelle put it this way, “there was no holds bar … anybody could almost do anything to me and I was just there … I felt like public property … that is really sad …”. This notion of protection extended to bodily integrity with some women feeling damaged and unable to cope without support. Debbie stated “I had a second degree tear - right through to my anus. I’ll never feel the same about sex again (teary)”.

During the focus group interview women were also asked to identify some steps that would have assisted them come to terms with, or integrate their birth experience. These are encapsulated into four main themes,
opportunities to talk about the birth, developing and understanding of events, exploring alternative courses of action, and discussing future childbearing.

1. Opportunities to talk about the birth
All the women acknowledged the importance of talking about their birth experience in a supportive environment. Talking about the birth seemed to fulfil several important needs. It provided women with the opportunity to be heard and understood, have their story acknowledged and accepted, and their feelings validated. It also helped in constructing a coherent narrative. Speaking about the birth enabled women to develop a chronology of events and identify gaps in chronology or in their understanding of the sequence of events.

The women expressed these ideas with comments like, “She (caregiver) was prepared for us to talk to her about anything and everything…” and “I knew I could talk to her and I knew she knew what I was on about”. Most of the women commented about the value of participating in the focus group as it provided a forum for expressing feelings about the birth to sympathetic listeners. Narelle stated, “The need to talk about it with others who understand is so strong, just look what has happened here”. Their feelings at the time of the focus group were mainly related to the fear they had felt during labour, anger and disappointment with staff and self-blame about what had happened and their responses to the birth.

2. Developing an understanding of what happened and why
Women also talked about their need to have some input from a supportive person who could assist them to develop an understanding of what happened and why. Sometimes the woman’s birth supporters provided this. Debbie stated, “What was helpful was that G (partner) and I talked about it (the birth)… It was very interesting to compare our perceptions of what was going on and what he saw and we pieced together a lot of things that had gone on…”. Other women spoke of the value of speaking with a care provider who
could help them develop an understanding of events. Melissa said that in a subsequent pregnancy she had been able to get many answers about events in her previous pregnancy and commented positively “She (the caregiver) was willing to talk to us…” Likewise, Narelle managed to get answers to events occurring during her first birth during a subsequent pregnancy. She said, “When I had a second baby they talked about the first baby - that helped me”.

It seems that an understanding of events and why they happened helps women reconcile their birth experiences by minimising some of the replaying of the birth in an attempt to work out what went wrong.

3. Explore alternative courses of action that may have resulted in a different birth experience
All the women in the group were keen to analyse their birth experience, to gain a deeper understanding of the impact of various decisions and procedures, and gain insights into how the trauma may have been avoided. They wanted to critically review the management of their labour and consider alternative courses of action. It seems as if this gave them a retrospective sense of control. Most women seemed to access this information during a subsequent pregnancy when they were actively trying to avoid a repeat of their previous birth experience. The women sought out informative supportive people. Narelle expressed it this way, “I was seeking people who would give me alternatives and it was fortuitous that I met her [a midwife] at that time”. Lyn commented that in a subsequent pregnancy, “I came upon the most amazing woman [a midwife] whom I just happened upon at the hospital - she talked with me about how to get the sort of birth I wanted”. Similarly, Kerry stated, “I had talked at length with a friend who is a midwife. She was very much into sort of owning your labour, we talked through all that stuff”.

4. Discussing future childbearing
Participants identified the adverse impact of a traumatic birth on future life choices and the need to consider family planning issues. Planning for another
baby seemed connected to exploring alternative courses of action in previous traumatic births but also provided hope for the future. Melissa explicitly made this link in saying, “Knowing about how your last birth could have been different is in a way planning for the next one”. Other women saw it as a way of moving on. Kerry stated, “We talked about the birth plan for the next baby, I said: ‘Should I write anything down?’ and she said: “You could if you wanted to…””. Joan said, “You want to know that it can be better – that you can have another baby without the trauma”.

The themes identified by participants that contributed to a perception of birth as traumatic centred on loss, anxiety, powerlessness and betrayal and appeared to be inter-related.

The women gave unequivocal support for postpartum counselling, or debriefing, following a traumatic birth. They identified the need for opportunities to talk about their birth experience, developing an understanding of what happened and why, an exploration of alternative courses of action that may have resulted in a different birth experience, and discussing possible future childbearing.

**Findings: Focus group interview with midwives**

All the midwives were strongly supportive of giving women an opportunity to talk about the birth experience, and to “debrief”, especially if the birth had been complicated. They identified the need to provide opportunities for women to talk about the birth, to fill in the gaps in the birth story, to explain events, and to minimise feelings of guilt. These themes are explicated below.

1. **Opportunities to talk about the birth**

The midwives acknowledged the importance of providing women with opportunities to talk about the birth. They were familiar with the term debriefing but did not use it to describe a structured process as described earlier in Chapter 1. They instead talked of a woman-led discussion with input
as needed from the midwife. There was consensus that the woman should be able to tell her birth story at her “own pace” (Renae) and that it was important for the woman to have “time to think” (Rachael) and not to feel rushed. The midwives also agreed that the woman needed to have an opportunity to share her “perception” of the birth (Kath). They said that debriefing women in the postpartum period was a “common” activity for postnatal home visiting midwives. For example, Peta stated, “they (home visiting midwives) spend a lot of time debriefing about labour experiences”.

Participants suggested strategies for debriefing a birth experience. Some of the midwives said they specifically asked women about their perception of the birth in a general way. Merridy said she simply asked women “How did it go?” Rachael said there was value in “encouraging women to write their own birth story” so that they could “put down their thoughts on paper”. Maggie stated that partners also have a need to express their feelings. She added, “We actually encourage the husbands to write a story too”.

Some midwives identified that women may need to talk about the birth experience on more than one occasion. Renae raised issues of providing women with more than one opportunity to debrief saying that women should “have another opportunity to debrief in three weeks six weeks time”. Other midwives agreed with this.

They acknowledged that the impact of a previous traumatic birth may still be causing distress in a subsequent pregnancy and there was benefit in trying to help women come to terms with their birth experiences. One midwife (Kath) commented that women, “sometimes need to debrief about a previous experience as well”.

2. Fill in the gaps in the birth story
The midwives saw that their role was to listen, answer questions and fill in the missing pieces of information about the birth. They considered it was...
important for women to develop a clear picture of their birthing events and a coherent birth narrative. A strategy for assisting women to know what had happened was to “go through the labour record with them” (Merridy). This provided women with the opportunity to understand both what occurred and the chronology of events.

3. Explain events
Some midwives were aware of women’s need to know why certain actions or interventions occurred. Gen commented, “they need to know what actually happened and why”. Another participant (Merridy) added that debriefing provided opportunities for women to clarify aspects of the birth adding, “You know from some of the questions they have about what happened that things aren’t always clear”. There was some discussion about who should provide women with an explanation of the labour events and comments about plans at their workplace for women who had experienced operative births to “have debriefing” (Maggie) provided by the medical practitioner involved in the intervention or delivery.

4. Need to minimise feelings of guilt
Many of the midwives were aware that some women felt guilty about their birth and perceived that it was important to try to alleviate their guilt. This was described as, “they like to know it (the intervention) was necessary” (Chris), “not making them feel guilty” (Maggie) and “You don’t want them thinking they have failed” (Renae). Some participants seemed to view that guilt could be alleviated with placating statements such as “I think that was a really good decision” (Maggie). Maggie went on to say that she felt “it is important to tell the woman they made a good decision”. The other midwives seemed to concur with this. Kath commented that women would feel more confident when having a subsequent baby if they were left feeling confident that they made the right decision the first time. She said described this as “giving them credit” for their labour decision(s). Participants appeared to equate debriefing with a post hoc justification of what happened during the labour and used this
strategy to alleviate women’s feelings of guilt. This approach also reflected a view that the decisions made in labour were actually within the woman’s control, and was perhaps unwittingly laying the responsibility for what happened with the woman.

Summary
The themes identified by women resonate with the model proposed by Kendall-Tackett and Kaufman-Kanter (1993). Women’s expressions of their loss of the hoped for birth experience and feeling betrayed compare with physical damage in the Kendall-Tackett & Kaufman-Kanter model. Women reported that their experience of obstetric interventions left them feeling damaged. Feelings of failure correspond with the description of stigmatisation. The dynamic of powerlessness can been compared with lack of control and anxiety and fear. Women’s reflections on the lack of support offered to them, anxiety and fear and feeling betrayed compare favourably with the dynamic of betrayal.

Both the women and the midwives participating in the focus group gave unequivocal support for postpartum counselling, or debriefing, following a traumatic birth. However, the midwives did not mention two of the themes that emerged from the focus group with women. Specifically, the midwives made no mention of the loss of the hope for birth experience and reviewing the management of the labour and birth. Midwives were reluctant to suggest that labour could have been managed differently. They were concerned that the woman may feel that she had made the wrong decisions and this in turn would increase feelings of guilt.

The focus groups were useful in identifying the major concerns of women and the issues addressed by midwives in practice. Apparent disparities highlight the need for a framework to guide practice.
A proposed model of postpartum counselling

There is a high degree of consistency between the conceptual model for understanding women’s distressing childbirth experiences developed by Kendall-Tackett and Kaufman-Kantor (1993), the strategies identified in the literature, and the themes identified in the focus groups. These three strategies have been combined to form the basis of a midwifery counselling intervention for women who have experienced a traumatic birth.

This next section will detail the intended/proposed counselling intervention, providing a rationale for its inclusion and identifying the links between each strategy and the data that has informed it.

The proposed counselling intervention

The intervention model formed from the literature and the focus groups is comprised of nine components that, although they are set out in a logical order, in reality they often overlap. The nine components are: forming a therapeutic relationship between the midwife and the woman, accepting and working with the woman’s perceptions, supporting the expression of feelings, filling in the missing pieces, connecting the event with emotions and behaviours, reviewing the labour management, enhancing social support, reinforcing positive approaches to coping and exploring solutions. It does not include the strategy suggested by the midwives that guilt was minimised by making placating statements about labour decisions. This strategy is at odds with women’s expressed need to explore possible alternative labour decisions/actions and negated women’s perception of a reduced involvement in decision-making and powerlessness during labour.

1. Therapeutic relationship between midwife and woman

Prior to any direct questioning or discussion about the birth, gestures of kindness and understanding will help women feel less isolated and feel that assistance is willingly available. Such gestures assist in building rapport, trust
and security and provide the basis for the interpersonal support essential to this intervention and identified by participants in the women’s focus group.

It is important to assume that women are emotionally competent but that recent events have been unexpected and overwhelming. This attitude will help women reclaim their sense of competence that may have been eroded by negative birth experiences.

Initially, the midwife should ask a simple, non-threatening open question such as “How did it go?” This open-ended question conveys to the woman a willingness to listen to her perception of the birth experience. A full range of responses may be offered and some women who have experienced distressing births may be very forthright describing their experience as ‘traumatic’, ‘awful’, ‘shocking’, ‘a nightmare’. Others may hide their distress in comments that indicate survival through an ordeal such as “At least the baby is fine” or “At least I didn’t have a caesarean” or “Fine, ... I had to have a caesarean but it’s OK.” or “Not at all as I had planned (or hoped for) but ...”. Some women might use the language of violation or rape such as “I feel like I’ve been butchered”. Using this sort of general question enables the woman to retain control over the pace of disclosure. Immediately following the birth women may need to know that the midwife is aware that they have been through a distressing birth experience and is sympathetic and able to offer support, but they may be unable to work through all phases of the counselling intervention at this stage.

It may be very confronting for the midwife to hear the women’s reports of their distress, however, attentive listening and acceptance of the woman as a unique individual without defensiveness or professional distance shows the midwife’s ability to capably address this situation.

2. Accept and work with women’s perceptions
A woman’s perception of what has gone wrong is at the core of her distress (Kendall-Tackett & Kaufman-Kantor, 1993). When the woman is ready, the
midwife might ask, “What happened?” and let the woman tell her story without interruption. This enables midwives to demonstrate interest in the woman’s account of the labour and birth despite the fact that many birth details are easily accessed in the health record.

3. Support the expression of feelings
Catharsis, expression of feelings with a supportive listener who can acknowledge and validate those feelings is a recurring theme in the focus group data and literature. The birth narratives of women experiencing distress generally contain images of loss of bodily integrity, loss of control, loss of a hoped for birth experience, extreme pain and/or betrayal of trust. Importantly, women may talk about the fear they felt (or still feel) for themselves or their baby. Sometimes this fear might be described as intrusive dark thoughts. Some women might report that when they remember the birth they think about the possible negative outcomes and are not be able to put these thoughts out of their mind. They might describe feeling frightened by the ‘near-miss’ they perceive to have experienced.

Expression of feelings can be encouraged through open questions such as “How did you feel about that?” or “What was the most difficult aspect of the birth for you?” Actively listening and reflecting back the woman’s concerns are important skills in helping a woman feel understood and are consistent with the literature findings. For example, if a woman indicates she felt uncared for by the labour ward staff it may be helpful to put those feelings into a short reflective statement such as “You felt they didn’t care” or “You felt unsupported”. Helping the woman to verbalize her feelings to a supportive and knowledgeable listener might facilitate catharsis and reveal the depth and breadth of her emotional response to events surrounding the birth.

4. Filling in the missing pieces
Telling the birth story also provides opportunities for midwives to clarify misunderstandings, offer information and answer questions. A woman may want to know why examinations or interventions were performed. The midwife
might ask questions about key aspects of the birth to ensure that the woman has a clear understanding of what happened and why. For example, the midwife may ask, “Why did you have a caesarean section?” These questions sometimes uncover uncertainty about why events took place. Clarifying these aspects of the birth are crucial to the woman moving on, rather than searching back over her memory trying to make sense of what went wrong. Medical jargon and euphemisms used by staff may need to be explained, such as an occipito-posterior fetal position being described as “OP” or a non-reassuring cardiotocograph recording being referred to as “The baby is getting tired”. It may be useful for the woman to understand the connection between events such as the effect on labour of epidural analgesia. The midwife should not be tempted to defend or justify the care provided. Be realistic and factual. Treat each question and concern seriously and do not give superficial reassurance. For women who seem to have a coherent understanding of what happened, it is still useful to have their version of events corroborated by a health professional. An attitude of acceptance of the woman’s unique experience of her labour is required. The aim of this phase is for each woman to gain as much factual information as needed to complete her picture of the birth.

5. Connect the event with emotions and behaviours
The importance of helping women build connections between the events and intense emotions and behaviours was evident in the literature and the focus group with women. For example, she may have been frightened at the birth when the baby was initially blue, floppy and not breathing. She may have thought the baby was dead or damaged and now experience difficulties being emotionally close to the baby. Conversely, she may be hypervigilant with regard to the baby and not want other people to hold the baby for fear of disease or damage. Some women may feel that the baby has a tenuous grip on life and worry excessively about SIDS, accidents or infections. Questions that may help are “Why do you think you are feeling (or doing) this?” Some women might be able to identify that their emotions and behaviour stem from the birth with comments like “I feel like he (baby) has been through enough
and I don’t want him to have any more distress”. Other women may need help connecting their current feelings and behaviour with the traumatic events. The midwife can help by asking, “Do you think the way you are now is connected to the things you went though during the birth?” In this way the topic is introduced for the woman to pursue if she wishes.

Some women might talk of their fear regarding a possible subsequent pregnancy. It may be helpful to see this as an expression of how overwhelming she has found this birth experience and to encourage her to explicitly see this connection thereby retaining a “here and now” focus. Nevertheless, she may also need to know of actions she can take to minimize the risk of a similar birth experience in the future. This is consistent with data from the focus group with women.

Acknowledging the grief and loss associated with childbirth, particularly if the baby is healthy, may be difficult for some women. Social pressure to accept the birth with equanimity and relief if she and the baby have survived relatively unscathed may result in statements such as “At least the baby is O.K.” These issues need to be specifically addressed by the midwife. Possible losses such as separation from the baby after birth, loss of a hoped for positive birth experience, a perception of permanent physical damage (“I'll never be the same again”), loss of control and feelings of failure should be raised with the new mother. The midwife needs to validate these losses as real and important by talking about the significance of the birth experience and the early days with the baby.

The midwife should gently challenge and counter distorted thinking. Self-blame is a prominent issue in relation to negative or distressing birth experiences. Women might sometimes blame themselves for not being able to cope better with labour pain, for having an epidural, for agreeing to induction of labour, even for not pushing hard or long enough to avert a forceps delivery. Some women might blame themselves for not insisting that their concerns were taken seriously and make comments like, “I knew
something was wrong and should have insisted that they do something”. Careful listening by midwives may identify statements by women that indicate self-blame. Any comments that begin with “I should have …” such as “I should have prepared myself better” or comments indicating some perceived personal inadequacy such as “I have a low pain threshold” need to be explored, actively challenged and resolved. The midwife may need to focus the woman on her rights as a patient, particularly her right to competent treatment, her right to give and refuse consent, and her right to be listened to and her concerns taken seriously. The aim is to resolve inappropriate self-blame without engendering inappropriate denigration of the health care providers. Women may feel they have failed at birth and that this somehow reflects on them in their role as a woman and a mother. The midwife should challenge this thinking as it hinders a return to emotional equilibrium and is inaccurate. It may help to say, “It is not you fault” or “You are not inadequate”.

Although women are competent decision-makers, their coping skills may be temporarily impaired because of the crisis. Women may feel unable to make decisions or hastily make inappropriate decisions in an effort to return to a state of emotional equilibrium. For example, a woman may be unable to deal with unwanted visitors to the postnatal ward and be in need of protection from undue demands and stimulation so she can rest. Alternatively, she may make a hasty decision to give up breast-feeding if she experiences any difficulties. During this time even small problems, which would be resolved readily in usual circumstances, are just too much to deal with. Without taking over, midwives can assist the woman to see that the decision may be premature.

6. Review the labour management
Women may need to gain a rational understanding of events to enable progress from a point where she can recount her experiences and feelings to a more fully informed or broader perspective of the birth. In light of the link between obstetric intervention and PTSD, the woman is encouraged to consider alternative courses of action that may have yielded a different birth outcome,
including different models of care. Kendall-Tackett & Kaufman-Kanter (1993) suggested that it was important to offer new or more generous or accurate perceptions of the event and that women need assistance in placing blame and credit more objectively, especially if they are blaming themselves. Women in the focus group were keen to know how labour may have been managed differently and was closely connected to planning for a future pregnancy.

Many women have clear insights about the birth and asking the question “Is there anything they (the doctors and midwives) could have done differently or better?” indicates to the woman that you see her as competent and value her assessment of the experience. Women in the focus groups connected epidural use with operative vaginal births, deviations in their blood pressure with fetal heart rate abnormalities, and lack of one-to-one support with increased use of pharmacological analgesia and the implications for their labour. Some women may make statements that identify the turning point in their pregnancy or labour when things started to go awry. Other women may need information, or for the midwife to provide a plausible explanation. An example of information provision would be the connection between continuous midwifery support in labour and reduced need for pharmacological pain relief. Women may use this information to connect epidural use, her reduced ability to push and give birth within the expected time frame and the resultant vacuum extraction. It is important that any review of the birth acknowledges the uncertainty of outcome of any course of action but women should be encouraged to realistically postulate how certain courses of action may have resulted in a more positive outcome. This may facilitate the woman’s sense on control and her belief that the world is manageable and predictable enough for her to plan for the future especially in relation to future pregnancies.

7. Enhance social support

Regaining usual competence following a crisis is enhanced by the availability of interpersonal and social support. The midwife needs to initiate discussion about existing support networks and talk about ways to receive additional
emotional support during this vulnerable phase. The woman’s partner may also be in crisis if he/she witnessed overwhelming events. Other family members may want the woman to be happy and healthy and therefore have trouble acknowledging that anything is amiss. These issues should be specifically discussed with regard to the social and emotional support available to women.

8. Reinforce positive approaches to coping
Midwifery postpartum counselling builds on the assumption of client competence by reinforcing any comments by women that reflect a clearer understanding of the situation, demonstrate planning for the way forward, or outline positive action to overcome distress. Signs of a clearer understanding of the situation might include statements such as “I know it is not my fault now” or “I can see that having another baby wouldn’t automatically mean the same thing would happen again”. Examples of positive actions may include regularly seeing or speaking with a supportive friend, or talking about the experience and her current feelings with her partner.

The midwife still needs to listen carefully for oblique defeatist thoughts such as “I know it is not my fault but …”. This qualifying “but” probably means that at some level the woman still feels responsible and these attitudes need to be challenged. Failure to challenge may result in the woman feeling that her interpretation of the situation is correct and that the midwife agrees.

9. Explore solutions
Although there is a place for influencing and directing in the immediate aftermath of the crisis, the longer-term solutions to restoring self-confidence, reducing anxiety and facilitating a return to the pre-crisis state lie with the woman. Midwives need to support women to explore and decide upon potential solutions. Women may have a range of issues to be addressed to promote healing. Two examples of possible issues and suggestions to assist with resolution are presented here.
Some women may have difficulty with their partner’s reaction to the birth. Some partners may want to put the birth behind them, to avoid talking about it and to focus on the future. This may leave the woman feeling unsupported and resentful. Acknowledging the distress her partner may have experienced during the labour, accepting individual and gender-influenced styles of coping and looking for other people who can provide emotional support, perhaps through a support group, may be one solution.

Other women may feel anger toward their caregivers, especially if they felt betrayed. For these women it may be useful to write a birth narrative and/or keep a journal, to join a maternity consumer action group, or write a complaint letter, which they may or may not send. Some women might raise the issue of civil litigation. All these options should be carefully explored and the woman asked to assess the risks and benefits of each strategy. For instance, a timely and appropriate reply to a complaint letter may result in the woman feeling that her distress has been acknowledged and an apology may provide some solace. Alternatively, a defensive reply to the complaint may exacerbate feelings of betrayal and anger.

Women should be encouraged to seek out the help they think is needed for healing from the traumatic birth experience. Some women may need to seek ongoing emotional support from a consumer support group or a counsellor. Other women may need ongoing physical problems addressed by a medical practitioner or continence advisor or need to seek specific information relating to the event or their recovery. Several authors suggested referring women to support groups and/or a counsellor may be necessary; however, the emphasis of this strategy is on promoting a sense of control.
A summary of the main points of the intervention is tabulated below.

Table 4: Key elements of the proposed counselling intervention

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Key elements of counselling intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapeutic relationship between the midwife and woman</td>
<td>Show kindness; affirm competence of the woman, simple non-threatening open questions about the birth, attentive listening, and acceptance of the woman’s perspective.</td>
</tr>
<tr>
<td>Accept and work with women's perceptions</td>
<td>Prompt the woman to tell her own story, listen with encouragement but not interruption.</td>
</tr>
<tr>
<td>Support expression of feelings</td>
<td>Encourage expressions of feelings by open questions, actively listening, reflecting back the woman’s concerns.</td>
</tr>
<tr>
<td>Filling in the missing pieces</td>
<td>Clarify misunderstandings, offer information, answer questions realistically and factually, ask questions about key aspects to check understanding. Do not defend or justify care provided.</td>
</tr>
<tr>
<td>Connect event with emotions and behaviours</td>
<td>Ask questions to determine if the woman is connecting current emotions and behaviours with the traumatic event(s)._acknowledge &amp; validate grief and loss. Gently challenge and counter distorted thinking such as self-blame &amp; a sense of inadequacy. Encourage the woman to see that inappropriate or hasty decision may be a reaction to the birth.</td>
</tr>
<tr>
<td>Review the labour management</td>
<td>Ask if the woman felt anything should have been done differently during labour. Offer new or more generous or accurate perceptions of the event. Realistically postulate how certain courses of action may have resulted in a more positive outcome. Acknowledge uncertainty.</td>
</tr>
<tr>
<td>Enhance social support</td>
<td>Initiate discussion about existing support networks. Talk about way to receive additional emotional support. Help the woman understand that her usual support people may be struggling with their own issues.</td>
</tr>
<tr>
<td>Reinforce positive approaches to coping</td>
<td>Reinforce comments by women that reflect a clearer understanding of the situation, plan for the way forward or outline positive action to overcome distress. Counter oblique defeatist statements.</td>
</tr>
<tr>
<td>Explore solutions</td>
<td>Support women to explore and decide upon potential solutions e.g. support group(s), further one-to-one counselling, seeking specific information, accessing the complaint system.</td>
</tr>
</tbody>
</table>

**Conclusion**

The proposed counselling intervention draws together the traumagenics model proposed by Kendall-Tackett and Kaufman-Kanter (1993), the descriptions in the literature of postpartum counselling interventions to
ameliorate emotional distress resulting from traumatic birthing experiences and focus group data with women and midwives on birthing trauma and ways to address it.

Ultimately, the proposed counselling intervention strategies are aimed at providing emotional support and catharsis, promoting a realistic perception of the birthing events, drawing in adequate situational supports for the present and near future, affirming that negative things can be managed and developing a simple plan for achieving this. This should diminish emotional distress, re-institute constructive coping mechanisms and allow the crisis to pass and healing to start.
CHAPTER 4

Method: Randomised controlled trial of the debriefing intervention

The review of the literature in Chapter 2 identified significant gaps in the area of birthing and trauma. Firstly, the intervention in all except one of the studies was poorly described. A dearth of information was provided and it could not be determined if the intervention could reasonably be called debriefing. Secondly, only one study used PTSD or symptoms of trauma as an outcome measure (Ryding et al., 1998b). The other studies used other psychological measures for depression, anxiety or general health (EPDS, BDI, GHQ or SF-36 sub-scales). Finally, most previous research has used relatively arbitrary criteria in targeting the intervention, for instance, women who had experienced an emergency caesarean section (Ryding et al., 1998b), and women who had experienced an operative birth (Small et al., 2000). This approach inappropriately narrows the applicability of the intervention and excludes other groups of women who may experience trauma symptoms following childbirth. Other studies have not targeted women most likely to experience distress following childbirth, and as a result the women who received intervention were those least likely to need it, thereby contributing to a null result (Hagan et al., 1999).

A randomised controlled trial was considered appropriate to minimise the effect of extraneous factors and allow conclusions about the effectiveness of the intervention (Polgar & Thomas, 1995). The overall research design is depicted in Figure 1.
Recruit women in last trimester

Data collection
- Demographics
- Obstetric history
- Edinburgh Postnatal Depression Scale
- Depression Anxiety and Stress Scale
- Maternity Social Support

Data collection & screening
- Postpartum questionnaire (satisfaction with care & obstetric events and interventions)
- Asked screening questions for Criterion A DSM-IV

Random allocation
Women screening positive were randomised into intervention or control group. Women in intervention group provided with first debriefing opportunity. Women screening negative allocated to ‘normal care’ group.

Normal Care Group
- MINI – PTSD scale
- Edinburgh Postnatal Depression Scale
- Maternity Social Support Scale

Intervention group
- MINI – PTSD scale
- Edinburgh Postnatal Depression Scale
- Maternity Social Support Scale
- Plus debriefing intervention

Control Group
- MINI – PTSD scale
- Edinburgh Postnatal Depression Scale
- Maternity Social Support Scale

Final outcome measure - all groups
- Edinburgh Postnatal Depression Scale
- MINI – PTSD scale
- Depression Anxiety and Stress Scale
- Maternity Social Support Scale

Figure 1: Study design and schedule of data collection
The study design has a number of strengths.

- Randomisation should control for extraneous variables and the control group will enable any differences in the outcome to be attributed to the intervention.
- Applying standardized tools for measuring the psychological health of participants improves reliability and validity.
- Assessing women’s perception of the birth experience against DSM-IV criterion A for PTSD identifies those participants at risk of developing PTSD and thereby enables the intervention to be provided to the appropriately defined target group.
- The timing of the follow-up and final measurements enables identification of participants who meet the diagnostic criteria for acute PTSD and chronic PTSD. The final measurement is applied well after the last counselling session so any sustained effect of the intervention can be ascertained.

A possible limitation of the study is that the researcher's and/or participants' expectations could unwittingly affect the results of the study. This is known as the Rosenthal effect. It is controlled by using double-blind procedures that are not applicable in this study because of the nature of the intervention (Polgar & Thomas, 1995). Likewise, participation in research can alter behaviour and bias results. Known as the Hawthorne effect, this potential problem is also controlled by blinding procedures. Applying the psychological measures at the same intervals to the control group and intervention group would possibly mitigate the Hawthorne effect. This provides participants in the control group with contact with the researcher (Polgar & Thomas, 1995). This approach was employed in the current study.

**Setting**
Recruitment and measurement of antenatal characteristics took place in the antenatal clinics of three metropolitan teaching hospitals. Recruiting from three sites in South-East Queensland maximized the chances of gaining a
sample that represents birthing women in Queensland. The first postnatal follow-up took place while the women were in hospital, and follow-up at four to six weeks and three months postpartum took place via telephone contact.

**Participants**

**Inclusion criteria**

Women 28 weeks pregnant or more, who could read and write English and were able to participate in telephone interviews following the birth.

**Exclusion criteria**

Women under 18 years of age, and women experiencing a neonatal death.

**Selection of participants**

Registered nurses in each antenatal clinic initially identified women more than 28 weeks pregnant and asked if they would be interested in speaking to the researcher.

**Sample size**

The sample size was calculated on the basis of previous research which found that one-third of postpartum women reported a traumatic event and three or more trauma symptoms (Creedy et al., 2000). The present study aimed for an effect size of 30%. This represents a realistic improvement that would be of clinical significance. To provide a power of 80% using an alpha of .05 at least 42 women would need to be allocated to either the treatment of intervention groups. A further eight women (20%) were added to the calculations to allow for withdraws. To this end, 424 women were approached in the antenatal clinics of the participating hospitals. Four hundred women agreed to participate and completed the first questionnaire. Twenty-four women refused consent or after they were approached it became clear that they did not have the English skills necessary for completing the questionnaire or participating in telephone interviews. Following birth, women
who perceived their birth experience as life threatening for themselves or their baby or were frightened that they or their baby would be seriously injured or permanently damaged were randomised into either the treatment or control groups. To provide sufficient power to detect a true change in outcome, 50 women were allocated to the treatment group and 53 women were allocated to the control group.

**Method of data collection**
Telephone interviews were chosen for data collection following discharge from hospital. This approach was based on the success of previous work that used telephone interviewing to gather potentially emotionally charged information in a sensitive way whilst achieving low attrition rates (Creedy et al., 2000). Although telephone interviews have been widely used in fields such as market research, they have only recently been used for diagnostic interviews or administering an intervention (Creedy et al., 2000; Lattimer et al., 1998; Muender, Moore, Chen & Sevick, 2000). The use of the telephone to contact postpartum women is unobtrusive yet effective in providing women with one-to-one contact and is practical given the demands of early motherhood. This facilitates rapport and enables questions and responses to be clarified as needed.

**Description of instruments**

**Antenatal Questionnaire**
The antenatal questionnaire sought personal information and some obstetric details and is shown in Appendix A. Specifically, participants’ age, occupation, educational level, ethnicity and marital status was sought. Obstetric information included the expected date of birth, parity, multiple pregnancy, some previous obstetric complications including operative birth, breech birth, premature birth and haemorrhage and whether they have previously experienced a stillbirth, abortion or miscarriage. This information enabled comparison of the sample with the birthing population in Queensland.
Edinburgh Postnatal Depression Scale (EPDS)

The EPDS is a simple self-report questionnaire with 10 items designed to screen for depression (Cox, Holden & Sagovsky, 1987). Women are asked to underline one of four possible responses to each question. Each item is scored from 0-3 and summed to produce a total score. The range of scores is from 0-30 with higher scores indicating more negative feelings. The EPDS is shown in Appendix B. Scores above 14 antenatally (Murray & Cox, 1990) and 12 postnatally (Cox et al., 1987) are indicative of depression.

It is widely used in perinatal psychiatry and has been validated for use during pregnancy as a screening tool (Murray & Cox, 1990). The EPDS has been shown to be valid and reliable for use in Australia as a screen for PND (Boyce, Stubbs & Todd, 1993; Boyce & Stubbs, 1994). A validation study found the EPDS has satisfactory sensitivity (86%) and specificity (78%) and was also sensitive to change in severity of depression over time. Split-half reliability was 0.88 and standardised alpha coefficient was 0.87 (Cox et al., 1987). The measurement of depression is relevant to this study because of the high co-morbidity of PTSD and depression amongst women (Deering et al., 1996; Seedat & Stein, 2000) and case study reports of significant co-morbidity of depression and post-traumatic stress following emotionally traumatic childbirth (Ballard et al., 1995).

Depression, Anxiety and Stress Scale - 21 items (DASS-21)

The DASS-21 is a set of three self-report scales designed to measure depression, anxiety and stress. Participants respond to the DASS-21 by rating the degree to which each symptom was experienced over the last week on a 0-3 Likert scale (see Appendix C). The DASS-21 is designed to emphasize states rather than traits. The DASS-21 has seven items for each sub-scale and scores are calculated by summing the responses for the relevant items (Lovibond & Lovibond, 1995). The Depression sub-scale includes items that measure symptoms typically associated with dysphoric
mood (e.g. worthlessness). The Anxiety sub-scale includes items that are primarily related to physical arousal, panic attacks and fear (e.g. trembling). The Stress sub-scale includes items that measure symptoms such as tension, irritability and a tendency to overreact to stressful events. It has been tested with clinical and community groups. The Cronbach’s alpha for the DASS-21 subscales was .94 for Depression, .87 for Anxiety and .91 for Stress (Antony, Cox, Enns, Beiling & Swinson, 1998).

Concurrent validity was established by computing correlations with other measures of depression and anxiety; the Beck Depression Inventory, Beck Anxiety Inventory and State Trait Anxiety Inventory - Trait version (STAI-T). The DASS-21 seems to differentiate anxiety from depression better than the STAI-T (Antony et al., 1998). Symptom severity scores for depression, anxiety and stress are provided (Lovibond & Lovibond, 1995). For depression a range of scores between 0-9 is considered normal, 10-13 indicates mild depression, 14-20 equals moderate depression, 21-27 is consistent with severe depression and greater than 27 equals severe depression. For anxiety, a range of scores between 0-7 is normal, 8-9 equals mild anxiety, 10-14 is consistent with moderate anxiety, 15-19 is severe and greater than 20 is extremely severe anxiety. The range of scores for stress are as follows: normal 1-14, mild 15-18, moderate 19-25, severe 26-33 and extremely severe stress is greater than 34 (Lovibond & Lovibond, 1995).

Maternity Social Support Scale (MSSS)

This tool measures the six factors consistently associated with postnatal depression when family and personal psychiatric history are excluded. These factors are, lack of family support, lack of friendship, lack of help from spouse/partner, feeling controlled by spouse/partner, and feeling unloved by spouse/partner. Each factor is measured on a five-point Likert scale to measure the social risk factors for PND. Scoring for two items is reversed; “There is conflict with my partner” and “I feel controlled by my partner”. The total possible score for the scale is 30, with scores categorised as low support
(6-18), medium support (19-24) and > 24 (adequate support) (Webster et al., 2000a). The MSSS tool is shown in Appendix D.

Postnatal questionnaire

This questionnaire, which measures satisfaction with labour and birth care, is part of a larger postal survey of recent mothers called, Women's Experiences of Childbirth Services used to inform the Birthing Services Review in Victoria (Health Department of Victoria, 1990). The tool was used again in 1993 to survey recent mothers in Victoria (Brown, 1998). The 43-items seek information on the options and choices offered to women, their level of satisfaction with the information provided, obstetric interventions and procedures, the course of labour and birth (e.g. the time in labour, the analgesia used, the type of birth), the quality of the interpersonal skills of the attending health professionals and if they had a chance to talk to a health professional about their feelings in relation to the birth. Measuring women’s satisfaction with labour and birth care, especially levels of obstetric intervention and the interpersonal skills of health professionals, is used to determine the incidence and contributing factors in the development of trauma symptoms following childbirth.

For the purpose of this study, three questions were added to this questionnaire. They sought information that would distinguish women at risk of developing an acute stress response to the birth experience. The questions assessed if the participant met Criterion A of the DSM-IV criteria for PTSD. The additional questions were “At any stage during the pregnancy, labour or birth did you think you or your baby’s life was at risk?” At any stage during the pregnancy, labour or birth did you think that you or your baby would be permanently damaged or seriously injured?” and “How did you feel about this?” This questionnaire is shown as Appendix E.
Mini-International Neuropsychiatric Interview - PTSD (MINI-PTSD)

The MINI - PTSD is a structured diagnostic interview for DSM-IV and ICD-10 psychiatric disorders. It seeks information about the woman’s perception of the traumatic event, whether she is re-experiencing the event, avoidance of stimuli that may remind her of the event, symptoms of increased arousal and disturbance of everyday function. For the purposes of this study the wording of the MINI was modified to reflect birth as the possible traumatic event.

Validation and reliability studies have compared MINI to the SCID-P for DSM-III-R and CIDI and show acceptably high validation and reliability scores. The Kappa value was 0.78, sensitivity = 0.85, specificity = 0.96, positive predictive value = 0.82, and negative predictive value = 0.97. Interrater and test-retest reliability was high. The Kappa value for interrater reliability was 0.95 and test-retest Kappa value was 0.73 (Sheehan et al., 1998). Apart from the reliability and validity of this instrument, it is short, inexpensive and suitable for use in the research setting. It is shown in Appendix F.

Measurement of other outcomes

At three months postpartum, four additional questions were asked of women in the control and intervention groups to assess the affect of the intervention on self-blame and confidence about a future pregnancy and to evaluate the intervention in terms of perceived usefulness. Women were also asked when counselling to address trauma following childbirth should first be offered. These questions are shown in Appendix G.

Procedures

Phase 1: Recruitment and antenatal measures

Initial recruitment and data collection

Consecutive women meeting the inclusion criteria were approached to participate in the study and given information verbally and in writing about the nature of the study. Immediately after written consent was obtained, women were asked to complete the questionnaire. The questionnaire took
approximately 25 minutes to complete and comprised of the antenatal questionnaire, EPDS, DASS-21, and MSSS. Antenatal recruitment enabled antenatal characteristics to be measured providing a useful comparison with postpartum psychological health. Recruitment took place between March 2001 and February 2002.

Phase 2: Data collection, screening and intervention

Data collection and screening for group allocation
Within 72 hours of giving birth participants were seen prior to discharge from hospital and the first postpartum questionnaire was completed. This interview took approximately 40 minutes. The questionnaire consisted of the satisfaction with care scale and questions regarding perceived threat to their or their baby’s life or risk of serious injury or permanent damage.

Any women reporting perceived risk to life or risk of damage or injury were randomised into either treatment or control groups using computer generated random assignment and sealed opaque envelopes. The researcher took the random assignment envelopes to the postpartum interviews with women and the envelope was opened to determine group allocation for women who met the screening criteria. The remaining women were allocated to the usual care group. The first of two counselling sessions was offered immediately following randomisation to women in the treatment group. At this stage they were also provided with the research midwife’s telephone number to initiate contact if they wished. The control group and the usual care group received standard care.

Phase 3: Data collection and intervention
At four to six weeks postpartum all participants were contacted by telephone for the second postpartum interview. This included the EDPS, MINI - PTSD and MSSS and took approximately 15 minutes to complete. The timing of this interview was crucial to the accurate identification of women who met the diagnostic criteria for acute PTSD, as symptoms must be present for at least
one month (American Psychiatric Association, 1994). Following data collection, women in the intervention group were provided with a second opportunity to discuss their birth experience. At this stage 10% of calls were monitored by a third party, a midwife experienced in counselling postpartum women, to assess for consistency of the intervention used with the framework detailed in Chapter 3.

Phase 4: Final data collection

The final measurement was conducted at three months postpartum. PTSD is considered chronic if symptoms meeting the diagnostic criteria are present for three months or more (American Psychiatric Association, 1994). The interview schedule consisted of the EPDS, DASS-21, and MSSS.

At this stage women in the intervention group were asked about their view of the helpfulness of the intervention in assisting them come to terms with their birth experience. As it may have been difficult for women to answer this question truthfully because of gratitude to the counsellor, 20% of participants were telephoned again by a third party, a person not involved in other aspects of the research, about satisfaction with the intervention. There was complete agreement between the initial answers and the answers provided to the research assistant.

Ethical considerations

Prior to administration of the antenatal questionnaire, participants were given information, verbally and in writing, about the nature of the study and informed of their right not to participate, to withdraw at any time without explanation or penalty, and to omit answering any questions if they wished. No coercion was used for individuals to participate in the study. Opportunities were provide for participants to ask questions at any stage. Participants were required to sign a consent form. The information sheet and consent form are presented in Appendix H.
The ethics committees at the University and the three participating hospitals approved the research. Participation in the study did not disadvantage women. It was anticipated that women in the intervention group would have reduced psychological distress following childbirth and women in the control and the usual care groups received standard care and were provided with an opportunity to debrief at the completion of the data collection at three months postpartum. Due to the scheduled measurement of women’s psychological well-being, women in all three groups had an increased chance that psychological distress would be identified earlier. Any women identified as being in need of psychological assistance during the course of the study were referred to the appropriate agency as detailed in the written information provided to women as part of routine care at all participating sites.

Data from questionnaires and interviews will be securely held for five years. Data entered into a computerised database protects the identity of the participant through the use of a code number.

Provision was made for communicating results in an easily understandable format. A lay summary has been sent to all consenting participants. Participants were assured of anonymity in publications and dissemination of study results.

**Statistical procedures**

Data were entered and analysed using SPSS version 10 (2000) personal computer version. Collected data were reviewed for completeness and consistency within a single data form and among data forms. The accuracy of data coding and computer entry was checked by comparing the computerized data with the original data for a random sample (10%) of the database. The distribution of each variable was reviewed for skewed or kurtotic distributions.

Frequencies, means and standard deviations were calculated as appropriate on the demographic variables. Total scores and sub-scores on standardised
measures were summed to produce interval data. Properties of tools were assessed using Cronbach’s alpha for reliability (internal consistency). To determine the efficacy of the intervention with regard to PTSD, depression, anxiety, and stress the women were divided into the intervention group and the control group and a Chi-square analysis was used. A \( t \)-test was used to determine if the intervention influenced the PTSD total symptom score and the effect of the intervention on self-blame and confidence about a future pregnancy.

An alpha level of .05 was used for all statistical tests.
CHAPTER 5

Results: Demographics, obstetric events, measures and incidence of PTSD

This chapter presents the analysis of data related to sample characteristics, incidence of obstetric events, incidence of traumatic symptoms and PTSD. The validity and reliability of measures is also established. The response rate achieved in the study is reported. Descriptive statistics are used to describe the representative nature of the sample. A comparison of the demographic characteristics of the participants recruited in the antenatal phase with the State birthing population or national figures is demonstrated.

Response rate
Of the 424 women approached to participate in the study, 24 women refused or did not meet the inclusion criteria relating to fluency in English. A total of 400 women participated in the first phase of the study. A CONSORT flow diagram (Figure 2) depicts information from the four phases of the trial (enrolment, allocation, follow-up at four to six weeks postpartum, and follow-up and analysis at three months postpartum) (Moher, Schulz & Altman, 2001). Of the women allocated to the intervention or control groups, only one woman in the intervention group could not be contacted at the Phase 3 follow-up at four to six weeks postpartum. She was successfully contacted at three months postpartum (Phase 4).
Figure 2: Response rates from the four phases of the trial
**Demographic data**

Demographic characteristics are shown in Table 5. State and national figures are shown for comparison (Australian Bureau of Statistics, 2000; Queensland Health Department, 2001). The sample was similar to the Queensland birthing population for age, marital status, education and ethnicity.

The mean age for women in the sample of 27.84 years (range of 18 to 46 years, SD = 5.58 years) is the same as the State-wide population of birthing women. There was a slight increase in the number of women in the 20-24 year age group and a corresponding slight decrease in the 30-34 and 35-39 year age groups in the present sample.

Three categories of marital status: married/defacto, single and separated/other (e.g. divorced) were used. The marital status of this sample is comparable with the Queensland Perinatal Statistics Data for 1999 with a slight decrease in the number of married/de facto women and a slight increase in the number of single or separated or divorced women.

Four categories of ethnicity were used. The majority of women in the sample were Caucasian/European (91.4%), with a slight decrease in the number of women who identified themselves as Asian (4.3%) or other (3.5%) compared with Queensland perinatal data (Queensland Health Department, 2001). There was a lower percentage of aboriginal and Torres Strait Islanders (.8%) which possibly reflects local rather than State-wide demographics.

Although the occupational status of participants reflects trends in the general population figures for women (Australian Bureau of Statistics, 1993), the data for this study is more inclusive of the activities of childbearing women by including the categories of home duties, student and unemployed. The largest proportion of participants (37.2%) listed “clerical/sales & service” as their occupation at the time of the survey, closely followed by home duties (31%). The inclusion of the extra categories, particularly “home duties”, may account for the discrepancies in the figures for the professional/associated
professional category. However, amongst the other categories contained in both data sets, the rates parallel each other.

The majority of women achieved all or part of their secondary education (68%). A further 30% of women had some form of tertiary education and 2% had undertaken postgraduate studies. Slightly fewer women in the sample had achieved tertiary education compared with national data.

Table 5: Demographic characteristics of sample compared with State or National populations

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Sample n (%)</th>
<th>State or National population data (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 20 years</td>
<td>27 (6.8)</td>
<td>6.5</td>
</tr>
<tr>
<td>20-24</td>
<td>91 (22.8)</td>
<td>19.1</td>
</tr>
<tr>
<td>25-29</td>
<td>128 (32)</td>
<td>32.6</td>
</tr>
<tr>
<td>30-34</td>
<td>101 (25.2)</td>
<td>27.6</td>
</tr>
<tr>
<td>35-39</td>
<td>45 (11.2)</td>
<td>12.2</td>
</tr>
<tr>
<td>40 years and over</td>
<td>6 (1.5)</td>
<td>1.9</td>
</tr>
<tr>
<td>Non-response</td>
<td>2 (.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>400</td>
<td></td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/Defacto</td>
<td>336 (84)</td>
<td>86.8</td>
</tr>
<tr>
<td>Single</td>
<td>51 (12.7)</td>
<td>11.7</td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>11 (2.7)</td>
<td>1.5</td>
</tr>
<tr>
<td>Non-response</td>
<td>2 (0.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>400</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/European</td>
<td>361 (91.4)</td>
<td>88</td>
</tr>
<tr>
<td>Aboriginal/Torres Strait Islander</td>
<td>3 (.8)</td>
<td>5.6</td>
</tr>
<tr>
<td>Asian</td>
<td>17 (4.3)</td>
<td>3.5</td>
</tr>
<tr>
<td>Other</td>
<td>14 (3.5)</td>
<td>2.9</td>
</tr>
<tr>
<td>Non-response</td>
<td>5 (1.3)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>400</td>
<td></td>
</tr>
<tr>
<td><strong>Occupational category</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager/administrator</td>
<td>21 (5.4)</td>
<td>4.1</td>
</tr>
<tr>
<td>Professional/associate professional</td>
<td>43 (11)</td>
<td>30.6</td>
</tr>
<tr>
<td>Trades person</td>
<td>10 (2.6)</td>
<td>2.9</td>
</tr>
<tr>
<td>Clerical/sales &amp; service</td>
<td>145 (37.2)</td>
<td>37.2</td>
</tr>
<tr>
<td>Production and transport</td>
<td>4 (1)</td>
<td>2.4</td>
</tr>
<tr>
<td>Home duties+</td>
<td>121 (31)</td>
<td>-</td>
</tr>
<tr>
<td>Student+</td>
<td>17 (4.4)</td>
<td>-</td>
</tr>
<tr>
<td>Unemployed+</td>
<td>29 (7.4)</td>
<td>-</td>
</tr>
<tr>
<td>Non-response</td>
<td>10 (2.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>
### Education*

<table>
<thead>
<tr>
<th>Level</th>
<th>Participants n (%)</th>
<th>Queensland Perinatal Data (1999) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary education</td>
<td>270 (68)</td>
<td>36.4</td>
</tr>
<tr>
<td>Tertiary study</td>
<td>119 (30)</td>
<td>36.4</td>
</tr>
<tr>
<td>Higher degree</td>
<td>8 (2)</td>
<td>5.3</td>
</tr>
<tr>
<td>Non-response</td>
<td>3 (.8)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td></td>
</tr>
</tbody>
</table>

* Queensland Health (1999) Perinatal data  
* Australian Bureau of Statistics (2000) data  
+ Category not included in ABS data (2000)

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**Parity and rates of operative birth**

Some obstetric characteristics were also collected and shown in Table 6. There was a slightly higher percentage of nulliparous women in the sample than in the State birthing population (Queensland Health Department, 2001). Rates of obstetric intervention were similar. Both groups had an overall caesarean section rate of 23% with slightly less elective caesarean sections for study participants compared with the population.

<table>
<thead>
<tr>
<th>Obstetric characteristic</th>
<th>Participants n (%)</th>
<th>Queensland Perinatal Data (1999) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nulliparity</td>
<td>194 (48.5)</td>
<td>39.7</td>
</tr>
<tr>
<td>Multiparity</td>
<td>206 (51.5)</td>
<td>60.3</td>
</tr>
<tr>
<td>Emergency caesarean section</td>
<td>44 (12.6)</td>
<td>10.1</td>
</tr>
<tr>
<td>Elective caesarean section</td>
<td>35 (10.1)</td>
<td>12.9</td>
</tr>
<tr>
<td>Forceps/vacuum extraction</td>
<td>29 (8.3)</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Comparisons between women lost to follow-up at Phase 2 and study participants

A total of 400 women participated in the first phase of the study but 52 women (13%) were lost to follow-up when contact was attempted in the postnatal period during Phase 2, within 72 hours postpartum. Women who could not be contacted following the birth were more likely to be unemployed \( \chi^2 (7) = 21.017, p = .005 \) and more likely to be nulliparous \( \chi^2 (1) = 5.357, p = .025 \). There were no statistically significant associations for age, marital status, ethnicity, level of education, depression scores (using EPDS or DASS-depression), anxiety, stress, or social support. It may be that unemployed
women having their first baby are more geographically mobile and therefore do not necessarily give birth at the hospital where they were recruited, or are more difficult to contact (i.e. changing telephone contact details).

**Reliability of instruments**

The validity of the three standardised instruments used in this study was reported in Chapter 4. The reliability attribute of homogeneity for the EPDS, DASS-21, and MSSS was tested using Cronbach’s alpha.

**Edinburgh Postnatal Depression Scale (EPDS)**

The Cronbach’s alpha value for the EPDS was calculated for each phase of the study. For this sample, the Cronbach’s alpha value for use of the EPDS with women at Phase 1 of the study (antenatally) was $r = .8465$. At four to six weeks postpartum (Phase 3) the Cronbach’s alpha value was $.9137$ and at three months postpartum (Phase 4) it was $.9194$.

**Depression, Anxiety and Stress Scale – 21 item (DASS-21)**

The reliability coefficient was calculated for each sub-scale of the DASS-21 at two time periods. The Cronbach’s alpha value for the DASS-depression sub-scale when it was used in pregnancy was $r = .8432$. At three months postpartum, the Cronbach’s alpha value for the DASS-depression scale was $r = .8968$.

The Cronbach’s alpha value for the DASS-Anxiety scale used during pregnancy was $r = .6984$. Removing item 2 would have made this scale more reliable for use with pregnant women. Item 2 is “I was aware of dryness of my mouth”. This is a common symptom in late pregnancy due to the physiological changes in pregnancy and not necessarily due to anxiety. The Cronbach’s alpha value for the DASS-anxiety scale used at three months postpartum was $r = .8429$. The acceptable internal consistency of the DASS-anxiety at three months postpartum adds weight to the suggestion the antenatal
measurement of anxiety was problematic due the physiological changes of pregnancy.

The Cronbach’s alpha value for the DASS-stress scale used in pregnancy was $r = .8528$. At three months postpartum the Cronbach’s alpha value for the DASS-stress scale was $r = .8871$.

The internal consistency for each of the DASS-21 sub-scales was good (> .8), except for the use of the DASS-anxiety sub-scale administered in late pregnancy (< .7).

**Maternity Social Support Scale (MSSS)**

The Cronbach’s alpha for the MSSS when used with participants in pregnancy was $r = .7366$. At four to six weeks postpartum, the Cronbach’s alpha was $r = .7041$ and at three months postpartum, the Cronbach’s alpha value was $r = .6919$.

Although the MSSS had acceptable levels of internal consistency when used antenatally and at four to six weeks postpartum, its reliability diminished at three months postpartum. At the three-month data collection point, removing Item 2 "My family is always there for me" would have improved the reliability of the scale somewhat ($r = .7049$). It seems that this scale does not distinguish well between perceived emotional support and the physical and practical support that new mothers may need.

**Depression, anxiety, stress and level of social support**

The results for the standardized instruments measuring depression, anxiety, stress and social support are presented in this section. Table 7 presents the population norms for each of the psychometric tests to facilitate the comparison with participants mean scores for these instruments at each of the three phases of data collection, which is presented in the text.
Table 7: Mean score for population data for EPDS, DASS-21 and MSSS

<table>
<thead>
<tr>
<th>Scale</th>
<th>Population norms</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPDS antenatally*</td>
<td>8.75</td>
</tr>
<tr>
<td>EPDS postpartum*</td>
<td>7.5</td>
</tr>
<tr>
<td>DASS-depression#</td>
<td>6.14</td>
</tr>
<tr>
<td>DASS-anxiety#</td>
<td>4.80</td>
</tr>
<tr>
<td>DASS-stress#</td>
<td>10.29</td>
</tr>
<tr>
<td>MSSS+</td>
<td>26.51</td>
</tr>
</tbody>
</table>

* (Green, 1998)  
# (Lovibond & Lovibond, 1995)  
+ (Webster et al., 2000a)

Phase 1

Depression measured using EPDS

Participants completed the Edinburgh Postnatal Depression Scale (EPDS) following recruitment in the last trimester of pregnancy. The EPDS mean for this sample was 8.21 out of a possible total score of 30 (sd 4.97, range 0-26). Forty-five women (11.25%) had a total EPDS score of greater than 14 (range 15-26). These figures compare well with antenatal EPDS scores reported by Green (1998) with a mean of 8.75 and 12% of women having scores above the cut-off for antenatal depression (i.e. >14).

Depression measured using the DASS-21 depression sub-scale

In Phase 1, participating women also completed the DASS-depression scale. Scores for this sample were comparable to population norms for women. In pregnancy the mean for this sample was 6.26 (sd 6.91, range 0-40), which is similar to the population norm of 6.14 (sd 6.92) (Lovibond & Lovibond, 1995). Fifty-seven women (14.5%) scored greater than 13 on DASS-depression (above mild).

Anxiety

The DASS–anxiety scores for this sample are comparable to population norms for women. The antenatal mean for this sample (mean = 6.24, sd = 6.03, range 0-40) is a little higher than the population norm for females (mean = 4.80, sd = 5.03) (Lovibond & Lovibond, 1995). Antenatally, 100 women (25.5%) had anxiety scores >9 (above mild).
Stress
The DASS–stress scores for this sample are similar to population norms for women. Antenatally, the mean was 11.05 (sd = 8.66, range 0-42), this is similar to the population norm for women (mean 10.29, sd = 8.16) (Lovibond & Lovibond, 1995). During pregnancy 60 women (15%) had DASS-stress scores greater the 18 (above mild).

Social support
The mean Maternity Social Support score for women in pregnancy was 26.24 (sd = 4.35, range 6-30), which is similar to the mean for the population attending the antenatal clinic at the Royal Women’s Hospital, Brisbane (mean = 26.51, sd 4.79) (Webster et al., 2000a).

Phase 3

Depression measured using EPDS
At 4–6 weeks postpartum, the mean EPDS score was 6.25 (sd = 5.71, range 0-29). This compares reasonably with the mean EPDS score at 6 weeks postpartum of 7.5 (sd=4.70) in a UK study (Green, 1998).

Fifty-four women (15.5%) had a total EPDS score of greater than 12 (range 13-29) which is on the upper boarder of the commonly reported rates of postnatal depression of between 10-16% (Boyce & Todd, 1992; Horan-Smith & Gullone, 1998; Webster et al., 2000b).

Social support
At four to six weeks postpartum the mean MSSS score had dropped slightly to 25.19 (sd = 4.43, range 9-30) which is slightly lower than the mean MSSS score for women attending the antenatal clinic at a major tertiary women’s hospital in Queensland (Webster et al., 2000a).
Phase 4

Depression symptoms using EPDS
At three months postpartum, the mean EPDS score was 4.04 (sd = 5.16, range 0-27), with 35 women (10.1%) scoring greater than 12. This is a significant drop in both the mean score and the percentage of women scoring above the cut-off, however the figure of 10.1% is still within the reported range for postnatal depression (e.g. Horan-Smith & Gullone, 1998).

DASS-depression
At three months, the mean DASS-depression score for participants was 4.18 (sd = 6.86, range 0-34), which is lower than the mean for the female population (mean 6.14, sd 6.92) (Lovibond & Lovibond, 1995). At three months postpartum, 33 participants (9.5%) scored above mild (i.e. >13). The DASS-depression figures show a similar trend to the EPDS scores.

DASS-anxiety
At three months postpartum, the mean for women in the study was 1.7 (sd = 4.5, range 0-36), which is lower than the mean for the female population of 4.80 (sd = 5.03) (Lovibond & Lovibond, 1995). Postnatally, 16 women (4.6%) had anxiety scores above mild (i.e. >9).

DASS-stress
At three months postpartum, the DASS–stress scores for participants remained similar but slightly lower (mean = 7.73, sd = 8.42, range 0-42). The mean stress score for the female population is 10.29 (sd = 8.16) (Lovibond & Lovibond, 1995). At this stage 38 women (10.9%) had DASS–stress scores above mild (i.e. >18).

Social support
At three months postnatally, the mean MSSS score was stable at 25.45 (sd = 4.25, range 9-30) compared with the four to six week (Phase 2) score.
Comparisons between antenatal and postnatal data

Levels of depression for participants in this study fell within the range of postnatal depression consistently reported in other studies (Boyce & Todd, 1992; Webster et al., 2000a; Webster et al., 2000b). Both the EPDS and DASS-21 depression showed higher mean scores for depression antenatally than postpartum. Similarly, the mean score for anxiety and stress was higher in pregnancy than three months postpartum even though the level of social support decreased slightly over this time.

Table 8 provides an overview of the trend in mean scores for depression, anxiety, stress and social support from pregnancy to three months postpartum.

Table 8: Mean scores for depression, anxiety, stress and social support in pregnancy and postpartum

<table>
<thead>
<tr>
<th></th>
<th>Antenatal</th>
<th>Three months postpartum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression (EPDS)</td>
<td>8.21</td>
<td>4.04</td>
</tr>
<tr>
<td>Depression (DASS)</td>
<td>6.26</td>
<td>4.18</td>
</tr>
<tr>
<td>Anxiety (DASS)</td>
<td>6.24</td>
<td>1.7</td>
</tr>
<tr>
<td>Stress (DASS)</td>
<td>11.05</td>
<td>7.73</td>
</tr>
<tr>
<td>Social support (MSSS)</td>
<td>26.41</td>
<td>25.45</td>
</tr>
</tbody>
</table>

Homogeneity of control and intervention groups

Demographic characteristics for women in the control and intervention groups are shown in Table 9. There was no statistically significant difference between the control and intervention groups in terms of demographic characteristics, previous obstetric history, or obstetric interventions experienced during the current labour and birth. Similarly, an analysis of antenatal EPDS, DASS-21, and MSSS scores showed no statistically significant difference between control and intervention groups.
Table 9: Demographic characteristics of control and intervention groups

<table>
<thead>
<tr>
<th>Demographic characteristics</th>
<th>Control group</th>
<th>Intervention group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 20 years</td>
<td>6 (11.3)</td>
<td>3 (6)</td>
</tr>
<tr>
<td>20-24</td>
<td>13 (24.5)</td>
<td>9 (18)</td>
</tr>
<tr>
<td>25-29</td>
<td>18 (34)</td>
<td>16 (32)</td>
</tr>
<tr>
<td>30-34</td>
<td>7 (13.2)</td>
<td>15 (30)</td>
</tr>
<tr>
<td>35-39</td>
<td>8 (15.1)</td>
<td>5 (10)</td>
</tr>
<tr>
<td>40 years and over</td>
<td>1 (1.9)</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Total</td>
<td>53 (100)</td>
<td>50 (100)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
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</tr>
<tr>
<td>Married/defacto</td>
<td>45 (84.9)</td>
<td>43 (86)</td>
</tr>
<tr>
<td>Single</td>
<td>8 (15.1)</td>
<td>6 (12)</td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>-</td>
<td>1 (2)</td>
</tr>
<tr>
<td>Total</td>
<td>53 (100)</td>
<td>50 (100)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/European</td>
<td>48 (90.6)</td>
<td>48 (96)</td>
</tr>
<tr>
<td>Aboriginal/Torres Strait Islander</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Asian</td>
<td>1 (1.9)</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>3 (5.7)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>52 (98.1)</td>
<td>48 (96)</td>
</tr>
<tr>
<td>Occupational category</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager/administrator</td>
<td>5 (9.4)</td>
<td>6 (12)</td>
</tr>
<tr>
<td>Professional/associate professional</td>
<td>7 (13.2)</td>
<td>6 (12)</td>
</tr>
<tr>
<td>Trades person</td>
<td>1 (1.9)</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Clerical/sales &amp; service</td>
<td>17 (32.1)</td>
<td>20 (40)</td>
</tr>
<tr>
<td>Production &amp; transport</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Home duties</td>
<td>16 (30.2)</td>
<td>11 (22)</td>
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<td>Student</td>
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<td>Unemployed</td>
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<td>Total</td>
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<td>49 (98)</td>
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<td>Education</td>
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<tr>
<td>Secondary education</td>
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<td>31 (62)</td>
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<tr>
<td>Tertiary study</td>
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<td>Higher degree</td>
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<tr>
<td>Total</td>
<td>53 (100)</td>
<td>50 (100)</td>
</tr>
</tbody>
</table>

**Incidence of posttraumatic stress disorder**

Women were screened at the first postnatal interview to determine if they had experienced a distressing/traumatic birth. Criterion A from DSM-IV was used and women were asked if they had been fearful for their life or their baby’s life or if they or their baby would be seriously injured or permanently damaged. Of 348 women, 103 women (29.5%) reported a birth experience that met this criterion. At the four to six week data collection point 9.6% (n = 33) of
participants met the DSM-IV diagnostic criteria for acute post-traumatic stress disorder. At three months 3.5% (n = 12) of women met the DSM-IV diagnostic criteria for chronic posttraumatic stress disorder.

**Case reports of women with PTSD at three months**

The 12 women meeting the diagnostic criteria for PTSD at three months postpartum warrant some description in light of the factors associated with PTSD and the effect of the intervention. A short history of each woman’s birth experience is provided followed by an analysis of the differences between women in the intervention group and those in the control group. Women who seem to have been well antenatally and, following a traumatic birth, developed a PTSD profile, are distinguished from those women who seem to have been emotionally distressed antenatally and/or had ongoing complicating factors at three months postpartum.

**Sam (#24: intervention group)**

Sam was a young, single, primigravida. Antenatally, she scored 15/30 on the EPDS (depressed). Her score using the DASS-depression subscale was 22 (extremely severe depression), DASS-anxiety score was 20 (extremely severe anxiety) and DASS-Stress score was 34 (extremely severe stress). She had a score of 20 on the MSSS indicating medium social support. She was fearful for her baby during pregnancy because of early pregnancy drug use. She said, “I used to be a bit schizo – did drugs – speed, pot.”

Labour started spontaneously, on admission her membranes were artificially ruptured and after 12 hours of contractions a syntocinon infusion was commenced to augment labour. She was unhappy about the amount of information she was given about this. She felt frightened and the pain was much worse than she expected. During labour there was talk by the hospital staff of delivery by caesarean section but this did not eventuate. She felt that the midwife looking after her was “rough” and “rude” and did not keep her informed or involve her in decisions. For instance, on admission the midwife
was rough when she did the vaginal examination and Sam’s perception was that she said scornfully “you are only 2cm” (cervical dilatation) and proceeded to artificially rupture her membranes without giving her any information or seeking consent. Rather than being encouraging and reassuring she felt that the midwife was judgemental, coldly clinical, not supportive, not concerned or sympathetic and she felt patronised. All this added to her fear. Near the time of the birth she reported that the pain was extreme and that “no one was helping me”. She said the midwife’s attitude conveyed to her that she was “getting what I deserved” and that the pain would “teach me a lesson.” Whilst still in the labour ward following the birth, Sam reported that the doctor repairing the perineum said “It (her perineum) is unrecognisable, I don’t know what is what”. It is possible that Sam had a PTSD symptom profile complicated by complex social and psychological needs and perceived betrayal by caregivers.

Ruth (#165: intervention group)
Ruth was married and having her first child. Antenatally, she scored 3/30 on the EPDS (not depressed). Her score using the DASS-depression subscale was 0 (normal), DASS-anxiety score was 0 (normal) and DASS-Stress score was 2 (normal). She had a score of 30 on the MSSS indicating adequate social support.

Labour was induced with prostaglandin gel because she had a slightly raised blood pressure and the medical staff suspected a “big baby”. Next morning at 6:30am she was taken to the labour ward and her membranes were artificially ruptured and a syntocinon infusion was commenced. Labour progressed and at 1:30pm she had an epidural inserted after waiting “for quite a bit” for the anaesthetist. At 5pm her cervix was fully dilated and at 7pm taken to theatre for a vacuum extraction. Her baby was finally delivered at 8:50pm. He weighed 5kg, needed resuscitation and had massive bruising on his head. He was admitted to the neonatal nursery and became jaundiced and needed phototherapy. He was in the neonatal nursery for 10 days. She found the neonatal nursery staff rude and often excluding and had difficulty getting a
doctor to come and talk to her and her husband; “all we got were mixed messages”.

She said “The whole thing was very frightening. I was frightened for him (baby), upset about the jaundice, the isolette, and the feeding problems. I had heaps of stitches, bad separation of my tummy muscles and am still damaged internally.” Ruth described the pain she experienced after the birth by haemorrhoids as “terrible”. She felt that they should have been more aware of his size and made the decision to deliver sooner. Ruth’s PTSD symptom profile seems to have been compounded by ongoing physical problems.

**Nadine (#269: intervention group)**

Nadine was married with one child; a 3 year old. Antenatally, she scored 12/30 on the EPDS (intermediate). Her score using the DASS-depression subscale was 2 (normal), DASS-anxiety score was 6 (normal) and DASS-Stress score was 14 (normal). She had a score of 29 on the MSSS indicating adequate social support. She had previously experienced a normal birth and uncomplicated obstetric history.

Nadine described her labour as a “disaster”. She experienced induction of labour for pregnancy-induced hypertension at 37 weeks gestation with prostaglandin gel that was administered twice. She wanted to have an epidural inserted and then commence the syntocinon infusion as she had experienced this with her first baby and it had worked well. Staff disagreed with this option and put up the syntocinon infusion first. Once labour contractions were establishing the registrar performed a vaginal examination and reported that her cervix was 9 cm. dilated and again told her to “just hang on” and would not organise for her to have an epidural. One and a half hours later the baby was still not born and the midwife performed another vaginal examination and found that her cervix was only 4 cm. dilated. At this time an epidural was organised. It was inserted but was only partially effective. There was still a window of pain so the dose was increased which caused her blood pressure to drop and repeated loss of consciousness. She overheard the
midwife calling urgently for the doctor. Even though she blacked out repeatedly it seemed that nobody was doing anything about it. Both she and her husband were very frightened. Eventually other intravenous drugs were administered to raise her blood pressure by removing the effect of the epidural. She resorted to using nitrous oxide for pain relief, which she used for the next two hours until the birth of her baby. Just prior to the birth a male midwife came into the room to see the birth. This annoyed her as no one had asked her permission or told her he would come in. She found it embarrassing especially as she was lying on her side due to the induced hypotension and was “all exposed”.

Nadine had seven vaginal examinations, she was unhappy about what was done for pain relief and thought the labour pain was much worse than she expected. At four to six weeks postpartum, the baby had a “funny cry” and she went to see a paediatrician. By three months, the baby had a number of unusual behaviours and they were questioning whether he might have cerebral palsy. She felt that the doctor was incompetent and that the drastic fall in blood pressure may have caused, or contributed to, her baby’s problems. She felt that the staff didn’t listen to her or abide by her wishes in terms of the sequence of events at the time of induction.

It seems that she was an emotionally well woman antenatally who experienced a traumatic birth and has ongoing fears and stresses due to health concerns for her baby as a consequence of the birth. Nadine’s PTSD symptom profile seems to have been complicated by ongoing concerns and anxiety for her baby.

**Anne (#31:control group)**

Anne was married with a 2-year-old child. Antenatally, she scored 17/30 on the EPDS (depressed). Her score using the DASS-depression subscale was 26 (extremely severe depression), DASS-anxiety score was 22 (extremely severe anxiety) and DASS-Stress score was 32 (severe stress). She had a score of 24 on the MSSS indicating medium social support.
Her first child was born by emergency caesarean section for failure to progress and she had an elective caesarean section at term in this pregnancy because of fear of experiencing another emergency caesarean. At birth, the cord was round the baby’s neck, he had retained fetal lung fluid and was admitted to the neonatal nursery. He needed an intravenous infusion and intravenous antibiotics. She couldn’t hold him. She said, “He almost died. I thought an elective caesarean would give me control”. It may be that Anne’s previous traumatic birth impacted on her current birth experience.

**Lorrie (#33: control)**

Lorrie was married with two children. Antenatally, she scored 18/30 on the EPDS (depressed). Her score using the DASS-depression subscale was 22 (severe depression), DASS-anxiety score was 24 (extremely severe anxiety) and DASS-Stress score was 26 (severe stress). She had a score of 23 on the MSSS indicating medium social support.

She spoke of being depressed after the birth of her second baby (but not after the first birth, which was uncomplicated). During the second birth she was “refused pain relief”, “treated badly”, “scared” and her perineum “tore badly”. Her symptoms of emotional distress “came back” when she became pregnant again (in current pregnancy). During this pregnancy, there were concerns about the baby’s size. At 36 weeks gestation, during a routine antenatal appointment the doctor thought the baby might be “too small” and she underwent an ultrasound scan. Following the scan she reported that staff said they “might deliver him soon”, but this decision was changed later that same day. Two days later she went to hospital for reduced fetal movements. She was hospitalised for 4 days and a caesarean section was discussed but finally ruled out. A few weeks later she went into spontaneous labour at term, labour was augmented by artificial rupture of membranes and a syntocinon infusion. Although she had an epidural she still experienced some pressure, commonly associated with second stage. When the midwife asked her to push she said she “panicked” and felt she could not do it. She felt frightened
and helpless and resisted any urge to push or bear down. As the staff prepared for a vacuum extraction the baby was born normally despite her efforts in holding back. For Lorrie too, it seems that a previous traumatic birth impacted on the subsequent birth.

**Sue (#58: control group)**

Sue was married and having her first baby. Antenatally, she scored 5/30 on the EPDS (not depressed). Her score using the DASS-depression subscale was 0 (normal), DASS-anxiety score was 4 (normal) and DASS-Stress score was 4 (normal). She had a score of 29 on the MSSS indicating adequate social support.

Her blood pressure was elevated at term and she was admitted to hospital for induction the next morning. Labour started that night at 3am. An electronic monitor was applied at 5am while she was still in the ante-postnatal ward. She asked staff to call her husband on three occasions but was dismissed with comments such as, “Oh, let him sleep, he’ll have a big day”. At 6am Sue was experiencing mild contractions when the doctor came to review the results from the electronic monitor. Within five minutes the doctor had ordered a caesarean section. She was taken quickly to the operating theatre and although she asked if they could wait until her husband arrived from home (maximum 10 minutes as he was on his way) this was refused. These actions led her to believe that her baby was very distressed. Staff did not explain the caesarean section or why it was needed, they couldn't find a vein to site the intravenous cannula and the anaesthetist made several attempts to site the epidural. She was concerned about the competence of the staff. She felt that she received poor care especially from the doctor and reported feeling very frightened for herself and her baby. Her baby was born in good condition, which made her doubt the need for such a rush. Sue seems to have been well antenatally but experienced a traumatic birth leading to a PTSD symptom profile.
Kate (#95: control group)
Kate was married and having her first baby. Antenatally, she scored 13/30 on the EPDS (marginal). Her score using the DASS-depression subscale was 16 (moderate depression), DASS-anxiety score was 4 (normal) and DASS-Stress score was 26 (severe stress). She had a score of 28 on the MSSS indicating adequate social support.

After being in latent phase labour for a day the doctors decided to induce labour the next day but changed this decision because the labour ward was busy. Four days later Kate had her membranes ruptured and meconium liquor was noted and an electronic monitor was used. She had an epidural that was partially effective and she still experienced a “window” of pain. The strength and frequency of the contractions deteriorated after the epidural and she required a syntocinon infusion. After 13 hours of labour the fetal heart rate decelerated. Kate was scared and she said that during labour she wanted more information on “just about everything”. She said the room filled up with “too many people” as they prepared for a vacuum extraction. She felt “out of control” and “helpless”. An episiotomy was performed; the baby was born by vacuum extraction and required resuscitation. Meconium aspiration syndrome was diagnosed and the baby was admitted to the neonatal nursery where he was ventilated and had “tubes in his throat and in his stomach, and intravenous phenobarb and fluids”. Kate was prevented from holding her baby until day four postpartum and he remained in the neonatal nursery for two weeks. She feels angry with the hospital staff and believes that if she was induced when it was first planned her baby might not have had the complications. Although Kate was stressed antenatally, and possibly depressed it seems she had a PTSD symptom profile that was predominantly resulting from the current birth experience.

Rachael (#209: control group)
Rachael was married and having her first baby. Antenatally, she scored 2/30 on the EPDS (not depressed). Her score using the DASS-depression subscale was 4 (normal), DASS-anxiety score was 0 (normal) and DASS-
Stress score was 2 (normal). She had a score of 29 on the MSSS indicating adequate social support.

Rachael was induced with prostaglandin gel because she was 10 days past her expected date of delivery. The next morning she was taken to labour ward, her membranes were ruptured and later a syntocinon infusion was commenced. Labour progressed and she had a normal birth but also had a perineal and labial tear. She waited “a long time” to be sutured. Within an hour of returning to the postnatal ward she was in excruciating pain. A haematoma had formed on her labia and she was taken to theatre. She had a general anaesthetic, the haematoma excavated and her perineal and labial wounds resutured. She was frightened about the surgery and scared about permanent injury “You worry about your own bits when they have been sutured for an hour”. Wound healing afterwards took a long time. In the postnatal period she had problems with a varicosity pressing on the Bartholins gland and saw a gynaecologist who said he wouldn’t have sutured the labia as suturing caused the haematoma. Rachael seems to have been well antenatally but experienced a traumatic birth leading to a PTSD symptom profile.

Lyn (# 218: control group)
Lyn was married and having her first baby. Antenatally, she scored 5/30 on the EPDS (not depressed). Her score using the DASS-depression subscale was 10 (mildly depressed), DASS-anxiety score was 6 (normal) and DASS-Stress score was 16 (mildly stressed). She had a score of 29 on the MSSS indicating adequate social support.

She described her labour as “terrible”. At 1:30am her membranes ruptured spontaneously and she went to hospital by 4:00am. On examination her cervix had dilated 1 cm. Labour progressed fairly slowly, she had pethidine and later an epidural. After pushing for 2 hours, and an 18-hour labour overall, she was delivered by vacuum extraction. Her baby needed resuscitation and stitches “took one and a half hours”. She was left reeling
after the birth. She was taken to the postnatal ward where she slept for four hours. A crying baby woke her. She was confused and didn’t know where she was or what had happened. She had no sensation in her bladder and wet the bed. The postnatal staff were condescending, and she received virtually no help with feeding or baby care. She felt like the staff just expected her to “get on with it” and “stop making a fuss”. She reported terrible postnatal pain “it felt like my insides were going to drop out” resulting from the vacuum extraction and stitches. Lyn seems to have been well antenatally but experienced a traumatic birth leading to a PTSD symptom profile.

Emma (#253: control group)

Emma was married and having her first baby. Antenatally, she scored 10/30 on the EPDS (not depressed). Her score using the DASS-depression subscale was 2 (normal), DASS-anxiety score was 2 (normal) and DASS-Stress score was 8 (normal). She had a score of 27 on the MSSS indicating adequate social support.

When she was 38 weeks pregnant she woke feeling “all hot and cold” and had reduced fetal movements, even when she did the usual things to get her fetus to kick such as lying on her back. She rang the hospital and was advised to come straight to hospital. On admission the electronic fetal heart monitor tracing was non-reassuring and an emergency caesarean was arranged under spinal anaesthetic. The spinal anaesthetic was not completely successful and she needed to be given a general anaesthetic once surgery had started. At this point her partner had to leave the theatre. She was very distressed. The baby was in the neonatal nursery for 36 hours and needed a blood transfusion and “lots of intervention”. She said, “I didn’t cope with him not being with me”. The neonatal nursery staff were “difficult”. At four to six weeks her baby was well. Emma seems to have been well antenatally but experienced a traumatic birth leading to a PTSD symptom profile.
Kathy (#345: control group)
Kathy was married and having her first baby. Antenatally, she scored 5/30 on the EPDS (not depressed). Her score using the DASS-depression subscale was 12 (mild), DASS-anxiety score was 2 (normal) and DASS-stress score was 10 (normal). She had a score of 24 on the MSSS indicating medium social support.

At 38 weeks gestation her baby was breech and she underwent external cephalic version, which was successful. Labour started spontaneously, she experienced a long latent phase, had her membranes artificially ruptured and an epidural inserted. The contractions became less effective and a syntocinon infusion was started and an electronic fetal monitor applied. When second stage progressed slowly they planned to deliver the baby by forceps. This frightened Kathy because of a bad outcome for one of her relatives from the use of forceps. Against her wishes they proceeded to deliver her baby using forceps even though she would have preferred them to use a vacuum extractor. She felt angry with this. The birth was very painful because they had turned the epidural infusion down to facilitate effective pushing and didn't increase it again for the forceps delivery. Kathy seems to have been well antenatally but experienced a traumatic birth leading to a PTSD symptom profile.

Joy (#357: control group)
Joy was married and having her fourth baby. Antenatally, she scored 15/30 on the EPDS (depressed). Her score using the DASS-depression subscale was 4 (normal), DASS-anxiety score was 0 (normal) and DASS-stress score was 10 (normal). She had a score of 30 on the MSSS indicating adequate social support.

Her third baby was born by emergency caesarean section for a brow presentation. In the current pregnancy she went into spontaneous labour, her membranes were artificially ruptured but she was not given any information
on this procedure. She used nitrous oxide for pain relief and after less than 12 hours of labour the doctors decided to perform a caesarean section. She felt that on several occasions decisions were made against her wishes. She reported that staff didn’t keep her informed, she felt pressured to have the baby quickly and her labour was taken over by strangers and machines. She said, “I just don’t understand how they could know I couldn’t have the baby [normally]. I felt the head was just there”. She felt frightened and helpless. She said, “I just wished they would stop and listen to me” and “the experience last time didn’t help but I wasn’t prepared for they way they just sort of ignored I was there and went ahead anyway”. Joy’s birth may have been complicated by a previous traumatic birth or at least a birth that was distressing in some way.

Analysis of case studies

The women’s stories portrayed in the case studies reflect a sense of betrayal by their caregivers in some way. Often the sense of betrayal was related to a perception of poor technical care as well as perceived inappropriate or inadequate communication in most cases.

The three women in the intervention group with PTSD at three months postpartum all had factors other than the trauma of the birth experience impacting on their recovery. One woman had complex social, psychological needs predating her traumatic birth experience, another woman had ongoing fears and anxieties regarding the well-being of her baby that were based on medical follow-up and suggestive of cerebral palsy and the third woman had ongoing physical problems which she felt were attributable to the mismanagement of the birth. In contrast, several of the women in the control group had what seemed to be PTSD uncomplicated by pre-existing antenatal emotional distress or ongoing health concerns postpartum. Five women all seemed to be well antenatally, experienced a traumatic birth and, from a physical perspective, both they and their baby had recovered by three months postpartum. A sixth woman may also have had uncomplicated PTSD.
although she was stressed antenatally. For three women, their previous birth experiences seemed to have impacted on the current birth experiences.
CHAPTER 6

Results: Factors associated with PTSD and effect of intervention

This chapter presents the analysis of the factors associated with PTSD at four to six weeks and three months postpartum and the effect of the intervention on the incidence of PTSD and PTSD symptoms. Following this the effect of the intervention on the other outcome measures of depression, anxiety, stress, feelings of self-blame and confidence regarding a future pregnancy is also presented. Participants’ perceptions of the intervention are also reported.

Antenatal factors (Phase 1) associated with PTSD

Demographic factors

The demographic variables of marital status, education, occupation and ethnicity were not significantly associated with the development of PTSD at four to six weeks postpartum or three months postpartum. There was no statistically significant association between social support as measured by the MSSS and the development of PTSD at four to six weeks or three months.

Age was a statistically significant factor at four to six weeks [$\chi^2 (5) 9.354, p = .048$] but not at three months postpartum [$\chi^2 (5) 7.914, p = .232$]. Women in the younger age groups, under 20 years old and 20-24 years old, were more likely to develop PTSD at four to six weeks postpartum.

Parity was statistically significant at four to six weeks [$\chi^2 (1) 9.874, p = .001$] but not at three months postpartum [$\chi^2 (1) 1.998, p = .132$]. Women having their first baby were more likely to score positive for PTSD at four to six weeks.
Obstetric history

Previous obstetric events examined for their relationship to PTSD at four to six weeks and three months postpartum were previous caesarean section, forceps/vacuum, stillbirth, abortion/miscarriage, haemorrhage, and premature birth. None of these variables were statistically associated with PTSD at four to six weeks or three months postpartum.

Psychological factors

As in previous studies the association between existing psychological states and the development of PTSD was examined. The psychological states of depression, anxiety and stress were measured antenatally using the EPDS and DASS. Using the cut-off scores established in the validation studies of these instruments, a calculation of the relationship between antenatal psychological variables and a PTSD symptom profile was undertaken using a Chi-square analysis. Results are shown in Table 10.

Table 10: Association between antenatal depression, anxiety and stress and PTSD at 4-6 weeks and 3 months postpartum

<table>
<thead>
<tr>
<th>Psychological variable</th>
<th>4-6 weeks postpartum</th>
<th>3 months postpartum</th>
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</thead>
<tbody>
<tr>
<td>EPDS</td>
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<td>.144</td>
</tr>
<tr>
<td>DASS-depression</td>
<td>.595</td>
<td>.074</td>
</tr>
<tr>
<td>DASS-anxiety</td>
<td>.387</td>
<td>1.00</td>
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<tr>
<td>DASS-stress</td>
<td>.002*</td>
<td>.079</td>
</tr>
</tbody>
</table>

* = Statistically significant association

The antenatal EPDS scores of >14 did not show a statistically significant association with PTSD at four to six weeks [$\chi^2 (1) .612, p = .557$] nor at three months postpartum [$\chi^2 (1) 2.309, p = .144$]. Similarly, antenatal DASS-depression scores >13 did not show a statistically significant association with PTSD at four to six weeks [$\chi^2 (1) .576, p = .595$] or at three months postpartum [$\chi^2 (1) 3.763, p = .074$]. Similarly, the antenatal DASS-anxiety scores of >9 (i.e. above mild) did not show a statistically significant association to PTSD at four to six weeks [$\chi^2 (1) .898, p = .387$] or at three months [$\chi^2 (1) .002, p = 1.00$]. Antenatal DASS-stress scores of >18 (i.e. above mild) did show a statistically significant association to PTSD at four to
six weeks \( \chi^2 (1) 11.657, p = .002 \), but not at three months \( \chi^2 (1) 3.586, p = .079 \).

**Social support**

Antenatal MSSS scores were grouped in three categories: low support (<19), medium support (19-24), and adequate support (>24). Analysis of these groups showed that women with less social support were more likely to meet the diagnostic criteria for PTSD at four to six weeks \( \chi^2 (2) 10.735, p = .005 \). Antenatal social support as measured by the MSSS, did not show a statistically significant relationship to a PTSD symptom profile at three months postpartum \( \chi^2 (2) 2.962, p = .208 \).

Two items on the MSSS measured possible indicators of domestic violence (Webster et al., 2000a). The items were “There is conflict with my husband/partner” and “I feel controlled by my husband/partner”. Analysis of these items did not show a statistically significant relationship to a PTSD symptom profile at four to six weeks postpartum or three months postpartum. The results for the item “There is conflict with my husband/partner” was \( \chi^2 (4) 5.363, p = .226 \) at four to six weeks postpartum and \( \chi^2 (4) 1.616, p = .822 \) at three months postpartum. For the item “I feel controlled by my husband/partner” the result at four to six weeks postpartum was \( \chi^2 (4) 2.503, p = .576 \) and at three months postpartum was \( \chi^2 (4) 1.200, p = .803 \).

**Antenatal factors associated with a PTSD symptom profile at four to six weeks and three months postpartum for control group participants**

Although the intervention and control groups were homogenous as assessed by the variables reported in Chapter 5, an analysis was conducted to determine if there were any differences in the antenatal variables associated with control group participants only. This was to rule out the possibility of the intervention selectively benefiting people with certain characteristics and thereby giving a false picture of the antenatal antecedents to PTSD. The only two antenatal variables associated with PTSD at four to six weeks postpartum
were age $\chi^2 (5) 16.411, p = .014$ and parity $\chi^2 (1) 6.433, p = .017$. Levels of stress and social support were not associated with PTSD for women in the control groups. None of the antenatal variables were associated with PTSD at three months postpartum. This difference can be accounted for by the vagaries of randomisation.

**Intrapartum and postpartum factors and PTSD at four to six weeks**

**Obstetric factors**

Thirty-five women had an elective caesarean section (10.1%), six of these were in the control group, three were in the intervention group and the remaining 26 were in the normal care group. Forty-four women experienced an emergency caesarean section (12.6%), 12 of these women were in the control group and 20 women were in the intervention group. A further 29 women (7.3%) were delivered by forceps or vacuum extraction, 11 of these women were in the control group and 12 women were in the intervention group. One hundred and ninety-three women (48.3%) reported having an epidural either for the birth or immediately afterwards. Ninety-nine women (24.8%) reported that their baby needed resuscitation at the time of birth, which involved having the baby taken to a resuscitation trolley. The obstetric variables associated with the development of PTSD at four to six weeks are shown in Table 11.

<table>
<thead>
<tr>
<th>Obstetric variable</th>
<th>No. of women</th>
<th>$\chi^2$</th>
<th>df</th>
<th>significance</th>
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<td>Syntocinon infusion to augment labour</td>
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<td>Connected to monitor</td>
<td>254</td>
<td>16.792</td>
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<td>.001</td>
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<td>Lengthy labour</td>
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<td>5</td>
<td>&lt;.001</td>
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<tr>
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<td>.010</td>
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<td>Epidural in labour</td>
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<td>.002</td>
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<tr>
<td>Epidural at birth or immediately afterwards</td>
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<td>14.216</td>
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<td>16.714</td>
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</tr>
<tr>
<td>Emergency caesarean section</td>
<td>44</td>
<td>22.929</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Forceps/vacuum</td>
<td>28</td>
<td>8.243</td>
<td>1</td>
<td>.011</td>
</tr>
<tr>
<td>Baby needed resuscitation</td>
<td>99</td>
<td>22.019</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Complication for baby</td>
<td>39</td>
<td>9.046</td>
<td>1</td>
<td>.007</td>
</tr>
<tr>
<td>Postpartum complication for mother</td>
<td>48</td>
<td>29.601</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>
Obstetric factors assessed but not associated with PTSD at four to six weeks included elective caesarean section, whether labour was induced, the method of induction (e.g. prostaglandin gel or artificial rupture of membranes), artificial rupture of membranes (for augmentation not induction), haemorrhage after the birth, whether sutures were required and the level of pain whilst having perineal sutures.

**Satisfaction with care**

Certain aspects of satisfaction with care were also measured in this study. Overall, most women were satisfied with the care they received, however, there are some areas with significant percentages of women expressing dissatisfaction. For instance, 294 women (85%) felt that the midwives were “very helpful” or “fairly helpful”, and 119 women (34.9%) reported that the doctor was “very helpful” or “fairly helpful” (118 (34.6%) reported that the doctor was not present). In relation to their overall care, 256 women (75.5%) said their care was “good” or “very good”. However, 89 women (25.7%) felt they sometimes or often wanted more information while in labour, 98 women (25.5%) felt they were not kept fully informed about what was happening and 81 women (23.5%) felt that, to some extent, the doctors or midwives made decisions without taking their wishes into account. When asked if the doctors or midwives could have done anything differently or better, 167 women (49%) responded “yes, definitely” or “yes, possibly”. Women were asked if they had talked with the hospital staff about how they felt about their birth experience. Only 13.7% of women (n = 48) reported that they had an opportunity to talk to staff about their feelings regarding the birth. When asked if they would have liked to talk more to someone about how they felt about the birth; 112 women (33.8%) said “yes, definitely” or “yes, possibly”.

The aspects of satisfaction with care assessed in the present study were categorised as *feeling informed, opportunities to talk about feelings, being involved in decisions, and feeling supported and/or cared for*. There was a consistent and statistically strong relationship between variables measuring
these aspects and PTSD at four to six weeks with women feeling poorly informed, not able to share their feelings about the birth, not being involved in decisions and feeling unsupported. The association between these satisfaction variables and the development of PTSD at four to six weeks are shown in Table 12.

Table 12: Satisfaction variables associated with PTSD at 4-6 weeks

<table>
<thead>
<tr>
<th>Aspect of satisfaction with care</th>
<th>χ²</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall poor quality of care</td>
<td>49.09</td>
<td>4</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Unhelpful midwives</td>
<td>34.57</td>
<td>5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Unhelpful doctors</td>
<td>14.31</td>
<td>5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Wanted something done differently</td>
<td>24.96</td>
<td>2</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Wanted to talk more to someone about the birth</td>
<td>33.46</td>
<td>2</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Not always kept informed</td>
<td>38.04</td>
<td>5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Decisions made without taking wishes into account</td>
<td>53.87</td>
<td>5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Felt pressured to have baby quickly</td>
<td>47.04</td>
<td>5</td>
<td>.009</td>
</tr>
<tr>
<td>Felt labour was taken over by strangers and/or machines</td>
<td>42.46</td>
<td>5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Doctors &amp; midwives not encouraging/ reassuring</td>
<td>45.59</td>
<td>5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Wanted more information whilst in labour</td>
<td>52.88</td>
<td>2</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

A further specific variable related to the provision of information was associated with PTSD at four to six weeks. Participants who were unhappy with the amount of information regarding induction of labour were more likely to develop PTSD at four to six weeks [$\chi^2 (3) 23.507, p < .001$].

Feelings during labour

During the first postnatal interview women were asked about their feelings during labour (more than one response could be identified): 122 women (30.5%) reported that they felt worried, anxious or frightened when labour first began; 146 women (44%) reported that they felt confident in labour. Whereas 49 women (14.8%) felt out of control; 124 (37.3%) acknowledged that they felt frightened; and 57 women (17.2%) said that they felt helpless.

Women who did not feel confident in labour were more likely to develop PTSD at four to six weeks. Similarly, participants who felt a lack of control, expressed as not feeling “in control” or that they felt “out of control” were more likely to meet the diagnostic criteria for PTSD at four to six weeks. Women who felt worried, frightened, or anxious when labour first began, or frightened
in labour generally, were also more likely to develop PTSD at this time. A feeling of helplessness was also associated with PTSD at this time. Table 13 shows the association between these variables and a PTSD symptom profile at four to six weeks.

Table 13: Feelings during labour and PTSD at 4-6 weeks

<table>
<thead>
<tr>
<th>Feelings/thoughts during labour</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worried, frightened or anxious when labour first began</td>
<td>11.079</td>
<td>3</td>
<td>.001</td>
</tr>
<tr>
<td>Not confident in labour</td>
<td>23.277</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Out of control</td>
<td>5.075</td>
<td>1</td>
<td>.030</td>
</tr>
<tr>
<td>Frightened</td>
<td>41.635</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Not in control*</td>
<td>10.019</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>Helpless</td>
<td>5.784</td>
<td>1</td>
<td>.029</td>
</tr>
</tbody>
</table>

* Questionnaire wording changed to indicate the association between not feeling "in control" and PTSD

Social support

Social support as measured by the Maternity Social Support Scale at four to six weeks showed a statistically significant relationship to PTSD at four to six weeks postpartum. Those women with the least social support at this time were more likely to meet the diagnostic criteria for PTSD at four to six weeks postpartum [$\chi^2 (2) 10.640, p = .006$].

Depression

Using EPDS, women with scores of >12 (depressed) at four to six weeks postpartum showed a statistically significant association with a PTSD symptom profile at four to six weeks postpartum [$\chi^2 (1) 41.076, p <.001$].

Regression analysis of factors related to PTSD

Based on the findings of previous research (Creedy et al., 2000), the findings of the present study on significant factors associated with the development of a PTSD symptoms profile, and outcomes from interviews with women in this study, certain obstetric and satisfaction with care variables were chosen to enter into a stepwise multiple regression. These variables: postpartum complication for the mother, satisfaction with overall care, parity, the DASS-stress score during pregnancy, emergency caesarean section, forceps and/or vacuum extraction, and a diagnosis for the baby either during pregnancy or
following birth were entered into a stepwise multiple regression with the number of trauma symptoms (using the PTSD total symptom score) as the dependent variable. The results of this analysis are shown below in Table 14.

Table 14: Association between birthing events and PTSD symptoms

<table>
<thead>
<tr>
<th>Variable</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postpartum complication for mother</td>
<td>.335</td>
<td>7.626</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Satisfaction with overall care</td>
<td>-.219</td>
<td>-4.917</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Parity</td>
<td>-.127</td>
<td>-2.785</td>
<td>.006</td>
</tr>
<tr>
<td>DASS-stress score during pregnancy</td>
<td>.188</td>
<td>4.425</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Emergency caesarean section</td>
<td>.189</td>
<td>4.038</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Forceps &amp;/or vacuum extraction</td>
<td>.163</td>
<td>3.584</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Diagnosis for the baby in pregnancy or after birth</td>
<td>.134</td>
<td>3.068</td>
<td>.002</td>
</tr>
</tbody>
</table>

Five of the seven variables were statistically significant with the development of an acute PTSD symptom profile at the $p < .001$ level. The other two factors, parity, ($p = .006$) and diagnosis for the baby during pregnancy or after the birth ($p = .002$), were somewhat less consistent than the other five factors, but remained statistically significant. These seven factors accounted for approximately 43% ($r^2 = .429$) of variance in the development of acute trauma symptoms following childbirth found in this sample.

**Intrapartum and postpartum factors and PTSD at three months**

**Obstetric factors**

At three months postpartum, some variables that were associated with PTSD at four to six weeks were no longer associated with PTSD, specifically whether participants experienced electronic fetal monitoring, the number of vaginal examinations experienced, emergency caesarean section and general anaesthetic. Artificial rupture of membranes for augmentation of labour was associated with PTSD at three months, but not at four to six weeks. The other obstetric factors measured but not statistically significantly associated with PTSD at three months were the same as at four to six weeks. These were elective caesarean section, whether labour was induced, the method of induction (e.g. prostaglandin gel or artificial rupture of membranes), haemorrhage after the birth, whether sutures were required and the level of
pain during perineal suturing. Obstetric factors associated with a PTSD symptom profile at three months are shown in Table 15.

Table 15: Obstetric variables associated with PTSD at 3 months postpartum

<table>
<thead>
<tr>
<th>Obstetric variable</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artificial rupture of membranes for augmentation</td>
<td>5.296</td>
<td>1</td>
<td>.034</td>
</tr>
<tr>
<td>Syntocinon infusion</td>
<td>5.940</td>
<td>1</td>
<td>.023</td>
</tr>
<tr>
<td>Lengthy labour</td>
<td>11.584</td>
<td>5</td>
<td>.042</td>
</tr>
<tr>
<td>Epidural in labour</td>
<td>4.718</td>
<td>1</td>
<td>.039</td>
</tr>
<tr>
<td>Epidural at birth or immediately afterwards</td>
<td>7.5330</td>
<td>1</td>
<td>.007</td>
</tr>
<tr>
<td>General anaesthetic</td>
<td>6.441</td>
<td>1</td>
<td>.050</td>
</tr>
<tr>
<td>Emergency caesarean section</td>
<td>1.676</td>
<td>1</td>
<td>.187</td>
</tr>
<tr>
<td>Forceps/vacuum</td>
<td>10.034</td>
<td>1</td>
<td>.013</td>
</tr>
<tr>
<td>Baby needed resuscitation</td>
<td>5.260</td>
<td>1</td>
<td>.029</td>
</tr>
<tr>
<td>Complication for baby</td>
<td>11.378</td>
<td>1</td>
<td>.006</td>
</tr>
<tr>
<td>Postpartum complication for mother</td>
<td>13.394</td>
<td>1</td>
<td>.003</td>
</tr>
</tbody>
</table>

Satisfaction with care

At three months the pattern of association between the variables was a little different from four to six weeks postpartum. The variables, “doctors and midwives always kept me informed” and “felt labour was taken over by strangers and/or machines” did not show a statistically significant result. The variable indicating unhappiness about the amount of information provided regarding the induction of labour no longer showed a statistically significant association with PTSD at three months. The variables which addressed satisfaction with doctors and midwives, overall satisfaction, whether they would have liked anything done differently, whether they wanted more information and the desire to talk more to someone about the birth remained statistically associated with PTSD at three months. In this way the overall picture is similar, with women who met the diagnostic criteria for PTSD at three months feeling poorly informed, not able to share their feelings about the birth, not being involved in decisions and feeling unsupported. The association between the variables measuring satisfaction with care and a PTSD symptom profile at three months are shown in Table 16.
Table 16: Satisfaction variables associated with PTSD at 3 months postpartum

<table>
<thead>
<tr>
<th>Aspect of satisfaction with care</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall poor quality of care</td>
<td>17.290</td>
<td>4</td>
<td>.019</td>
</tr>
<tr>
<td>Unhelpful midwives</td>
<td>7.974</td>
<td>5</td>
<td>.035</td>
</tr>
<tr>
<td>Unhelpful doctors</td>
<td>14.922</td>
<td>5</td>
<td>.002</td>
</tr>
<tr>
<td>Wanted something done differently</td>
<td>6.454</td>
<td>2</td>
<td>.022</td>
</tr>
<tr>
<td>Wanted to talk more to someone about the birth</td>
<td>6.122</td>
<td>2</td>
<td>.049</td>
</tr>
<tr>
<td>Not always kept informed</td>
<td>7.707</td>
<td>5</td>
<td>.082</td>
</tr>
<tr>
<td>Decisions were made without taking wishes into account</td>
<td>13.751</td>
<td>5</td>
<td>.024</td>
</tr>
<tr>
<td>Felt pressured to have baby quickly</td>
<td>8.424</td>
<td>5</td>
<td>.046</td>
</tr>
<tr>
<td>Felt labour was taken over by strangers and/or machines</td>
<td>6.628</td>
<td>5</td>
<td>.073</td>
</tr>
<tr>
<td>Doctors &amp; midwives not encouraging/ reassuring</td>
<td>44.991</td>
<td>5</td>
<td>.022</td>
</tr>
<tr>
<td>Wanted more information</td>
<td>7.548</td>
<td>2</td>
<td>.012</td>
</tr>
</tbody>
</table>

Feelings during labour

During the first postnatal interview women were asked about their feelings during labour. Table 17 shows the association between these variables and the development of PTSD at three months.

Table 17: Feelings during labour and PTSD at 3 months postpartum

<table>
<thead>
<tr>
<th>Feelings/thoughts during labour</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worried, frightened or anxious when labour first began</td>
<td>12.960</td>
<td>3</td>
<td>.005</td>
</tr>
<tr>
<td>Not confident in labour</td>
<td>8.858</td>
<td>1</td>
<td>.002</td>
</tr>
<tr>
<td>Out of control</td>
<td>1.376</td>
<td>1</td>
<td>.216</td>
</tr>
<tr>
<td>Frightened</td>
<td>9.436</td>
<td>1</td>
<td>.003</td>
</tr>
<tr>
<td>Not in control*</td>
<td>3.348</td>
<td>1</td>
<td>.058</td>
</tr>
<tr>
<td>Helpless</td>
<td>11.007</td>
<td>1</td>
<td>.005</td>
</tr>
</tbody>
</table>

* Questionnaire wording changed to indicate the association between not feeling “in control” and PTSD

Participants who reported a lack of confidence in labour and those who felt worried, frightened or anxious when labour first began and frightened and/or helpless in labour were more likely to meet the diagnostic criteria for PTSD at both four to six weeks and at three months. Feelings of lack of control were associated with a PTSD symptom profile at four to six weeks but not at three months.

Social support

At three months postpartum there was no statistically significant relationship between the level of social support reported at this time and a PTSD symptom profile [$\chi^2$ (2) 1.208, $p = .675$].
Psychological variables

A Chi-square test was used to determine if women who met the diagnostic criteria for PTSD at three months were more likely to be depressed using EPDS. A statistically significant association was found \( \chi^2 (1) = 90.638, p < .001 \).

A Chi-square test was used to determine if women meeting the diagnostic criteria for PTSD at three months were more likely to be depressed, anxious or stressed according to DASS-scores. A statistically significant association was found between elevated levels of depression \( \chi^2 (1) = 46.538, p < .001 \), anxiety \( \chi^2 (1) = 11.563, p < .001 \), and stress \( \chi^2 (1) = 39.004, p < .001 \).

Effect of the counselling intervention

PTSD symptom profile

The main research purpose was to determine the effect of the intervention on a PTSD symptom profile. The MINI-PTSD provided categorical data, identifying participants as either having PTSD, or not. A Chi-square test was undertaken to determine if there was a statistically significant difference between the intervention and control groups for PTSD symptoms. There was no statistically significant difference between the number of women meeting the full diagnostic criteria for PTSD in the group receiving the midwifery debriefing intervention compared with those in the control group at either four to six weeks postpartum \( \chi^2 (1) = .236, p = .392 \) or at three months postpartum. However, there was a trend towards improvement in the intervention group at three months \( \chi^2 (1) = 3.014, p = .075 \). Table 18 below shows the numbers of women in each group at four to six weeks and three months. At four to six weeks postpartum there were similar numbers of women who met the diagnostic criteria for PTSD; 16 women in the control group and 17 in the intervention group. At three months postpartum this had dropped to nine women in the control group and three women in the intervention group.
Table 18: PTSD at 4-6 weeks postpartum and at 3 months postpartum

<table>
<thead>
<tr>
<th>PTSD at 4-6 weeks</th>
<th>Control group (n)</th>
<th>Intervention group (n)</th>
<th>Total (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>37</td>
<td>32</td>
<td>69</td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>17</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>49</td>
<td>102</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PTSD at 3 months</th>
<th>Control group (n)</th>
<th>Intervention group (n)</th>
<th>Total (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>44</td>
<td>47</td>
<td>91</td>
</tr>
<tr>
<td>Yes</td>
<td>9</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>50</td>
<td>103</td>
</tr>
</tbody>
</table>

PTSD total symptom score

The number of symptoms on the MINI – PTSD was totalled to provide a total symptom score for PTSD. A \( t \) test was used to determine if the total PTSD symptom score differed between the intervention group and the control group at four to six weeks and three months. It showed a statistically significant difference at three months postpartum \([t (101) = 2.144, p = .035]\) but not at four to six weeks postpartum \([t (100) = -.959, p = .340]\) suggesting that the intervention had a positive effect on reducing the PTSD symptoms score at three months postpartum.

Depression, anxiety and stress

At four to six weeks postpartum, prior to the second counselling session, 16 out of 50 women in the intervention group and 18 out of 53 women in the control group had EPDS scores greater than 12, indicating probable depression. There was no statistically significant difference in EPDS scores >12 between the intervention and control groups. However, at three months postpartum (Phase 4), four out of 50 women in the intervention group and 17 out of 53 women in the control group scored >12 on the EPDS indicating probable depression. At this time, there was a statistically significant association between the intervention and control groups for EPDS scores \([\chi^2 (1) = 9.188, p = .002]\) with less women in the intervention group reporting EPDS scores >12.

When the DASS-depression scores were analysed the outcome was consistent. Using DASS-depression with a cut-off of >13, three out of 50
women in the intervention group and 14 out of 53 women in the intervention group indicated an above mild level of depressive symptoms. A statistically significant association was found between the intervention and control groups at three months \([\chi^2 (1) = 7.549, p = .005]\) with less women in the intervention group reporting DASS-depression scores >13 (DASS-21 was not administered at four to six weeks postpartum).

With regard to anxiety scores, one out of 50 women in the intervention group and six out of 53 women in the control group scored higher than 9 on the DASS-anxiety sub-scale indicating anxiety levels above mild. There was no statistically significant association between the intervention and control groups for DASS-anxiety using a cut-off of >9 at three months \([\chi^2 (1) = 3.430, p = .069]\).

With DASS-stress scores, seven out of 50 women in the intervention group and 17 out of 53 women in the control group had scores above 19 indicating more than mild stress levels. A statistically significant association was shown between the intervention and control groups for DASS-stress at three months \([\chi^2 (1) = 4.478, p = .029]\) with less women in the intervention group reporting DASS-stress scores >19.

Self-blame, and confidence about a future pregnancy

Self-blame was a recurring theme and was measured on a single item with a five-point Likert scale. A \(t\) test was performed to determine if there was a difference between the intervention and control groups and the degree of self-blame about the birth. Women in the intervention group reported reduced levels of self-blame regarding the birth \([t (101) = -12.424, p < .001]\).

Similarly, women were asked to rate their confidence about a future pregnancy. Women in the intervention group reported higher levels of confidence about a future pregnancy than women in the control group \([t (101) = -9.096, p < .001]\).
Participants’ perceptions of the intervention

Women in the intervention group were asked to identify how useful the contact with the researcher was following the birth in helping to come to terms with the birth. On a scale of 1-10 with 1 being “not useful” and 10 being “extremely useful”, 36 women (72%) rated the intervention either 9 or 10 out of 10. An option was provided for women who felt that they did not have difficulty in coming to terms with the birth (n=5, 10%). A further seven women (14%) scored 8 out of 10 and 2 women scored 7 (4%). None of the women scored lower than seven out of 10.

Participants reported on when initial contact should occur to provide an opportunity to talk about the birth. Overwhelmingly women reported that they thought that the initial opportunity to talk about the birth should be within a few days of the birth (n=45/50, 90%). Of the remaining 10% of participants, two women thought that contact during pregnancy was important and three women felt that it was more valuable to have the opportunity to talk after the events surrounding the birth had time to “sink in”. These women favoured four weeks postpartum as the ideal time for the initial opportunity to talk about the birth.

Conclusion

Childbirth is a significant and potentially traumatic event in the lives of women. This study identified a 9.6% incidence of acute PTSD, with 29.5% of women identifying that their birth experience was traumatic according to Criterion A of the DSM-IV for PTSD. At three months postpartum, 12 women (3.5%) met the diagnostic criteria for PTSD. Most of the antenatal factors under investigation were not associated with the development of PTSD at four to six weeks postpartum or at three months postpartum confirming work of previous researchers in this area. Obstetric intervention, poor care during labour, and negative feelings whilst in labour such as fear, helplessness and
lack of control were associated with the development of PTSD at four to six weeks and three months postpartum.

This study extends knowledge in the field of study by investigating the efficacy of an intervention specifically designed to address psychological trauma following childbirth. Emotional distress was reduced in relation to the number of PTSD symptoms, depression, stress and feelings of self-blame. Confidence about a future pregnancy was increased. Although there was not a statistically significant difference in the number of women with PTSD at three months postpartum or in a reduction in anxiety scores, there were fewer women in the intervention group compared with the control group who met PTSD criteria or had anxiety levels above mild.
Chapter 7

Discussion

The present study was designed to develop and test a counselling intervention for addressing symptoms of psychological trauma in postpartum women. Other outcomes determined the incidence and factors associated with PTSD at four to six weeks and three months postpartum and the effect of the intervention on other psychological outcomes assessed.

This study has methodological strengths in testing a psychological intervention for use by midwives. Firstly, the study used a rigorous approach to develop an intervention that involved a model for understanding women's distressing birth experiences, a literature review of postpartum counselling interventions, and focus group interviews with women who experienced a traumatic birth and midwives currently providing clinical services. The debriefing intervention is compatible with successful psychological therapies for treating PTSD in the general population. In the absence of any well-documented psychological strategy for promoting emotional well-being following a traumatic birth experience, this approach gives credence to the views of women, who consistently reported that opportunities to talk about their birth experience were "helpful", and to the service innovations of health professionals towards women-centred care. Secondly, DSM-IV criterion A was used to screen for inclusion into the control or intervention groups rather than an arbitrary indicator of a possibly traumatic birth experience such as an emergency caesarean section. This approach to screening acknowledges that it is the women's perception of events not simply the nature of the event itself that results in the development of trauma symptoms. Thirdly, the use of standardised instruments allows for replication and comparisons to be drawn with the general population of women. Fourthly, adherence to standard time frames enabled the incidence of acute and chronic trauma symptoms in childbearing women to be determined according to DSM-IV criteria. Finally, the sample was adequately representative of Queensland birthing population.
in terms of age, marital status, education and obstetric events which enable results to be generalized and the sample size permitted statistical analysis with sufficient power.

This chapter will discuss the outcomes of the study, the incidence of PTSD, the factors found to be associated with the development of acute and chronic trauma symptoms and the effect of the intervention on a range of outcomes. The findings will be examined in relation to contemporary literature on childbirth and trauma. Limitations of the study and implications for future research will also be discussed.

**Incidence of PTSD**

The second purpose of this study was to determine the incidence of acute and chronic PTSD. Around thirty percent (29.5%) of women identified their birth as emotionally traumatic and feared for their own life or that of their baby, or feared that they or their baby would be seriously injured (Criterion A–DSM-IV). The incidence of acute PTSD at four to six weeks postpartum was 9.6% (n=33) and at three months postpartum was 3.5% (n=12). As expected there was an improvement in the PTSD incidence over the three months. However, of concern is the PTSD rate at three months because PTSD that has not improved at the end of three months is likely to remain chronic and cause significant distress in daily life (Ryding et al., 1998b; Yehuda, 1999).

Other Australian researchers have reported similar results. At four weeks postpartum, Creedy et al. (2000) found that 33% of women identified a stressful birthing event and reported at least three trauma symptoms at four weeks postpartum and 6% of women met the DSM-IV criteria for acute PTSD. While the slightly higher percentage of women reporting a stressful birth experience and the presence of at least three trauma symptoms in the Creedy et al. (2000) study and a somewhat lower incidence of PTSD at four weeks postpartum may at first seem at odds with the current study, this may relate to differences in the tools used for data collection and/or timing of data
collection. In the present study, women were asked three questions within 72 hours of birth to determine if they met criterion A of the DSM-IV. In the Creedy et al. (2000) study data was collected at four weeks postpartum. Also, it may be more challenging for a woman to acknowledge the fear of death or serious injury, especially if both are physically well, than to admit to a stressful event during labour. This may account for the higher number of women reporting a stressful birth event in the Creedy et al. (2000) study that does not translate into a higher incidence of PTSD.

The slightly higher percentage of women in the present study who met the diagnostic criteria for PTSD at four to six weeks may also be a reflection of the increasing medicalisation of childbirth. The caesarean section rate for women in this sample was 2% higher than in the Creedy et al. (2000) study, which involved data collection in 1998. Caesarean section is frequently the extreme outcome of a highly medicalised approach to birth. The increased use of other medical/technical procedures is associated with high caesarean section rates, including induction, augmentation with a syntocinon infusion, electronic fetal monitoring and epidural analgesia; known as the cascade of intervention (Inch, 1982). Women in the present study may have experienced a more intense focus on the mechanical and medical approach to birth, and within this context, the provision of adequate intrapartum and postpartum emotional support is extremely difficult (Olsson, Jansson & Norberg, 2000). Other macro changes may have impacted on the quality of technical and emotional care women received, such as growing workforce shortages, medical indemnity problems and fear of litigation by hospital administrators, doctors and some midwives (Johanson, Newburn & Macfarlane, 2002; Kirkham, 1999; Queensland Health Department, 1999; Zinn, 2002).

A recent UK study by Ayers & Pickering (2001) was designed to investigate the relationship between childbirth and PTSD. They reported a prevalence of 6.9% of women who fulfilled the criteria for PTSD at six weeks postpartum decreasing to 3.5% at six months postpartum. However, when excluding women who already met the diagnostic criteria for PTSD in pregnancy (and
those whom did not complete an antenatal questionnaire), 3.2% (95% CI 0.9-5.5) of women may develop PTSD by six weeks postpartum as a result of childbirth and 2% (95% CI 0-4) may still meet the diagnostic criteria at six months postpartum. The incidence of PTSD at six months in the Ayers and Pickering study is the same as the incidence at three months in the present study, when women with existing PTSD were not screened out. However, the incidence of PTSD at six weeks postpartum in the Ayers and Pickering (2001) study is lower than in the present study. Differences in the method of data collection and/or instruments for measuring PTSD may account for some of the variation. Other factors may have played a role. For instance, Ayers & Pickering (2001) acknowledge that the sample was not wholly representative and that there was some missing data. However, it may also be possible to attribute this discrepancy to different obstetric intervention rates. The Ayers & Pickering (2001) study was conducted in the U.K. and data was collected from December 1996 to March 1998. During this period the caesarean section rate in the U.K. was 18% (Mayor, 2002) compared with the 23% in the present study. Considering the strong association between emergency caesarean section and the development of PTSD, especially at four to six weeks postpartum, it may be that the increased rate in the present study is a genuine increase in PTSD symptoms associated with increased medicalisation of childbirth.

Studies by other authors report differing rates of PTSD symptoms. Czarnocka and Slade (2000) report that 3% of participants met PTSD criteria at six weeks postpartum, however, only women having ‘normal’ births were assessed. Menage (1993) reported that 30/500 women (6%) fulfilled DSM-III-R criteria for PTSD that was related to obstetric and gynaecological procedures, however women in this study were a self-selecting, community-based sample making comparisons unreliable. Wijma et al. (1997) reported a 1.7% incidence of PTSD using a cross-sectional design and collecting data from participants when they were one month to one-year postpartum. However, when the cut-off point for the instrument used in the study to measure PTSD was changed to mirror DSM-IV criteria, which does not qualify
symptom frequency, the incidence was 4.8%. This study was conducted in Sweden and data collection took place in 1993-1994. Sweden has consistently reported low caesarean section rates compared with other westernised countries. The caesarean section rate in 1973 was 5% climbing steadily to 12.3% in 1983 and declining somewhat to 11% in 1990. Even in 1993-1994 the caesarean section was below 15%. In a Swedish study by Ryding et al. (1998b) the reported caesarean section rate was 9.1%. Also, the extended time frame for data collection by Wijma et al. (1997) may have resulted in the under-reporting of acute PTSD because for many women acute trauma symptoms diminish by three months (Creedy et al., 2000; Ayers & Pickering, 2001).

**Incidence of depression, anxiety, and stress in pregnancy and postpartum**

Although it was once thought that pregnancy was protective against depression, it is now accepted that antenatal depression is the factor most predictive of postnatal depression (Green, 1998). Other studies have found that scores that rise above the threshold for probable depression during pregnancy is more common than scores indicating probable depression postpartum (Evans, Heron, Francomb, Oke & Golding, 2001). Findings in the present study are consistent with this trend. The prevalence of antenatal and postnatal depression is similar to that reported in other studies (Boyce & Todd, 1992; Horan-Smith & Gullone, 1998; Webster et al., 2000b). This same trend of higher mean scores in pregnancy than postpartum was found for the other psychological variables of anxiety and stress. It seems late pregnancy is more of an emotionally testing time for some women than three months postpartum.

**Factors associated with PTSD**

The third purpose of this study was to determine the factors associated with the development of PTSD at four to six weeks and three months postpartum. In the first instance the contribution of a number of antenatal variables was
investigated. An overview of the antenatal variables will be discussed in relation to the relevant literature in the following sections.

**Antenatal variables**

The antenatal variables used in this study were the demographic factors of age, marital status, education, occupation and ethnicity; the psychological factors of depression, anxiety and stress; obstetric history including previous caesarean section, forceps/vacuum extraction, stillbirth, abortion or miscarriage, postpartum haemorrhage and/or premature birth; and social support. Of these variables, age, parity, levels of stress and social support were associated with the development of PTSD at four to six weeks postpartum. There was no consistent association between these factors and PTSD at three months. At this time, none of the antenatal variables were associated with the development of PTSD.

It seems reasonable to assume that age and parity are related. Women having their first baby are on average younger than women having subsequent babies. Women expecting their first baby are also more likely to be facing major life adjustments than women who are already mothers. Changes to work life, income, roles and relationships are often more profound with the birth of the first baby and may contribute to increased levels of stress. Alternatively, or as well, women may feel more stressed because of perceived low levels of social support.

The picture from other studies is somewhat mixed. Wijma et al. (1997) found that nulliparity was associated with PTSD in women who had delivered within one year of the data collection date. However, Czarnocka and Slade (2000) found that parity was not a factor in predicting PTSD symptoms following childbirth. Similarly, Creedy et al. (2000) did not find an association between parity and the development of acute or chronic PTSD.
While social support is considered to be either a protective or vulnerability factor in the development of PTSD, few studies have investigated the perceived level of social support prior to the traumatic event because of the usually unpredictable nature of these experiences. Most have also not attempted to retrospectively assess the pre-trauma level of social support presumably because of problems with recall bias. Therefore, most of the literature on social support and PTSD relates to the perceived level of social support provided after the traumatising event and this will be discussed later in relation to levels of social support measured at four to six weeks postpartum and three months postpartum. However, Creedy et al. (2000) did measure partner support antenatally and found that it was not associated with the development of acute or chronic PTSD. Although partner support is only one aspect of social support for this population it is likely to be a key indicator of overall feelings of support and was a factor in the MSSS scale used in the present study.

In the present study, participants with higher antenatal stress scores were more likely to have PTSD symptoms at four to six weeks. This finding is congruent with a profile of a younger first time mother with poor social support and suggests that the variables of social support and stress are linked (Oakley et al., 1990). The capacity of social support to promote health is increasingly well-recognised (Hodnett, 1997; Ray & Hodnett, 1998). Supportive relationships during the perinatal period may enhance feelings of well-being, personal control and positive affect, and thereby reduce the stress of pregnancy related changes (Norbeck & Anderson, 1989). Conversely, low social support and high levels of anxiety are linked to fear of childbirth (Saisto, Salmela-Aro, Nurmi & Halmesmäki, 2001) which in turn leads to more negative cognitive appraisal of delivery (Zar, Wijma & Wijma, 2001) and more mental distress after emergency caesarean section (Wijma et al., 2002). It seems that social support may mediate stress levels and that pre-existing high stress levels reduce coping ability.
None of the antenatal variables assessed in the present study were associated with PTSD at three months. This is a similar finding to that of Creedy et al. (2000). They examined preparation for childbirth, partner support, obstetric risk, the likelihood of birth complications, anticipatory anxiety, and state anxiety and reported that none of these variables were associated with the development of acute PTSD or chronic PTSD. Whilst on the one hand, differences between the studies in the antenatal variables measured and instruments used makes comparisons between studies problematic, these also strengthen the proposition that the lack of association between antenatal factors and PTSD at three months postpartum is a reasonable conclusion; that is, similar concepts were measured in different ways and none showed a positive result. The lack of association between antenatal variables and PTSD at three months postpartum is supported by the literature on PTSD related to other types of trauma. The nature of the trauma, including severity, duration and intensity, plus a lack of social support and increased life stress post-trauma are the best predictors of PTSD (Lee & Young, 2001).

It is unclear why age, parity, social support and stress were associated with PTSD at four to six weeks but not at three months. It is possible that there may be sub-groups of women at risk of developing PTSD as in the Ryding et al. (1998b) study. It may be that women with PTSD at three months had experienced more severe trauma, had more severe ongoing life-stress or were re-traumatized in the current pregnancy and that these factors override any association between antenatal factors and PTSD at three months. The case studies of women with PTSD at three months support this to some extent with women facing ongoing uncertainties and difficulties arising from complications from the birth for themselves or their baby or reeling from retraumatisation. In terms of PTSD at four to six weeks it seems that there is a vulnerable sub-group of women who may be younger, having their first baby, with reduced levels of social support, and already stressed.
Intrapartum and postpartum variables

The intrapartum and postpartum variables discussed in this next section relate to obstetric events and intervention, satisfaction with care, feelings in labour, and postpartum social support.

Obstetric events and intervention

The results of this study confirmed that obstetric intervention is strongly associated with the development of PTSD at four to six weeks postpartum and three months postpartum. These findings are consistent with other studies involving women who have experienced obstetric or gynaecological procedures (Creedy et al., 2000; Lyons, 1998; Menage, 1993; Ryding, Wijma & Wijma, 1998c).

Twelve obstetric variables were associated with PTSD at four to six weeks and six of these were consistently associated with PTSD at both time periods. The pattern that seems to emerge is the association of highly medicalised childbirth with postpartum trauma symptoms. Women with trauma symptoms often have been subjected to a range of interventions. For instance, a syntocinon infusion to augment a slow and ineffective labour that was possibly disrupted by the insertion of an epidural (Roberts, Tracy & Peat, 2000), or fear/anxiety leading to a lengthy labour that culminates in an operative vaginal birth, or an emergency caesarean section (Ryding, Wijma, Wijma & Rydhstrom, 1998a).

There were several differences between the obstetric variables associated with PTSD at four to six weeks and those associated with PTSD at three months. The variables associated with PTSD at four to six weeks that were no longer associated with PTSD at three months were experiencing electronic fetal monitoring, a higher number of vaginal examinations, emergency caesarean section and general anaesthetic. Artificial rupture of membranes for augmentation of labour was associated with PTSD at three months but not at four to six weeks. Lyons (1998) also reported that women who were
induced or given an epidural were statistically more likely to have higher PTSD symptom scores one month following childbirth.

The work by Creedy et al. (2000) may explain variations in the factors associated with PTSD symptoms between different studies and over time. Creedy et al. (2000) found that the level of obstetric intervention made a weak contribution to chronic trauma symptoms. They also examined the level of satisfaction with care and suggested that it seemed that women who experienced trauma associated with obstetric intervention may more easily resolve or integrate childbirth events than women who felt traumatised as a result of poor care. They also found that women who experienced high levels of obstetric intervention and poor intrapartum care may have a double burden to integrate and may experience persistent trauma symptoms.

Poor care

Satisfaction with care is about perception. Satisfaction is not just having a positive experience, but a positive evaluation of that experience (Bramadat & Driedger, 1993). A positive birth experience is not just a healthy baby and a healthy mother but the perception by the woman of the situation. For instance, “having” or “receiving” support are not the same as feeling supported.

Satisfaction with care is a complex and multidimensional concept and increasingly recognised as synonymous with being “in control” (Berg & Dahlberg, 1998; DiMatteo et al., 1993; Green, 1999; Green, Coupland & Kitzinger, 1990; Green, Renfrew & Curtis, 2000; Simkin, 1991). Satisfaction is about giving birth in a manner and style that suits the woman given her individual circumstances and needs. According to the women interviewed, being in control involved having access to unbiased information, making decisions (including making decisions contrary to the advice of health professionals’ without punishment), trusting the health professional not to overstep the boundaries, not feeling coerced, feeling respected and trusting
that the right treatment and care will be provided. It also involves communicating feelings and desires so that the woman can be assured that the health professional has some knowledge and insight into her as a person and is then in a position to help support attainment of her goals and hopes. It may also involve feeling in control of their body and behaviour. Some women look to health professionals to help them achieve this or at least not to undermine their efforts in achieving this.

Similarly, dissatisfaction has been poorly defined in the literature. Research has identified that a lack of information, perceptions of caregivers as unkind or unhelpful and a reduced role in decision making was related to dissatisfaction with care in labour and birth (Brown & Lumley, 1994). The meaning of dissatisfaction was not explicated but the little qualitative data provided, and the nature of the questions, indicates that distress, not just dissatisfaction, was the outcome of poor care.

In the present study, questions were asked to measure various dimensions of satisfaction with care such as feeling supported and cared for, informed, involved in decisions. The majority of women were satisfied with their care. However, a statistically consistent relationship was found between dissatisfaction with these aspects of care and a PTSD symptom profile at four to six weeks postpartum. Although some of the individual questions did not elicit a positive result at three months postpartum the same overall dimensions of satisfaction or control were also strongly related to a PTSD symptom profile at this time.

Feeling supported and cared for is a recurring theme in the literature and central to the helping roles of health professionals. It has been found to be associated with a positive appraisal of the birth experience (Fenwick, Gamble & Mawson, 2003; Lavender, Walkinshaw & Walton, 1999; Walker, Hall & Thomas, 1995) and can be one of the ways in which women feel they are retaining control (Gibbins & Thomson, 2002; VandeVusse, 1999). In the present study, questions were asked about the overall quality of care, the
helpfulness of doctors and midwives, whether doctors and midwives were encouraging and reassuring and if opportunities to talk about their feelings were provided to ascertain if women felt supported and cared for. Women who provided negative responses to questions related to support and caring were more likely to develop PTSD at four to six weeks and three months. This finding is consistent with other studies, which reported that women who perceived staff as unsupportive were more likely to develop PTSD following childbirth (Allen, 1998; Creedy et al., 2000; Czarnocka & Slade, 2000; Menage, 1993; Wijma et al., 1997).

Feeling informed is also central to a positive birth experience. Many authors have reported that women want information that is accurate and sensitively communicated and that a lack of information reduced a sense of control (Gibbins & Thomson, 2002; Lavender et al., 1999; VandeVusse, 1999). Information provision is an essential prerequisite for feeling involved in decisions and therefore feeling in control. Participants were asked if they would have liked more information while in labour and whether doctors and midwives always kept them informed. Women who identified that they did not feel informed during labour were more likely to develop PTSD following childbirth. Likewise, feeling involved in decisions is a vital contributor to levels of satisfaction and feeling in control. Women in the present study were asked if decisions were made without taking their wishes into account and if they felt that their labour and birth was taken over by strangers and/or machines. Other studies have shown that women value having their choices respected, taking an active part in their labour and being able to make and be included in decision making during labour (Gibbins & Thomson, 2002; VandeVusse, 1999).

In the present study, only 13.7% (n = 48) of women reported opportunities to talk to staff about their feelings regarding the birth. One third (n = 112, 33.8%) of women said they would “definitely” or “possibly” like to talk more to someone about how they felt about the birth. Other questions could have been asked to determine if women wanted more information about the factual
aspects of labour and birth, such as a chronology of what happened or why certain actions were taken. However, the focus of this question was on the women’s opportunities to express their feelings as an initial step in processing and integrating their birth experience. It is acknowledged that many women need to complete their birth narrative and opportunities to fill in the missing pieces of factual information is valuable (Affonso, 1977). Findings of the present study indicate that many women are given insufficient time to process their birth experience. Creedy (1999) reported a similar low priority given to women’s postpartum emotional response to labour and birth, with only 14% of women reporting that staff asked how they felt after the delivery. She also found that less than half (49.7%) of the participants were encouraged to ask questions about the labour and delivery (Creedy, 1999).

It may be that quality of care is a mediating factor in the development of PTSD. Women who felt dissatisfied with decisions made by staff about their care, perceived that they were not consulted or respected, felt wronged by delivery staff or did not retain control were more likely to develop PTSD following childbirth (Creedy et al., 2000; Menage, 1993; Ryding et al., 1998c; Wijma et al., 1997). Conversely, the care of a midwife and/or doctor who is kind, respectful, informative, and “on-side” may be emotionally protective (Beech, 2000). The broader literature supports the therapeutic effect of a positive relationship between patients and care providers, highlighting an independent improvement in health outcomes if the practitioner is warm, supportive, friendly and reassuring (Di Blasi, Harkness, Ernst, Georgiou & Kleijnen, 2001).

Feelings whilst in labour
There was a positive association between feeling worried, frightened or anxious when labour first began and PTSD at four to six weeks and three months postpartum. This finding seems at odds with the lack of association between antenatal DASS-21 scores and PTSD postpartum, particularly antenatal anxiety scores. However, they may not be contradictory findings. It
may be that women have specific concerns about their health or that of their baby or worried about their ability to cope with labour for a range of physical, social and emotional reasons. It may be that hospital staff failed to provide reassurance at this early stage either via the telephone, if labour commenced at home, or at the time of induction or admission to hospital. These factors may not be identified using DASS-21 as this instrument measures depression, anxiety and stress as general states. The use of DASS-anxiety in pregnancy had a low reliability and this too may account for the differences. The timing of data collection may also account for the positive association with feeling worried, frightened or anxious when labour first began and PTSD at four to six weeks but no association between antenatal anxiety scores and PTSD at both times. It may be that anxiety levels increase leading up to the beginning of labour and were not as pronounced when measured in late pregnancy. Recall bias may also have influenced answers to this question. A woman experiencing a traumatic birth may retrospectively view the whole experience more negatively.

However, these negative feelings are consistent with other feelings reported by women with PTSD at four to six weeks and are consistent with the literature. Women in the present study who reported feeling less confident while in labour and less in control were more likely to have PTSD at four to six weeks. Similarly, women who reported being out of control, frightened and/or helpless were more likely to have developed PTSD at four to six weeks. This finding is consistent with other studies. Lyons (1998) reported that higher scores on the Impact of Events Scale were associated with feelings of not being in control during delivery (Lyons, 1998). In another study by Allen (1998) feeling out of control in labour was associated with higher levels of distress.

Anderson (2002) argues that women need control over the birth experience, not just choice. She suggested that choice is a narrow and misleading idea because women are pressured to accept certain mainstream medical forms of care including place of birth and care attendants (Anderson, 2002). In this
way the notion of choice becomes a mockery and women are oppressed. As a consequence, if the birth is traumatic, women who acquiesced to the medical system may hold themselves responsible for their own misery and/or the physical damage to their body or baby because they perceive that they made the wrong choice.

At three months postpartum, feelings of control were not statistically significant variables associated with the development of PTSD. However, fear and helplessness were strongly associated with PTSD. This may be related to the idea that there are two sub-groups of women experiencing varying degrees of trauma following childbirth as discussed previously. The association between helplessness and feeling frightened and PTSD at three months may be an indication of the severity of the trauma these women experienced.

Postpartum social support
Post-trauma social support is well recognised as a mediating factor in the development of PTSD. Other studies focussing on PTSD as a consequence of other traumatic experiences have shown social support to be involved in the aetiology, maintenance and development of PTSD (Jones & Barlow, 1990; Lee & Young, 2001). While much of this research is also retrospective, the confluence of results suggests that the absence of social support is detrimental and that its presence can buffer the development of many disease processes including PTSD. Horowitz (1999a) further explains that social support following a traumatic event can play a role in causation. Cultural attitudes about how people ought or should respond to stress may stigmatise and undermine crucial supports of self-esteem, personal identify and coping efforts (Horowitz, 1999a). In the present study, postpartum social support was related to the development of PTSD at four to six weeks postpartum but not associated with PTSD at three months postpartum. The reliability of the MSSS at three months postpartum had diminished to less
than .7, which may have influenced results. Another instrument for measuring social support may have shown a positive association.

Other studies have shown a positive association between PTSD and postnatal social support. For instance, Lyons (1998) found an association between higher scores for perceived social support from families and lower numbers of reported PTSD symptoms. Allen (1998) found that eliciting practical and emotional support from staff and partners was associated with reduced distress. A poor relationship with their partner was also found to be associated with symptoms of PTSD (Ryding et al., 1998c). Other researchers have studied partner support during labour and found that women who perceived that their partners were less supportive in labour were more likely to have PTSD at four weeks postpartum (Creedy et al., 2000; Czarnocka & Slade, 2000). Partner support, and social support generally, may enhance coping abilities and provide informal debriefing opportunities. Lack of social support, particularly poor partner support may indicate difficulties in the relationship, which serves as an additional stressful burden for the woman. Poor social/partner support may be a result of the impact of the trauma on the relationship.

**Identifying women at risk of developing PTSD**

Unlike previous research, the present study used a recognised criterion to identify women at risk of developing trauma symptoms following childbirth. Following birth women were asked questions to elicit whether they met criterion A for PTSD from the DSM-IV. They were asked if they ever felt that their life or that of their baby was in danger during the labour or delivery and if they ever thought that they or their baby would be seriously injured or permanently damaged. Women were then asked how they felt about this at the time. This resulted in 103/348 of the women (30%) meeting DSM-IV Criterion A for PTSD and subsequently being randomly allocated into either the intervention or control groups. All women were followed up until three months, including those women who did not report a traumatic birth.
Screening women in the early postnatal period using questions formulated to determine if they met criterion A of DSM-IV accurately identified the women who subsequently developed PTSD at four to six weeks or three months postpartum. Importantly, none of the 243/245 women in the ‘normal care’ group who had not reported a traumatic birth experience and were followed-up to three months postpartum had developed delayed PTSD.

Although this early screening of women seemed to identify subsequent cases of PTSD, some caution is needed in accepting this result at face value. It is possible that some women may be experiencing emotional numbing as a result of a traumatic birth and be unable to acknowledge or even recognise that the birth was traumatic in the first few days following the birth. Other women may be overcome by a feeling of relief and wish to move on from the birth experience rather than reflect on it. Women may be reluctant to criticize their caregivers, especially while they are still in hospital and this may conceal the true level of their distress. Even at this early stage, stigmatisation may affect some women. There can be significant pressure by family, friends and staff to accept the birth with equanimity. It is also possible that some of the women in the study may have developed PTSD following the final data collection phase at three months postpartum. Delayed PTSD is well recognised phenomenon and longer-term follow-up would be needed to determine if any participants reported trauma symptoms or developed PTSD related to the birth after three months postpartum (Blank, 1993; Horowitz, 1993).

**PTSD and depression, anxiety and stress**

Women with PTSD at four to six weeks postpartum and three months had statistically significant higher mean scores for depression using the EPDS than women without PTSD. They were also more likely to score above the cut-off scores for probable depression. Likewise, women who met the criteria for PTSD at three months postpartum were more likely to have higher mean scores for depression, anxiety and stress on the DASS-21 than women
without PTSD. This picture is consistent with the results reported in other studies. There is a high incidence of comorbid psychological disorders among individuals with PTSD (Deering et al., 1996). For women, depression is the most commonly reported co-morbid disorder (Seedat & Stein, 2000).

**Effect of the intervention**

**PTSD symptoms**

The intervention did not reduce the prevalence of PTSD in the intervention group at four to six weeks or at three months, although there was a trend towards improvement. However, when the number of symptoms on the MINI – PTSD was summed to provide a total symptom score, there was a statistically significant difference between the intervention and control groups at three months postpartum. Participants in the intervention group showed a reduction in total symptom scores at three months. These results are promising.

This section will initially discuss the statistically significant findings that indicate that the intervention was successful in reducing PTSD total symptom scores. Explanations for this outcome and an analysis of why this intervention showed some success when other debriefing interventions used with postpartum women have been unsuccessful will be offered. Following this, an analysis of the finding that the intervention did not demonstrate a statistically significant difference in the incidence of PTSD at three months will be presented.

**Reduction in PTSD total symptom score**

It seems that the strategies used in the intervention were appropriate and helpful and this study confirms the work undertaken in relation to non-childbirth related PTSD. Specifically, in the aftermath of a traumatic experience it has been found that those people who feel they can tell someone about what has happened are less likely to develop PTSD (Horowitz, 1999a, b; Nightingale & Williams, 2000). This interpersonal
communication promotes understanding and reduces irrational fantasies about why the event occurred (Horowitz, 1999a). Participants in the present study were provided with two opportunities to discuss their birth experience at length with a midwife/researcher who was knowledgeable about the current maternity care practices, the culture of maternity services and contemporary complaints management and experienced in helping women process distressing birth experiences. Providing women with an opportunity to discuss their birth experiences draws on Rogerian humanistic psychotherapy and while it appears to involve simple counselling skills, such as active listening and reflecting feeling, it is imbued with a deep sense of empathy that needs to be understood and conveyed to effect a therapeutic change (Watkins, 2001).

Participants in the intervention group were reassured that help for their difficulties was available. The emotional support offered through the reassurance that others are willing and able to help in the struggle to regain equilibrium and that these sorts of emotional problems can be successfully treated, can be powerful early interventions (Horowitz, 1993; Josephs, 1996).

Other aspects of the intervention mirror cognitive strategies such as specifically challenging and countering distorted thinking. There is research support for cognitive therapies in preventing and treating chronic PTSD (Foa et al., 2000; Foa, Olasov Rothbaum, Riggs & Murdock, 1999; Joseph, Williams & Yule, 1997; Livanou, 2001). It may be the extent to which the intervention used in the present study used cognitive strategies that accounts for the reduction on PTSD total symptom scores. To some extent the intervention also drew on aspects of behavioural therapy. For instance, recounting the birth story, possibly writing a complaint letter to the health care provider, joining a self-help group and/or consumer action group, and writing a birth narrative can all involve forms of imaginal exposure. Prolonged exposure in a secure context has been found effective in reducing PTSD symptoms in the long term (Foa et al., 1999).
The intervention also specifically attempted to bolster social support. Post-trauma social support has a buffering role in the development of PTSD. Social support was promoted through discussing current support networks and exploring the adequacy of support offered by the woman’s partner and family. Women in the current study were provided with an opportunity to explore the reasons why their partner, family and friends may not have been able to offer them the support they needed. This discussion may go some way to negating the inappropriate comments of others and enabling women to seek out supportive people. Normalising and validating participants’ response to the birthing events, which may have reduced self-blame and stigmatisation, also enhances social support. This may enable women to feel more comfortable about disclosing their distress to others and in doing so establish informal support networks. Disclosing feelings and recounting the birth story to an understanding and sympathetic person is in itself an emotionally supportive activity. A high level of confiding, coupled with a high level of active emotional support is beneficial following a traumatic event, provided that the person confided in, did not at some point, also give a negative response (Joseph et al., 1997).

Aside from the aspects of the intervention that may have contributed to the reduction in the PTSD total symptom score, there may be factors relating to the nature of traumatised childbearing women or the nature of the trauma that make this intervention at least partially effective. In the present study, participants wanted to talk about their birth experience. They all used the opportunity to talk about their birth even though some women found aspects difficult to address and sometimes became distressed. No participants withdrew from the study or were even hesitant about talking about the events around the time of birth. This finding is congruent with the evaluation of the innovative ‘listening visits’ programs in the U.K., midwives’ views of debriefing and the appraisal of study participation in other reports on the use of debriefing (Charles & Curtis, 1994; Hammett, 1997; Henderson et al., 1998; Lavender & Walkinshaw, 1998; Small et al., 2000; Smith & Mitchell, 1996). This willingness, even eagerness, to talk about the birth experience may be
related to gender-based coping styles, or the nature of trauma related to childbirth.

The notion that there are different types of trauma that may lead to different responses has created debate over whether or not there is a generic PTSD (Blank, 1993; Joseph et al., 1997). It has been suggested that the structure of post-traumatic stress reactions are dependent on the type of event. If this is the case, the term PTSD should be qualified, for instance rape-related PTSD or combat-related PTSD, or used only as an umbrella term. Symptom groupings are relatively arbitrary and based largely on Horowitz's description of the ‘two factor model’, intrusion and avoidance (Lee & Young, 2001). Although the DSM-IV uses three symptom categories the evidence does not strongly support the grouping of symptoms in this way. Few studies have investigated the grouping of symptoms within a broader perspective on the phenomenology of post-traumatic stress reactions (Joseph et al., 1997). Seedat and Stein (2001) offer some support for this position and argue that although 17 specific core symptoms are described in the DSM-IV criteria, in clinical practice the disorder usually manifests heterogeneously with trauma-related symptoms, anxiety symptoms, and symptoms overlapping with depressive disorders. Adshead (2000) argues that it is more clinically useful to conceptualise PTSD as a range of possible disorders and that there are fear-based and/or shame-based reactions to trauma which may stem partly from the different types of trauma. In the present study the development of the intervention was based on the views of women and midwives. Using this perspective in the development of the intervention may have tapped into the essential nature of trauma related to childbirth rather than generic responses to trauma and may account in part for the promising results in terms of a statistically significant reduction in PTSD total symptom scores.

Analysis of the outcome of this study compared with previous research on debriefing

Unlike two of the previous studies using debriefing following childbirth (Hagan et al., 1999; Small et al., 2000), the present study showed some statistically
significant results indicating an improvement in women’s emotional health, specifically, a reduction in PTSD total symptom scores, depression and stress scores. These positive findings are also at odds with most of the literature on debriefing to prevent PTSD from other sources of trauma. However, there are several differences in the present study compared with previous work in relation to debriefing that may account for these findings.

Firstly, although the intervention was of a short duration, participants were offered more than one debriefing session unlike previous studies on debriefing following childbirth (Hagan et al., 1999; Lavender & Walkinshaw, 1998; Small et al., 2000) and the studies reviewed in the Cochrane review by Wessely (2000). It may be that one debriefing session, within the first few days following a traumatic birth, is insufficient. The emotional implications can be overwhelming and processing and integration of the trauma may be impossible in a short time (Horowitz, 1993). Providing women with more than one opportunity to process the event and their response to it may have contributed to the positive outcome of this study compared with some previous work.

In the present study, the second debriefing session was offered at four to six weeks postpartum. The timing of this session may be important since emotional responses to trauma change over time, especially in the period soon after a traumatic event. At Phase 2 (<72 hours postpartum), many women were still coming to terms with their feelings and were overcome, teary and at a loss, or numb with an externally calm, somewhat detached persona. These reactions are well described by Horowitz (1999a) as part of the outcry and denial phases of stress-response syndromes. Kendall-Tackett and Kaufman-Kanter (1993) describe similar early responses to a traumatic birth. At this stage, few women were able to use the opportunity to fully review their birth experience or engage with each aspect of the counselling intervention. Most women were not ready to explore alternative management of their labour or to link their feelings and behaviours to traumatic events around the time of birth. Generally, participants were struggling to piece
together a coherent narrative about their birth experience or could only express relief that it was over. Creasy (1997) found that women were not open to reconciling their birth experience until they had developed a birth narrative. This process of piecing together a coherent story about their experience took about three or four weeks (Creasy, 1997). The need for women to have early psychological support and to have a further opportunity to debrief their birth experience when they have formed a narrative of the experience may be a key factor in the promising outcome of the present study. Furthermore, the reduced ability of traumatised women to discuss the impact and meaning of the birth experience at this early stage may contribute to the therapeutic ineffectiveness of some previous studies.

With the understanding that people may need to moderate their exposure to the traumatic memory (Horowitz, 1993), and that this was an untested intervention, participants were never forced or coerced to talk about their birth experience. They were never told that was helpful for them to participate in the session or that expressing their feelings was beneficial. The use of the telephone provided participants with considerable control over the counselling situation. For instance, women could discontinue if they wished, or give any reason, genuine or not, for not commencing the session (e.g. baby needs, someone at the door, prior engagement). In this way women could easily extricate themselves from the counselling session without having to say they did not want to participate. Providing participants with control about whether to participate or not, the pace of disclosure, and scheduling of the debriefing session, are important when a sense of control has been eroded.

Differences in outcome measures and targeting of the intervention may also account for the differences in results. Previous studies investigating debriefing following childbirth did not measure PTSD symptoms as outcome or target the intervention to women reporting a traumatic birth (Hagan et al., 1999; Lavender & Walkinshaw, 1998; Small et al., 2000). Similarly, studies using debriefing following other sources of trauma did not target the
intervention based on the perceived trauma of the event (Armstrong et al., 1991; Conlon, Fahy & Conroy, 1999; Wessely et al., 2000).

Finally, some of the criticism of other studies relate to the standardisation of treatment (Wessely et al., 2000). A related issue is that in the debriefing sessions offered in studies of trauma from other sources, the counsellors did not necessarily have an ongoing commitment to that sort of work or have previous experience with victims from that sort of trauma or that particular occupational or social group (Joseph et al., 1997). In the present study, these issues did not apply. The intervention was developed and described in detail facilitating standardised application of the intervention. Furthermore, the midwife/researcher who provided the counselling was familiar with providing care to women following distressing birth experiences.

No statistically significant difference in incidence of PTSD

Although the PTSD total symptom score was reduced there was not a statistically significant reduction in the overall incidence of PTSD between the two groups. There may be several possible reasons for this.

The instrument used for measuring PTSD, the MINI-PTSD was reliable and valid but unresponsive to clinically important differences. Its primary purpose was as a diagnostic tool but is also considered suitable for research purposes (Sheehan et al., 1998). The dichotomous responses to questions which therefore yield only categorical data sheds little light on changes in symptom severity. Although the MINI-PTSD is simple and timely to administer, these advantages are somewhat diluted by the loss of precision in measuring changes in PTSD severity. The responsiveness of the instrument could be improved by increasing the number of response categories and the disaggregation of scores (Schneider et al., 2003). Responsiveness can also be improved by the use of individualised questions (Schneider et al., 2003). This was the case in the present study; participants were asked questions
pertaining to self-blame and confidence about a future pregnancy both of which showed a statistically significant difference between the two groups.

It is also possible that the instrument used to measure PTSD in the present study was insensitive to gender differences in the clinical presentation of PTSD, or to the symptom structure for childbirth-related PTSD. As previously discussed, women have a different burden of symptoms to men and this may be poorly discriminated when using the MINI-PTSD. It may be that women following childbirth-related PTSD have a specific pattern of presentation with, for instance, the greater burden on intrusion symptoms and the lesser burden on arousal symptoms as in the Creedy et al. (2000) study.

Although the power calculation was conducted using previously reported rates of emotional distress following childbirth, it is possible that a Type II error has occurred. The level of significance for all statistical tests was set at an alpha of .05 but a small effect was anticipated and the sample size was relatively small (Schneider et al., 2003). A larger sample size in subsequent research might show a positive result in reducing the incidence of PTSD. The positive effect on symptoms of depression, stress, self-blame and confidence about a future pregnancy provides some support that a Type II error has occurred.

It is also possible that the outcome is true and that there is no difference in the two groups. It may be that the intervention effectively targets depressive symptoms associated with a distressing or traumatic birth but does not deal with other symptoms more akin to anxiety. If this is the case, then the intervention may have treated the comorbid or concurrent disorders but not successfully treated PTSD.

Longer-term follow-up may be needed to detect changes in the incidence of PTSD. At three months postpartum, some women were experiencing consequences of the trauma. Some women reported that their baby may have residual problems but there was usually a degree of uncertainty
regarding the diagnosis and prognosis. Other women still had ongoing physical problems at three months postpartum, or their physical problems had only recently resolved. The focus on physical recovery for these women meant that the full impact of the birth had not yet been fully realised. They often attributed their emotions, such as emotional distress, only to their current physical problems (i.e. “I'll be fine once I get over this wound infection”). For these women, the counselling session at four to six weeks postpartum was valuable in some ways but perhaps premature in others and they may have benefited from another counselling session at 3-4 months postpartum or when physical problems were resolved.

Similarly, it could be that more intervention was needed to see a reduction in PTSD. It may be that the number of counselling sessions needs to be altered or individualised. This would take into account the needs of women who are experiencing ongoing trauma, a significant burden of stress in their lives, or simply need more time to resolve the complexity of responses to the traumatic event. At the appropriate time women would have an opportunity to receive support to understand and integrate the experience.

It may also be that the intervention needs revision and the inclusion of other strategies. It may be helpful to include strategies designed to address anxiety using behavioural techniques such as relaxation. It may be useful to include the partner in some, or all of the sessions, in order to address the vicarious psychological trauma experienced by partners if they witnessed the traumatic event. This may help improve postnatal support for the couple and deepen their understanding of what they have both been through.

It is possible that whilst the intervention offers some help it does not provide sufficiently for those with the most distress. Some women may be more distressed than others and as a result they still meet the diagnostic criteria for PTSD at three months postpartum. The only published study that had tested the effect of a counselling intervention on the incidence of PTSD following childbirth was the study by Ryding et al. (1998b). In this study, three to four
counselling consultations were provided to women in the intervention group during the first two to three weeks postpartum. At one and six months postpartum, these women showed an improvement in terms of cognitive appraisal of the delivery and posttraumatic stress reaction. However, the intervention did not appear to benefit those with the most serious posttraumatic stress reaction or those with the most serious mental distress. It is possible that there are similar sub-groups of women in the present study. It may be that the intervention is useful for women in certain sub-groups but not others (e.g. women who experience a traumatic childbirth without on-going complications). In the case study reports of the women with PTSD at three months, all of the women in the intervention group had ongoing complications for themselves or their baby, or in the case of one woman, complex social and emotional needs preceding the birth.

Finally, the method of repeated data collection from all the women recruited into the study, which involved asking questions about the birth and their current emotional health through the structured questionnaires, may have resulted in a degree of ‘overflow’ support to the control group. This may have narrowed the differences found between the intervention and control groups.

**Depression, anxiety and stress**

Fewer women in the intervention group had elevated depression, anxiety and stress scores than those in the control group. There was also a statistically significant reduction in the levels of depression and stress between the intervention and control groups. However, there was no statistically significant difference in the level of anxiety. These findings will be discussed in this section.

Some studies have shown a potential for harm from debriefing. The study by Small et al. (2000) using debriefing with postpartum women showed a worsening on one SF-36 sub-scale score, role functioning-emotional, for the women allocated to the intervention group. The systematic review conducted
by Wessely et al. (2000) also suggested that debriefing might contribute to a worsening of symptoms. This is not the case with the present study. On all measures, there was either a statistically significant positive effect of the intervention or a trend towards improvement.

The reduction in the numbers of women with depression, anxiety and stress is consistent with the reduction in PTSD total symptoms scores given the high incidence of co-morbid or concurrent psychological disorders with PTSD. However, Ryding et al. (1998a) found no difference in Symptoms Check List (SCL) values, which measured the somatization, depression and anxiety aspects of general mental distress. They suggested that it is probably circumstances in the woman’s life other than the recent emergency caesarean that influenced the SCL scores.

Of interest is the relatively low number of women in the control group reporting levels of anxiety above moderate compared with the number of women with raised depression and stress scores. Only six out of 53 women (11.3%) in the control group had anxiety scores above mild levels compared with 14 women (26.4%) with depression scores above mild levels and 17 women (32.1%) with stress scores above mild levels. This result is surprising since moderately high correlations between the scales would be expected and is reflective of the common causes of anxiety, depression and stress, which can be classified as either pre-existing vulnerabilities or environmental activation (Lovibond & Lovibond, 1995). At three months postpartum, the mean anxiety score for all participants was 1.7 (sd = 4.5, range 0-36), which is lower than the mean for the female population of 4.80 (sd = 5.03) (Lovibond & Lovibond, 1995). The low rates of elevated anxiety scores may account for the failure to show a statistically significant difference between the intervention and control groups in terms of mean anxiety scores.

Some authors have suggested that, although PTSD is listed as an anxiety disorder (DSM-IV) it is not synonymous with fear and anxiety. It would appear that the full range of negative emotions are felt including fear and anxiety as
well as grief, guilt, shame, rage and anger. Furthermore, processing the trauma gives rise to not only one state but a series of states as the event is examined from different perspectives (Joseph et al., 1997). The architecture of post-traumatic stress reactions remains unclear. In relation to childbirth, it may be that fear and anxiety are not the predominant trauma responses in the early weeks post-birth. These emotions may feature more prominently at a later time, perhaps when women plan another pregnancy and/or during a subsequent pregnancy when contemplating labour and birth (Josephs, 1996; Melender & Lauri, 1999; Ryding, 1993; Ryding et al., 1998c; Zar et al., 2001).

In the early aftermath of a traumatic birth it seems that other emotions are more prominent such as guilt, loss, a sense of failure, reduced self-esteem, sadness, anger, rage, loss of control, distressing recollections such as memories of the fear or pain. If this is the case then it is to be expected that the intervention would not have affected state anxiety levels.

Women with PTSD following childbirth do have anxieties but it may be that they are specific anxieties, such as hypervigilance towards the baby or anxiety about returning to the hospital, rather than general state anxiety as measured by DASS-anxiety. This may mean that the DASS-anxiety, which measures generalised state anxiety, is inappropriate for this population or possibly that it may be more useful to measure trait anxiety (Czarnocka & Slade, 2000).

Alternatively, it may be that there was not a statistically significant difference in the anxiety scores between the two groups for the same possible reasons provided to account for the statistically insignificant reduction in the incidence of PTSD at three months postpartum. Specifically, it may be that the counselling intervention addresses other aspects of PTSD responses more effectively than anxiety. Similarly, it may be that increased levels of anxiety are related to a higher degree of distress and more intervention or referral for specialised treatment is needed. If this is the case then longer-term follow-up is needed, as anxiety may take longer to resolve.
Self-blame and confidence about a future pregnancy

Self-blame was specifically measured because it was a recurring theme in the literature and focus groups. Women in the intervention group reported reduced feelings of self-blame about the birth experience than women in the control group. It seems that the counselling intervention successfully addressed feelings of self-blame.

Women in the intervention group also had improved confidence about future pregnancies in comparison with women in the control group. This is a clinically significant finding because several studies have linked fear and anxiety, predominantly arising from previous negative birth experiences, with voluntary infertility, delay in future childbearing, request for a caesarean section and/or adverse labour outcomes (Bewley & Cockburn, 2002; Gamble & Creedy, 2001; Gottvall & Waldenström, 2002; Ryding et al., 1998a; Saisto, Salmela-Aro, Nurmi, Körönen & Halmesmäki, 2001). Other studies have shown PTSD is distinguished from other anxiety disorders in that the traumatic event is of monumental significance and violates formerly held fundamental concepts of safety. In this way, the individual perceives their world as less predictable and controllable (Foa, Steketee & Olasov Rothbaum, 1989). Accordingly, it is reasonable to predict that PTSD is more likely to develop following a single trauma occurring in a previously trusted environment, for example, acquaintance rape at home versus stranger rape in foreign or unfamiliar place. This seems to be the case in childbirth-related PTSD. Women experience the traumatic event at a time when they expect to be cared for and protected. Engaging with women through the debriefing process enables many to view their birth experience as a less unpredictable and uncontrollable event and therefore to feel more positive about future pregnancy.

Participants’ perceptions of the intervention

In the present study, 45 out of 50 women in the intervention group reported difficulty coming to terms with the birth. When asked to identify how useful
contact with the researcher was following the birth, all of the 45 women indicated that the intervention was useful to extremely useful in helping them come to terms with the birth. This finding is consistent with other reports of participants' views of debriefing. For instance, Small et al. (2000) reported that 93% of women found the intervention helpful or very helpful and Henderson et al. (1998) reporting on data collected from women in the intervention arm of the Hagan et al. (1999) study found that 81.9% of distressed women found debriefing helpful.

**Contribution to the emerging theory on birthing trauma**

Given the limited literature in relation to trauma and childbirth and the lack of clarity about debriefing following childbirth, the present study attempted to develop a counselling/debriefing intervention based, to a large extent, on the views of women and midwives and then to test the intervention with women who reported a distressing birth experience. The present study did not specifically aim to develop explanatory models of trauma and childbirth, nor test any aspect of existing conceptualisations about trauma and PTSD. However, the results of this study make a contribution to several existing conceptualisations of PTSD. Indeed, the previous discussion highlighted the connection between the findings in the present study, outcomes from other studies and the theoretical and/or conceptual understandings of PTSD. This section will summarise the contribution of the present study to certain aetiological understandings of PTSD; Horowitz’s explanatory model of PTSD; and Kendall-Tackett and Kaufmann-Kanter’s (1993) conceptual framework for understanding PTSD following childbirth. Following this, the contribution of the present study to the women-centred care and the medicalisation of birth are also discussed.

**Factors associated with the development of PTSD**

This study identified that pre-existing emotional states are not closely related to post-birth posttraumatic stress reactions, particularly posttraumatic stress disorder at three months postpartum. Of greater relevance is the nature of the
trauma and perceived support post-trauma. Although researchers in the area of PTSD speculate why some people develop PTSD following a traumatic event and others do not, little work has been done on the nature of the trauma. This does not just mean the subjective experience of the event in terms of fear, helplessness or horror, which is now included in DSM-IV criteria, but the losses experienced by the woman (e.g. loss of a hoped for birth experience, permanent injury, death or damage to the baby), physical suffering incurred (e.g. severity of pain, wound infection), and duration of the trauma (e.g. admission of the baby to a neonatal intensive care unit, prolonged wait until emergency care was provided). In the present study, the qualitative and quantitative data support the idea that the nature of the trauma has a consistent relationship to the development of PTSD. It is also suggestive of the iatrogenic nature of posttraumatic stress reactions following childbirth.

In the present study, reduced social support at four to six weeks postpartum and three months postpartum was associated with PTSD. The importance of post-trauma support is well documented. However, support is not necessarily available for postpartum women, especially those with the additional burden of posttraumatic stress. Most women were not offered the opportunity to talk about their birth whilst in hospital and one-third wanted the opportunity to talk more about how they felt about the birth. Women experiencing PTSD symptoms may find it difficult to reach out to existing support networks or establish new ones.

The results of this study strengthens the theoretical perspective that it is the nature of the trauma and the quality and quantity of post-trauma support that play a superordinate role to pre-trauma factors in the development of PTSD. It also suggests that whilst the physical experience of a traumatic event plays an important part in the development of posttraumatic stress reactions, a sense of powerlessness and/or betrayal may be the key factors in determining which people have the most severe posttraumatic stress reactions and consequently the highest likelihood of chronic PTSD.
Explanatory models of PTSD

Horowitz (1986) explains the development of trauma symptomatology through an information-processing model. This is based on the notion that individuals have mental constructions of the world and of themselves, which they use to interpret incoming information. A traumatic event presents information that is incompatible with existing views and may require schematic cognitive changes in order for integration of the experience to occur. However, to prevent emotional exhaustion, the processes of intrusion and avoidance modulate the flow of information to the consciousness.

The present study found that women who were traumatised by childbirth experiences, reported a range of intrusive and avoidance symptoms that persisted over time. Horowitz suggests that individuals need to make sense of the traumatic experience in order to move forward in their lives. The processing of traumatic events by women in the intervention group was facilitated by filling in the missing pieces to enable the women to develop a coherent narrative about what happened and why certain obstetric procedures were performed, connecting the event with emotions and behaviours by discussing responses which may be attributed to the birth, and reviewing the labour management to develop a rational understanding of plausible alternative action that may have lead to a different birth experience. The success of the intervention in showing a statistically significant reduction in total PTSD symptom scores for women in the intervention group may provide some support for the information-processing model approach by Horowitz. The counselling intervention addressed both cognitive and affective dimensions with a person knowledgeable about childbirth and allowed participants to process the trauma with safe guidance.

Kendall-Tackett and Kaufman-Kanter (1993) offer a more comprehensive model for understanding women’s traumatic birth experiences in that it accounts for the symptoms of anger, self-blame, and feelings of failure more
readily than does Horowitz’s model. Much of the focus is on the interpersonal factors contributing to the trauma reactions and generating feelings related to stigmatisation, betrayal and powerlessness. The present study offers some support for this interpersonal conceptualisation of trauma during childbirth through identification of a consistent relationship between the variables measuring satisfaction with care and acute and chronic PTSD. The sense of powerlessness and betrayal experienced by some women may be as a consequence of limited consultation, a paucity of information, and disrespect during labour and delivery. Stigmatisation may be related to various processes. Some women may perceive that their needs are dismissed or their ability to participate in decision-making is ignored by health professionals. For other women, stigmatisation may be engendered through an expectation that they accept the birth with equanimity, or by their sense of failure at not being able to birth the baby as hoped.

Kendall-Tackett and Kaufman-Kanter (1993) have described a dynamic of physical damage as a component of a traumatic birth experience. This too, was supported by the results of this study. Obstetric events that resulted in physical damage were consistently associated with the presence of acute trauma symptoms and many of them with chronic trauma symptoms.

The intervention used in this research relied largely on cognitive strategies to address trauma symptoms. In light of the positive result in reducing PTSD symptoms it offers some support for the cognitive therapies in treating PTSD.

Importantly, this study demonstrated that it was not harmful to engage women in a discussion of their birth experience and was probably helpful. This finding is in contrast to two of the three previous studies in which a single debriefing session had been provided. However, it supports the position in the literature related to non-childbirth sources of trauma that expressing feelings soon after the event is helpful in preventing chronic PTSD. It is also in keeping with the maternity literature suggesting that is helpful to be able to talk about the birth
especially if it was distressing or traumatic and supports the views expressed in the focus groups with women and midwives.

Women-centred care

Control is one of the key concepts imbedded in women-centred care and forms the basis of midwifery models of care and/or continuity of care. The literature consistently identifies control as the essential factor in positive emotional outcomes for women (Berg & Dahlberg, 1998; DiMatteo et al., 1993; Green, 1999; Green et al., 1990; Green et al., 2000; Simkin, 1991). Control incorporates the dimensions of respect, trust, kindness, understanding and maintenance of the woman’s autonomy. Enacting these concepts in the maternity setting involves providing women with unbiased information (e.g. Lavender et al., 1999), supporting her right to choose (e.g. Brown, 1998), enhancing feelings of confidence and calmness through being present and providing reassurance and encouragement (e.g. Hodnett, 1996), and guidance if needed (e.g. Green, 1999).

However, when control is framed as ‘satisfaction’ it is seen by some service providers as an optional rather than imperative component of maternity care and lacks sufficient importance to warrant serious attention (Page, 2001). The results of the present study contribute to the discussion on this issue of women-centred care as it provides further evidence of the value of providing control as a prerequisite to the short and long-term emotional health of postpartum women. Arguably, the term ‘satisfaction’ should be superseded as it may undermine an appreciation by health service providers of the importance of providing quality emotional care.

Limitations

There are several limitations of this study. These are concerned with reliability, data collection procedures, sampling and role of the researcher in undertaking data collection, the counselling intervention, and assessing the outcome. Future research in regards to each issue will be presented.
The results of this study are predicated on an accurate assessment of trauma symptoms and PTSD in particular. While standardised measures were selected and used, inter-rater reliability needed to be established. In this study the researcher was trained and supervised in the administration and scoring of the tools, and results were presented and discussed with the supervisor. A more rigorous approach, however, would be to record and analyse the interview data by two independent raters.

Bias may have confounded the results. The women who received counselling may have been unconsciously grateful to the researcher, who had also performed the counselling, and reported that they were healthier afterwards than they really were. A more correct way of studying the effects of counselling would have been to separate the tasks of the counselling and the investigation of possible effects. This possible bias was partially addressed in the present study by using several strategies to minimize the differences between the groups. This involved collecting data from women allocated to each of the groups at the same time intervals and by the same person. The same midwife researcher was in contact with participants and, to some extent, care and concern was communicated to participants in each group making it less likely that only women in the intervention group felt involved in the study. In addition, another researcher checked the responses to the questions regarding the value of the intervention for 20% of the women in the intervention and control groups. Women were contacted within 48 hours of the final data collection at three months postpartum and offered the opportunity to provide feedback. No differences were found in the responses provided to this third party than were provided to the counsellor/researcher. It is not possible to know whether those women, who benefited from the counselling, did so because of the specific content of the counselling sessions or because of the extra attention or because of any other non-specific factors of the counselling procedure.
The data collection processes may have been a potential limitation in the present study. Phase 3 and 4 data were collected by telephone interviews. Although this approach is widely used in fields such as market research, telephone interviews have only recently been used for diagnostic interviews or administering an intervention (Lattimer et al., 1998; Muender et al., 2000). While there are inherent advantages of telephone interviews over other data collection methods such as postal surveys, this study could have conducted telephone interviews and then face-to-face interviews with a matched sample of those women who met PTSD criteria to ensure the validity of the data collection procedure.

The study sample was representative in relation to age, marital status, education, and ethnicity, and comparable to the general birthing population on a range of perinatal events. However, the sample could have included privately insured women. The inclusion of privately insured women could have affected the results of this study as this group of women are known to experience a much higher rate of obstetric intervention during labour and delivery than women in the public sector (Roberts et al., 2000) but are also more likely to report a consistent relationship with their service provider.

In light of the dearth of information about midwives emotional work, the documented inadequacy of postpartum emotional care, the short hospital postnatal stay and the fragmented postpartum community services, the feasibility of implementing this intervention may pose a challenge. Furthermore, the skills of the research midwife in the present study are unlikely to be present in most midwives currently working in postnatal wards.

The results of this study cannot be generalised to non-western cultures. Women from Asian countries, for example, may have different norms regarding the disclosure of feelings and discussing personal and possibly traumatic events. Using the telephone as a means of postnatal contact may compound these differences amongst different ethnic groups. The use of the telephone for data collection and the intervention was also dependent on a
command of conversational English and excluded women with low levels of English competency.

**Future directions**
This research raises questions about the nature of childbirth-related PTSD, ways to prevent it and strategies for intervening effectively with women who develop these symptoms.

The incidence of acute and chronic PTSD is clinically significant and may be increasing. Primary prevention strategies should be a first priority in reducing the prevalence of this debilitating condition and should focus on factors associated with the development of PTSD; obstetric intervention, poor emotional care and support around the time of birth. Comparisons between different models of care might yield useful insights.

Although the current study has shown some promising results, it has also highlighted limited knowledge of women’s posttraumatic stress reactions following childbirth. In order to be able to design well-tailored interventions it is necessary to better determine the symptom structure of post-traumatic stress reactions following childbirth. To this end, factor analytic studies should be conducted to identify the grouping of symptoms using a comprehensive menu of all symptoms associated with trauma, and not just those provided in the diagnostic classifications systems. Studies into the nature of posttraumatic stress reactions following childbirth would also provide information on the duration and resolution of chronic symptoms (i.e. the longitudinal course of this problem) (Blank, 1993; Joseph et al., 1997).

As a logical follow-on from a deeper understanding of the posttraumatic stress reactions following childbirth, an instrument needs to be developed to measure childbirth-related PTSD. Using a scale that provides interval rather than categorical data for the main outcome measure (PTSD) would provide a
subtler means of determining the effect of the intervention on trauma symptoms.

Future studies could provide data on the long-term effectiveness of the intervention and be able to confirm that women do not experience adverse consequences as a result of the intervention. Longitudinal studies would also provide insight into issues of delayed PTSD in motherhood and consequences on the mother-infant relationship.

Although conducting studies on PTSD following childbirth seems an ideal approach to measure the antecedents to trauma in reality this may not be the case. The cumulative nature of traumatic stress for some women suggests that a broader approach encompassing the reproductive phase may be helpful rather than measuring trauma solely related to labour and delivery. Many women in the present study reported trauma beginning in pregnancy and/or compounded by postnatal care in the hospital. In future studies it would be useful to measure existing PTSD and previous sexual abuse as risk factors for birth-related PTSD responses. In the present study, it was considered inappropriate to ask these sensitive questions using an antenatal questionnaire to be completed in the waiting area of the public antenatal clinic. However, it may be feasible to collect this information during the postnatal telephone interviews once the woman is familiar with the researcher and would be in a position to address these issues sensitively. It may also be worthwhile to determine attitudes about previous births and the occurrence of any previous traumatic births, not just previous operative births or obstetric events. Postnatal data should investigate satisfaction with care and further traumatic events such as perceived betrayal by postnatal staff and/or postnatal complications.

A larger sample of women would improve the statistical power of the present study and provide greater certainty regarding the effect of the intervention. This needs to be considered in future studies. Furthermore, as outlined in the discussion on the effect of the intervention on PTSD, more work is required
on when to initiate the debriefing intervention and the number and timing of sessions.

Future research needs to investigate the level of trauma experienced by partners, and/or support persons, and the implications of this trauma for the individual, family and community. Likewise, it seems that traumatic stress reactions may be a factor for maternity staff. It seems that some staff recoil from traumatised women possibly because the psychological trauma that they sense in the women resonates with their own unresolved fears from seeing and handling childbirth complications (Bewley & Cockburn, 2002). Research into the emotion work currently provided by midwives, and other maternity service providers, should be conducted to describe and explain this component of midwives’ work and show the way forward to an increased knowledge and skills in providing emotional support and counselling.

In the present study, the debriefing intervention was provided by a midwife researcher not currently providing clinical services or employed by a health agency. The nature of the person providing the intervention may have influenced the results, positively or negatively, and this would therefore influence the applicability of the intervention in mainstream services. It may be that women benefit more from engaging in the intervention with someone with whom they have a prior relationship, like a community midwife. The establishment of trust and rapport may be crucial to influencing the efficacy of such a treatment. Alternatively, it may be important to have someone not associated with the care team to debrief.

Similarly, it would be helpful to determine if the components of the intervention accounted for the positive results or some other factor associated with providing counselling. Future research should compare no treatment with non-directive counselling and the counselling intervention detailed in Chapter 3 to rule out other possible explanations for the positive results.
The high levels of emotional distress experienced by some women suggest that postnatal services should be expanded to provide women with the emotional support they need in the early postnatal weeks. This should include identifying those women needing referral to specialist counselling services. Research into the appropriate provision of postnatal emotional care should be conducted.
CHAPTER 8

Conclusion

Over the last decade there has been developing awareness of posttraumatic stress reactions following a traumatic birthing experience. Although the severe and long-lasting psychological effects of childbirth for some women are becoming better understood, very little research has been conducted on ways to ameliorate this iatrogenic distress. This chapter highlights the four major findings of this study and outlines the conclusions drawn from this work.

Incidence of PTSD following childbirth

This study has confirmed the presence of trauma symptoms following childbirth and identified that the intensity of such reactions meets the diagnostic criteria for PTSD in some cases. The incidence of both acute PTSD and chronic PTSD is clinically significant with 9.6% of women meeting the diagnostic criteria for acute PTSD at four to six weeks postpartum and 3.5% of women reporting the symptom picture of chronic PTSD at three months postpartum. This represents the women with the most severe posttraumatic stress reactions but there were a level of trauma symptoms reported by women that fell outside the diagnostic parameters with 29.5% of women who reported that their birth experience was traumatic and that they feared for their life or that of their baby and/or that they or their baby would be seriously injured or permanently damaged.

The incidence of acute PTSD in birthing women in this study (9.6%) is higher than earlier studies such as that reported by Creedy et al. (2000) of 5.6% and Menage (1993) of 6%. Whilst different data collection procedures and timeframe differences may account for these differences, it is equally plausible that the incidence of PTSD following childbirth is related to the increasing medicalisation of childbirth and as such represents a genuine increase. Support for the argument that increasing medicalisation of childbirth is contributing to a higher prevalence of PTSD following childbirth can be
found by making comparisons between countries using the caesarean section rate as a crude measure of the medicalisation of childbirth. In those countries, or hospitals, with lower caesarean section rates at the time of data collection, there is a consistently lower incidence of PTSD following childbirth.

**Factors associated with PTSD**

Many authors argue that the technocratic (synonymous with medicalised) approach to birth dominates in industrialised countries and detracts from the provision of appropriate care (e.g. Page, 2001). By providing individualised, sensitive, and trusting care, birth can be self-fulfilling and transforming rather than ineffective or harmful. In the present study, the factors associated with the development of PTSD at four to six weeks and three months postpartum point to the iatrogenesis of PTSD related to childbirth. Many obstetric interventions were related to both acute and chronic PTSD. This finding is consistent with the findings from other studies (e.g. Creedy et al., 2000). Also, variables that assessed the quality of the care provided to women, with regard to the provision of information, involvement in decision-making, and support or helpfulness, were also related to the development of PTSD. Other researchers have reported similar findings (e.g. Menage, 1993; Creedy et al., 2000).

Clearly, it is not the pain or process of normal labour and birth that is traumatic but rather the experience of intervention and poor care that is traumatic. Despite the bountiful information identifying predictors of positive and negative birth experiences and the well-documented overuse of medical intervention in childbirth, birthing services have been slow to change and implement this evidence. Mainstream maternity services still do not provide individualised, sensitive care, opportunities for continuity of care, or meaningful women-carer relationships. As such, the level of trauma symptoms identified in this study is not surprising and represents part of the ongoing physical and psychological morbidity suffered unnecessarily by birthing women.
Women should reasonably expect that staff would provide the best possible care at a time of great vulnerability. They should at least have their basic emotional and physical needs met and yet many women (29.5%) reported that the birth was traumatic and felt frightened, out of control, helpless and/or powerless. There were numerous occasions when women were not supported, judged harshly, denied involvement in decision-making or treated in a mechanistic fashion. The system is failing women and causing harm by placing the emphasis on childbearing as a bio-physical event and paying little heed to the importance of it as an emotional and sociological transition.

**Screening for women at risk of developing PTSD**

It seems that women at risk of developing acute and/or chronic PTSD can be readily identified prior to discharge from hospital by asking about their birth experience. This makes it feasible to organise targeted follow-up of these women.

Effective follow-up in the community following discharge is important as PTSD is debilitating and may have long-term consequences for the mother, child and family. Appropriate referral mechanisms to mental health services (ideally linked to maternity services) should be instituted so women experiencing emotional distress that cannot be effectively addressed by a midwife or child health nurse can receive appropriate care.

**Effect of intervention**

The results from the present study in terms of improving women’s emotional health and reducing symptoms of PTSD are promising. Although the intervention did not reduce the prevalence of PTSD at three months postpartum, it did reduce the PTSD total symptom score, level of depression, stress and self-blame and improved women’s confidence about a future pregnancy. It was well received by participants and many women commented positively about the opportunity to talk with a knowledgeable and supportive
person about their birth experience. This finding is clinically significant because some recent studies investigating a debriefing intervention on symptoms of depression have reported a tendency towards worsening emotional health. These positive outcomes should allay concerns by some midwives and researchers. Talking with women using the approach detailed in Chapter 3 is likely to have some benefits and will not harm women wishing to discuss their birth experience(s).

The design of the intervention may be a critical factor in reducing levels of emotional distress. The majority of other studies have used counselling interventions without success but this is the first report of an intervention that was overtly based on the views of women and those working with childbearing women. It seems important to provide women with more than one opportunity to debrief their birth experience. The second opportunity should be provided after they have had enough time to begin their physical recovery and to reflect to some extent on the birth experience (or start developing a birth narrative). Furthermore, debriefing should not only involve listening, and/or reflection and paraphrasing, but should be a process of actively engaging with women in a supportive way to help them make sense of the birth experience and reactions to it.

The results of this study suggest that more work is needed regarding the architecture of PTSD symptoms following childbirth and the nature of the trauma. Studies examining the symptom structure of posttraumatic stress reactions following childbirth would assist in the further development of effective interventions and highlight differences and similarities between women’s responses to traumatic childbirth experiences and other sources of trauma. The nature of the trauma, the duration and severity of the trauma, the losses involved, and the interplay between physical damage/pain and betrayal by those expected to provide protection and/or care should be explored to better understand the specific factors in the nature of childbirth-related trauma that impact most on women’s intrapartum and postpartum emotional health.
Measures to reduce obstetric intervention and humanise maternity services should be implemented. The role of a supportive health professional can have a critical impact on the emotional health of childbearing women. Midwives are uniquely placed to fulfil this role. It seems more work is needed to develop midwives’ knowledge and skills in relation to the factors known to contribute to an emotionally healthy birth, such as respecting the woman’s autonomy. Psychological/counselling training should be offered to maternity care providers, especially midwives, to improve their confidence and ability to provide emotional support for childbearing women. Organisational and health care cultural factors that impede the provision of sensitive care need to be addressed.
APPENDIX A: ANTENATAL QUESTIONNAIRE

1. Name:...................................................................................................................

2. Mail Address:........................................................................................................
...........................................................................................................
Contact phone number
During the day: .........................During the evening: ...............................
Mobile phone:..............................
Alternative contact number (e.g. your mother):............

3. How old are you?

Day  Month  Year

4. What is your marital status?
1. Married
2. Single
3. Defacto
4. Widowed
5. Divorced or separated

5. What is your ethnic origin?
1. Caucasian .................................................................
2. Aboriginal &/or Torres Strait Islander ..............................
3. Asian............................................................................
6. Other, please specify .................................................

6. What is the highest educational level you have achieved?

...............................................................................................

7. What is your occupation?

...............................................................................................

8. What is your expected or due date for the birth?

Day  Month  Year

9. Are you expecting twins or triplets?

Yes, twins  Yes, triplets  No, I am expecting a single baby
10. When you first knew you were pregnant, how did you feel?
- Overjoyed
- Pleased
- Mixed feelings
- Not very happy
- Very unhappy
- No particular feelings

11. a) Is this your first baby?
- Yes, first baby (go to Q 11)
- No

b) If NO, how many babies have you had before? (Please include any that were stillborn after 20 weeks of pregnancy)
- One baby
- Two babies
- Three babies
- Four babies or more

c) At the birth of your other children did any of the following happen to you? (Please tick all that apply)
- Caesarean
- Forceps or vacuum delivery
- Breech
- Premature birth (baby born before 37 weeks pregnancy)
- Haemorrhage after the birth
- None of these

12. Have you had any pregnancies ending in a stillbirth, miscarriage or abortion? (Please tick all the apply)
- Stillbirth (after 20 weeks pregnancy)
- Abortion (termination of pregnancy)
- Miscarriage (Including ectopic pregnancy)
- None of these
APPENDIX B: EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)

How Are You Feeling?
At this first visit, I would like to know how you are feeling. Please underline the answer that comes closest to how you have felt in the past seven days. Not just how you feel today.

Here is an example already completed

I have felt happy:
- Yes, all the time
- Yes, most of the time
- No, not very often
- No, not at all

This would mean: “I have felt happy most of the time” during the past week.
Please complete the other questions in the same way.

1. I have been able to laugh and see the funny side of things
   - As much as I always could
   - Not quite as much now
   - Definitely not so much now
   - Not at all

2. I have looked forward with enjoyment to things
   - As much as I ever did
   - Rather less than I used to
   - Definitely less than I used to
   - Hardly at all

3. I have blamed myself unnecessarily when things went wrong
   - Yes, most of the time
   - Yes, some of the time
   - Not very often
   - No, never

4. I have been anxious or worried for no good reason
   - No, not at all
   - Hardly ever
   - Yes, sometimes
   - Yes, very often

5. I have felt scared or panicky for no very good reason
   - Yes, quite a lot
   - Yes, sometimes
   - No, not much
   - No, not at all
6. Things have been getting on top of me
   Yes, most of the time I haven’t been able to cope at all
   Yes, sometimes I haven’t been coping as well as usual
   No, most of the time I have coped quite well
   No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping
   Yes, most of the time
   Yes, sometimes
   Not very often
   No, not at all

8. I have felt sad or miserable
   Yes most of the time
   Yes, quite often
   Not very often
   No, not at all

9. I have been so unhappy that I have been crying
   Yes, most of the time
   Yes, quite often
   Only occasionally
   No, never

10. The thought of harming myself has occurred to me
    Yes, quite often
    Sometimes
    Hardly ever
    Never
APPENDIX C: DEPRESSION ANXIETY AND STRESS SCALE–21 (DASS-21)

Please read each statement and circle a number 0, 1, 2, or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:
0 Did not apply
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of the time
3 Applied to me very much, or much of the time

1. I found it hard to wind down  0 1 2 3
2. I was aware of dryness of my mouth  0 1 2 3
3. I couldn’t seem to experience any positive feeling  0 1 2 3
4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)  0 1 2 3
5. I found it difficult to work up the initiative to do things  0 1 2 3
6. I tended to over-react to situations  0 1 2 3
7. I experienced trembling (eg, in the hands)  0 1 2 3
8. I felt that I was using a lost of nervous energy  0 1 2 3
9. I was worried about situations in which I might panic and make a fool of myself  0 1 2 3
10. I felt that I had nothing to look forward to  0 1 2 3
11. I found myself getting agitated  0 1 2 3
12. I found it difficult to relax  0 1 2 3
13. I felt down-hearted and blue  0 1 2 3
14. I was intolerant of anything that kept me from getting on with what I was doing  0 1 2 3
15. I felt I was close to panic  0 1 2 3
16. I was unable to become enthusiastic about anything  0 1 2 3
17. I felt I wasn’t worth much as a person  0 1 2 3
18. I felt that I was rather touchy  0 1 2 3
19. I was aware of the action of my heart in the absence of physical exertion (e.g. heart rate increase, missing a beat)  0 1 2 3
20. I felt scared without any good reason  0 1 2 3
21. I felt that life was meaningless  0 1 2 3
APPENDIX D: MATERNITY SOCIAL SUPPORT SCALE (MSSS)

For each of the following statements, please *tick one box* which shows how you feel about the support you have right now.

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. I have good friends who support me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. My family is always there for me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. My husband/partner helps me a lot</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D. There is conflict with my husband/partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. I feel controlled by my husband/partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. I feel loved by my husband/partner</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
### APPENDIX E: MINI-INTERNATIONAL NEUROPSYCHIATRIC INTERVIEW (MINI) - POSTTRAUMATIC STRESS DISORDER

#### Part A
Was your experience of birth an extremely traumatic event that included actual or threatened death or serious injury to you or your baby?

| No | Yes |

During the past month, have you re-experienced the event in a distressing way (such as bad dreams, intense recollections, flashbacks or physical reactions)?

| No | Yes |

#### Part B
In the past month:

- Have you avoided thinking about the event, or have you avoided things that remind you of the event?
  - No
  - Yes

- Have you had trouble recalling some important part of what happened?
  - No
  - Yes

- Have you become less interested in hobbies or social activities?
  - No
  - Yes

- Have you felt detached or estranged from others?
  - No
  - Yes

- Have you noticed that your feelings are numbed?
  - No
  - Yes

- Have you felt that your life will be shortened or that you will die sooner than other people, or that your baby’s life will be affected?
  - No
  - Yes

*Are three or more Part B questions coded YES?*

| No | Yes |

#### Part C
Do you have difficulty sleeping (not related to baby needs)?

| No | Yes |

- Are you especially irritable or do you have outbursts of anger?
  - No
  - Yes

- Do you have difficulty concentrating?
  - No
  - Yes

- Are you nervous or constantly on your guard?
  - No
  - Yes

- Are you easily startled?
  - No
  - Yes

*Are three or more Part C answers coded YES?*

| No | Yes |

#### Part D
Do these problems significantly interfere with your work, your relationship with your baby, or social activities, or cause significant distress?

| No | Yes |

**PTSD**
APPENDIX F: FIRST POSTNATAL QUESTIONNAIRE
Postnatal Questionnaire (<72 hours after birth)

Code Number
Date

1. Date of delivery: ________________  2. Baby’s sex: ______________

Baby’s name: _____________________________________________

I would like to ask you some questions about your experiences and the care you received when you were in labour and during the birth of your baby.

3. Where was your baby born?
   1. Hospital labour ward
   2. Operating theatre
   3. Hospital birth centre
   4. At home, or somewhere else not in hospital (please say where)

4. Now, thinking about the day or night when you went into hospital and had your baby, were the staff when you arrived at the hospital:
   1. Very friendly and welcoming
   2. Fairly friendly and welcoming
   3. Not very friendly and welcoming
   4. Can’t remember/don’t know
   5. Not applicable - baby born at home or on the way to hospital

5. How did your labour begin?
   1. It started by itself, with pains/contractions and/or waters breaking (go to Q7)
   2. It was started off, or induced by a doctor or midwife (go to Q8)
   3. No labour (elective caesarean) (go to Q25)

6. If your labour started by itself, what was the first thing that happened?
   1. Waters broke first (go to Q9)
   2. Labour pains/contractions were the first sign of labour (go to Q9)

7. What did the doctor or midwife do to start off your labour?
   1. I had a tablet, pessary or gel inserted into my vagina (Prostaglandin)
   2. My waters were broken (membranes ruptured)
   3. I had a hormone drip into my arm (eg. Oxytocin, not just a glucose drip)
   4. Other method (please describe) ________________________________
   5. Not sure

8. Once labour had started, did a doctor or midwife do anything to speed up labour? (Please tick ALL that apply)
   1. Yes, my waters were broken
   2. Yes, I had a hormone drip into my arm (eg. Oxytocin, not just a glucose drip)
   3. Yes, other method (Please describe) ________________________________
   4. No, nothing was done to speed up labour
   5. Not sure if anything was done to speed up labour
9. a) If your labour was started off (induced) or speeded up (augmented) by your doctor or midwife, did you feel satisfied with the information given to you about why this was necessary?
1. ☐ Yes, happy with the information given (go to Q11)
2. ☐ No, given some information, but would have liked more
3. ☐ No, not given any explanation
4. ☐ Not applicable - labour was not induced or augmented by doctor/s or midwives (go to Q 11)

b) If you would have liked more information, what would you have liked to know more about?

10. Did you feel worried, anxious or frightened when your labour first began?
1. ☐ Yes, definitely
2. ☐ Yes, somewhat
3. ☐ No, not at all

11. How soon after labour began did you start having contractions that were difficult for you to cope with?
1. ☐ Immediately
2. ☐ Within 3 hours
3. ☐ At least 3 hours but less than 6 hours later
4. ☐ At least 6 hours but less than 12 hours later
5. ☐ 12 or more hours later
6. ☐ No contractions - cesarean birth (go to Q25)
7. ☐ No contractions I had were difficult for me to cope with

12. How soon after your labour began was your baby born?
1. ☐ Within 3 hours
2. ☐ At least 3 but less than 6 hours later
3. ☐ At least 6 but less than 12 hours later
4. ☐ At least 12 but less than 24 hours later
5. ☐ At least 24 but less than 36 hours later
6. ☐ 36 or more hours later

13. During labour did you do any of the following to help you deal with the contractions? (Please tick ALL that apply)
1. ☐ Have a shower or bath
2. ☐ Move around or try different positions
3. ☐ Use relaxation or breathing exercises
4. ☐ Have a massage
5. ☐ Listen to music
6. ☐ Watch TV
7. ☐ Other (Please describe)
14. a) During labour, did you use any of the following to help relieve the pain? (Please tick ALL that apply)
1. [ ] Gas and oxygen (Nitrous oxide)
2. [ ] Injection of pethidine (or pain killing drug)
3. [ ] Epidural injection in your back
4. [ ] Homeopathic remedies
5. [ ] None of these (go to Q16)
6. [ ] Used other methods (please describe)

7. [ ] Not sure (go to Q16)

b) Please fill in the columns that apply to you (if none apply go to Q 16)

<table>
<thead>
<tr>
<th>(1) While you were using this, how much did it help to relieve the pain?</th>
<th>Gas and oxygen</th>
<th>Pethidine</th>
<th>Epidural</th>
<th>Homeopathic remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very much</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>A bit</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Not much at all</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) Did you feel under any pressure to use this form of pain relief?</th>
<th>Gas and oxygen</th>
<th>Pethidine</th>
<th>Epidural</th>
<th>Homeopathic remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, a lot</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Yes, a bit</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>No, not at all</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>To the contrary, I felt encouraged not to have it</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Quite the opposite, I felt under a lot of pressure not to have it</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) How do you feel now about having used this method of pain relief?</th>
<th>Gas and oxygen</th>
<th>Pethidine</th>
<th>Epidural</th>
<th>Homeopathic remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pleased about it</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Mixed</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>No particular feelings</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Other, please say what</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
15. Would you describe your pain or discomfort during labour and birth as: 
(Please tick ONE) 
1. [ ] Much worse than expected 
2. [ ] A little worse than expected 
3. [ ] About what you expected 
4. [ ] A little better than you expected 
5. [ ] Much better than you expected 
6. [ ] Uncertain (didn’t know what to expect) 

16. So overall, thinking about what was done to help relieve the pain during labour, were you: 
1. [ ] Very happy 
2. [ ] Happy 
3. [ ] Mixed 
4. [ ] Unhappy 
5. [ ] Very unhappy 

17. a) At any time during labour were you connected to a monitor - an electronic machine which measures your contractions and the baby’s heartbeat? (Tick 2 boxes if 2 types of monitoring used) 
1. [ ] Yes, with a belt around my tummy 
2. [ ] Yes, with a clip direct onto the baby 
3. [ ] No, neither (go to Q19) 
4. [ ] Not sure if connected to monitor (go to Q19) 

b) Why were you connected to the monitor? 
___________________________________________________________________
___________________________________________________________________

c) For what length of time were you connected to the monitor? 
___________________________________________________________________

d) How did you find being connected to the monitor? 
___________________________________________________________________
___________________________________________________________________

18. a) During labour, did the doctor or midwife do an internal vaginal examination to check how your labour was progressing and/or to check the position of the baby’s head? 
1. [ ] Yes 
2. [ ] No (go to Q20) 
3. [ ] Not sure (go to Q20) 

b) If you answered YES, how many times was a vaginal examination done by the doctor or midwife? 
Number of times [ ]
19. What position were you in when your baby was born?
1. ☐ IF CAESAREAN BIRTH, PLEASE TICK (go to Q25)
2. ☐ Propped up leaning back on pillows
3. ☐ Lying on my side
4. ☐ Lying on my back
5. ☐ In stirrups
6. ☐ Sitting
7. ☐ Squatting
8. ☐ On hands and knees
9. ☐ Other position (please describe)

20. Would you liked to have been in another position for birth?
1. ☐ Yes, definitely
2. ☐ Yes, possibly
3. ☐ No, not really

21. a) Did the doctor use forceps or a vacuum extractor to help the baby out?
1. ☐ Yes, forceps
2. ☐ Yes, vacuum extractor
3. ☐ No, neither (go to Q23)
4. ☐ Not sure (go to Q23)

b) How did you find having the doctor help the baby out in this way?

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

22. Did you haemorrhage after the birth?
1. ☐ Yes, lost more blood than expected
2. ☐ Just bled a normal amount
3. ☐ Not sure

23. Did the placenta (afterbirth) come away readily, or did the doctor have to remove it manually (by putting his/her hands into your vagina)?
1. ☐ Placenta (afterbirth) came away readily
2. ☐ Doctor removed placenta manually
3. ☐ Not sure

24. Did you have a general anaesthetic or an epidural either for the birth or immediately afterwards?

a) general anaesthetic
☐ Yes ☐ No ☐ Not sure

b) epidural
☐ Yes ☐ No ☐ Not sure
25. Were you able to hold the baby as soon as you would have liked to after the birth?
   1. ☐ Yes
   2. ☐ No

26. a) Did you have an episiotomy?
   1. ☐ Yes, I had an episiotomy
   2. ☐ No, but I had a tear
   3. ☐ No, didn’t have an episiotomy or tear (go to Q29)

   b) Did you have stitches?
   1. ☐ Yes, had stitches
   2. ☐ No (go to Q29)

   c) How painful was it while they were doing the stitches?
   1. ☐ Very painful
   2. ☐ Fairly painful
   3. ☐ Not very painful
   4. ☐ Not at all painful

   d) Who did your stitches?
   1. ☐ Your own doctor (obstetrician or GP)
   2. ☐ A hospital doctor
   3. ☐ A student doctor
   4. ☐ A midwife
   5. ☐ Not sure

27. Did you know any of the midwives/nurses who cared for you during labour and birth, before you had your baby?
   1. ☐ Yes, very well
   2. ☐ Yes, but not very well
   3. ☐ No, didn’t know them

28. How many midwives/nurses looked after you altogether during your labour and the birth?
   Number of midwives ☐
29. Which of the people listed below were with you at any time …
(a) .. during labour?
(b) .. at the birth?

Please fill in BOTH columns and tick all those that apply

<table>
<thead>
<tr>
<th></th>
<th>(a) .. during labour</th>
<th>(b) .. at the birth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwife/nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your own GP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student midwife</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaesthetist</td>
<td></td>
<td></td>
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<tr>
<td>Paediatrician</td>
<td></td>
<td></td>
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<tr>
<td>Your husband/partner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A friend or relative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your other child/ren</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please say who)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30. a) Was anyone there you did not want to be there?
1. [ ] Yes
2. [ ] No (go to Q34)

b) Who would you rather had not been there?

31. a) Did anything happen during your labour and/or the birth that you would have liked more information about at the time?
1. [ ] Yes, often wanted more information
2. [ ] Yes, sometimes wanted more information
3. [ ] No, never wanted more information (go to Q35)

b) What would you have liked more information about?

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
32. Some of the things women have said about their care in labour and birth are listed below. We would like to know whether you would say the same things about the care you received at the birth of your baby. 
*Please tick ONE box on EACH LINE to show whether you agree or disagree.*

<table>
<thead>
<tr>
<th>(a) The midwives and doctors always kept me informed about what was happening and made an effort to explain anything I didn’t understand.</th>
<th>Agree Strongly</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Disagree Strongly</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Several times decisions were made by the doctors or midwives without my wishes being taken into account.</td>
<td></td>
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<td></td>
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<tr>
<td>(c) I felt pressured to have the baby quickly.</td>
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<tr>
<td>(d) I felt my labour and/or the birth was taken over by strangers and/or machines.</td>
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<td></td>
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<tr>
<td>(e) The midwives and doctors were very encouraging and reassuring.</td>
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</tbody>
</table>

33. Which of the following words would you use to describe yourself while you were in labour? *(Please tick ALL that apply)*
- Confident
- Out of control
- Frightened
- In control
- Helpless
34. In general during your labour and/or the birth, did you find the midwives/nurses: 
(Please tick ONE)

<table>
<thead>
<tr>
<th>Very helpful</th>
<th>Fairly helpful</th>
<th>Some help</th>
<th>Very little help</th>
<th>No help at all</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

PLEASE TICK THIS BOX IF A MIDWIFE WAS NOT PRESENT

35. In general during your labour and birth, did you find the doctor(s): 
(Please tick ONE)

<table>
<thead>
<tr>
<th>Very helpful</th>
<th>Fairly helpful</th>
<th>Some help</th>
<th>Very little help</th>
<th>No help at all</th>
</tr>
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<tbody>
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</tbody>
</table>

PLEASE TICK THIS BOX IF A DOCTOR WAS NOT PRESENT

36. On balance, thinking about what happened to you and what the midwives and/or doctors did, how would you describe your care in labour and birth?

<table>
<thead>
<tr>
<th>Very good</th>
<th>Good</th>
<th>Mixed</th>
<th>Poor</th>
<th>Very poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

37. a) Is there anything you think the doctors or midwives should have done differently or better during your labour and/or the birth?
1. ☐ Yes, definitely
2. ☐ Yes, possibly
3. ☐ No, not really (go to Q40)

b) If YES, please describe what you think might have been done differently or better.

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________

38. Since your baby was born, have you talked to a doctor, nurse or other health professional about how you felt about what happened during your labour and/or the birth?

Yes, I have talked to a doctor/midwife who was present during labour or at the birth

Yes, to doctor/midwife/nurse/other who was not present

No, none

39. a) Would you have liked to have talked more to a doctor/midwife/nurse or someone else at the hospital about how you felt about what happened?
1. ☐ Yes, definitely
2. ☐ Yes, possibly
3. ☐ No, not really (go to Q43)
b) If YES, who would you most like to have talked to?

___________________________________________________________________
___________________________________________________________________

40. Please describe any things about your care during labour and/or the birth that you are …
(a) particularly happy with
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________

(b) particularly unhappy with
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
___________________________________________________________________
41. At any stage during your pregnancy or labour and birth did you think yours or your baby’s life was at risk?
Please specify

___________________________________________________________________
___________________________________________________________________

42. At any stage during your pregnancy or labour and birth did you think you or your baby would be seriously injured or permanently damaged?
Please specify

___________________________________________________________________
___________________________________________________________________
___________________________________________________________________

43. How did you feel about this?

___________________________________________________________________
___________________________________________________________________

___________________________________________________________________
APPENDIX G: ADDITIONAL QUESTIONS

1. How much do you blame yourself for the sort of birth you experienced?
   1. It is all, or almost all my fault
   2. It is mostly my fault
   3. I think I am about 50% responsible
   4. It is partly my fault
   5. It is not really my fault

2. On a scale of 1-10 with 1 being not at all useful and 10 being extremely useful, to what extent was talking to me useful in helping you come to terms with the birth?
   0 = not applicable – had no trouble coming to terms with the birth
   1 not useful……………………….5…………………………10 extremely useful

3. How confident do you feel about being able to cope emotionally with having another baby (including the pregnancy, labour, birth and early postpartum period)?
   1. Not at all, the thought frightens me
   2. To some degree
   3. A fair bit
   4. Considerably
   5. Completely

4. When do you think the initial contact should be made to provide an opportunity to talk about the birth experience?
Information sheet for focus group participants

Study title: Improving emotional care for childbearing women

Investigator: Jenny Gamble, PhD candidate, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph 38755253

Supervisor: Professor Debra Creedy, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph 38755115

Birth is a critical event in the life of a woman. Many women have thoughts and hopes for how the baby will be born. For some women, the birth does not go as they hoped and these women may be distressed following birth. Little is known about the ways to reduce this emotional distress. I am interested in developing a counselling strategy for addressing women’s distressing birth experiences in a way that improves their emotional health.

If you decide to participate you will be involved in a group discussion about your own birth experiences and women’s emotional needs in the six weeks following the birth. It is anticipated that the group discussion will take between 60-90 minutes and the session will be audio-taped.

All information will be treated in the strictest confidence. The information you provide will be transcribed and pseudonyms will be used. The audio tape and transcripts will be kept in a locked and secure place. Pseudonyms, or no names, will be used in any publications. These measures are to ensure your privacy is protected. On completion of the study, I will send you a brief report on the findings.
You do not have to be involved in the study unless you wish to and you may leave the study at any time without explanation. There will be no consequences for you if you decide not to participate or withdraw from the study. I would be pleased to answer any questions you may have and respect your decision if you decide not to be involved.

You may contact Debra Creedy on the phone number listed above if you have any complaints about the conduct of the study or wish to raise any concerns. Alternatively you can raise your concerns with the University’s Research Ethics Officer for Research, Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 38756618.

If you are willing to be involved, please complete the following consent form.
Consent form for focus group participants

Study title: Improving emotional care for childbearing women

Investigator: Jenny Gamble, Ph D candidate, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph 38755253

Supervisor: Professor Debra Creedy, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph 38755115

I ………………………… agree to participate in the study. I have read and understood the information sheet and any questions have been answered to my satisfaction. I understand that I may withdraw at any time without penalty. I understand that any information collected is for the purposes of research and will be treated with the strictest confidence. I have been assured that no information about the study will be published in form that would reveal my identity. I understand that I may contact Griffith University’s Research Ethics Officer, Office for Research, Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 3875 6618, if I have any complaints about the conduct of the research or wish to raise any concerns.

…………………………………..    …………………….
Signature of participant     Date

…………………………………..
Printed name

Mail address:………………………………………………………………………………………………………………..

………………………………………………………Postcode:   …………………….
Information sheet for randomised controlled trial

Title: Improving emotional care for childbearing women

Investigator: Ms Jenny Gamble, PhD candidate, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph: 38755253

Supervisor: Professor Debra Creedy, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph: 38755115

Birth is a critical event in the life of a woman. Many women have thoughts and hopes for how the baby will be born. For some women, the birth does not go as they hoped and these women may be distressed following the birth. Little is known about the ways to reduce this emotional distress. I am interested in testing a method of addressing women’s birth experiences in a way that improves the emotional health of women.

Based on the results of a questionnaire completed after the birth a number of women will be randomly allocated to one of two groups. Women allocated to group one and the women not allocated to either of the two groups will receive their usual care from the hospital. I will contact you by telephone at four to six weeks following the birth and again at three months to ask questions about the birth and your feelings in relation to the birth.

Women allocated to group two will receive their usual care from the hospital. I will contact women in the second group a few days after the birth for a discussion about the birth and their reactions to it. I expect this session will last about forty-five minutes. If you are in group 2, I will contact you again by telephone at four to six weeks following the birth and again at three months.
Both groups will be asked to complete two questionnaires. The first questionnaire will be given to you immediately following your agreement to participate in the study. The second questionnaire will be given to you a few days after the birth of your baby. It is anticipated that the questionnaire will take approximately 15 minutes to complete.

All information will be treated in the strictest confidence. You will be asked to provide a contact address and phone number but you will be given a code number for the study. Only group data, from which no individual could be identified, will be published. These measures are to ensure your privacy is protected. The questionnaires and the personal details sheet will be kept in a locked and secure place. On completion of the study, I will send you a brief report on the findings.

You do not have to be involved in the study unless you wish to and you may leave the study at any time without explanation. Withdrawing from the study at any time will not affect the care provided to you by the hospital. I would be pleased to answer any questions you may have and accept your decision if you decide not to be involved.

You may contact Debra Creedy on the phone number listed above if you have any complaints about the conduct of the research or wish to raise any concerns. Alternatively you can raise your concerns with the University’s Research Ethics Officer, Office for Research, Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 3875 6618.

If you are willing to be involved, please complete the following consent form.
Consent form for randomised controlled trial

Title: Improving the emotional care of childbearing women

Investigator:
Ms Jenny Gamble, PhD candidate, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph: 38755253

Supervisor:
Professor Debra Creedy, School of Nursing, Faculty of Nursing & Health, Griffith University. Ph: 38755115

I …………………………………………………. agree to participate in the study. I have read and understood the information sheet and any questions have been answered to my satisfaction. I understand that I may withdraw my agreement to participate in the study at any time without penalty. I understand that any information collected is for the purposes of research and will be treated with the strictest confidence. I have been assured that no information about the study will be published in a form that would reveal my identity. I understand that I may contact Griffith University’s Research Ethics Officer, Office for Research, Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 3875 6618, if I have any complaints about the conduct of the research or wish to raise any concerns.

………………………………….. ……………………. ………………………….
Signature of Participant  Date   Printed name

Mail Address: .............................................................................

………………………………………………………………………………..Postcode:........................
APPENDIX I: DISSEMINATION OF RESULTS

Refereed publications


  - This paper is to be incorporated into Kathleen Kendall-Tackett revised book on postpartum emotional distress.

  - Summary article on this paper produced in *MIDIRS Midwifery Digest* (2002) 12 (3) 392.

International conference presentations


Creedy, D. & Gamble, J. (2001) The use of debriefing to prevent postpartum emotional distress: A review. 27\textsuperscript{th} Annual International Conference of the ANZCMHN, 1-4 October Melbourne.
REFERENCES


Beech, B. L. (2000). The effects of mistreating women in labour. MIDIRS Midwifery Digest, 10(4), 467-469.


presented at the Second annual conference of the Perinatal Society of Australia and New Zealand, Alice Springs, N.T.


