

The Effect of Postnatal Debriefing
on the Psychological Health of Mothers

by

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Abstract

Considerable enthusiasm and anecdotal evidence exist for the positive psychological benefit of postnatal debriefing to women. The provision of the opportunity to share feelings and perceptions about their birthing, and to gain accurate information from a midwife, is believed to aid emotional recovery from childbirth, particularly for women who have had a negative birth experience. Anecdotal evidence also suggests that labour and delivery are more difficult for women who have experienced sexual abuse. One hundred and forty-nine women were recruited in the third trimester of their pregnancy, and systematically assigned to treatment and control conditions, to assess the effect of midwife-led postnatal debriefing on psychological variables. Background information and psychological variables were assessed in the prepartum using the Symptom Checklist 90-R, Edinburgh Postnatal Depression Scale, State-Trait Anxiety Inventory and Dyadic Adjustment Scale. Birthing information was gathered two days postpartum with the Perception of Birth Scale and Intrapartum Intervention Scale. Psychological variables, with the addition of the Impact of Events Scale, were re-assessed at one month and again, together with the Parenting Stress Index, at three months postpartum. Women in the treatment group received postnatal debriefing, from a midwife experienced in the process, within three days of their birthing. Women in the control group received normal care which did not include a formalized debriefing. Statistical analyses indicated no significant difference between the groups on measures of personal information, depression, anxiety, trauma, perception of the birth, dyadic adjustment or parenting stress at any of the assessment points. There was no significant difference, on birthing measures, between sexually abused and non-sexually abused women. The majority of women reported positively on their debriefing experience. The effect of medical intervention on womens' perceptions of their birthing was evident. Women who experienced less medical intervention and were debriefed, retained more positive perceptions of their birthing over time, than those who experienced less medical intervention and were not debriefed.

Statement of authorship

Except where explicit reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No other person's work has been relied upon or used without due acknowledgement in the main text and reference list of the thesis.

Signature: _____

Date: _____

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Chapter 1: Introduction

A range of life circumstances, experiences, and other factors may contribute to vulnerability to psychological stress and distress at any time of life (Raphael & Sprague, 1996). Specifically, however, there appears to be increased potential for psychological damage for women following childbirth (Raphael-Leff, 1991; Simkin, 1991) even though childbirth is generally a major and positive life event (Boyce & Condon, 2000). Within the current culture of health care there is an expectation that successful labour and delivery should result in a physically healthy mother and baby, and also be a positive psychological experience (Axe, 2000). One would imagine that throughout time such an outcome would be every mother's hope. That it is certainly not every woman's experience is evidenced by the wealth of literature devoted to psychological perspectives of childbirth, and the aetiology of postnatal depression and posttraumatic stress disorder after childbirth, which is explored in the first part of this chapter.

The desire for altruistic helping is a powerful human motivation (McFarlane, 2000) which has led to the development of interventions such as psychological debriefing after exposure to extreme stress or trauma to help those perceived to be in need. However, demonstrating the efficacy of psychological debriefing following potentially traumatising events presents major challenges to researchers, and it is unlikely the resultant controversy will be resolved in the near future (Deahl, 2000). Also, if one looks at the history of debriefing, it is important to note that the modality had its genesis in attempting to address stress, not trauma (Stuhlmiller & Dunning, 2000).

Most recipients of debriefing style interventions are satisfied with what they receive but little work has been done on possible alternatives, and some studies suggest that debriefing might be harmful (Kenardy, 2001). The history of medicine offers many examples of ideologies that have gained general acceptance in the absence of proper scientific evaluation of their validity, efficacy or safety, and in view of the research to date psychological debriefing may fall into this category (Kaplan, Iancu, & Bodner, 2001). Stuhlmiller and Dunning (2000) assert that the ancient medical model of, first, do no harm, does not seem to have permeated the mental health profession as clients are inundated with modalities and protocols that stand no rigour of testing, when the altruistic urge

to help overpowers prudence. Similarly, the same authors propose that debriefing has evolved in a pathologizing model, which may encourage pathology outcomes in a process of medicalization of normal life experience (Stuhlmiller & Dunning, 2000). The consensus view of debriefing as a potential preventative intervention in mental health appears limited by the inconsistency of evidence supporting its effectiveness, and methodologically sound studies directed at examining processes and appropriate populations are a matter of urgency (Morris, 2000). In fact the one thing that writers in the burgeoning body of literature surrounding debriefing style interventions agree upon, is the necessity for sound research (Kaplan et al., 2001; Kenardy, 1996; Raphael, 2000). A comprehensive review of psychological debriefing and the development of postnatal debriefing form the second section of this chapter.

Postnatal debriefing is an intervention developed from psychological debriefing and adapted for use by midwives with the aim of ameliorating adverse psychological effects of the birthing experience. Postnatal debriefing enables a woman to seek and gain information, validate experiences, express anger, pleasure or any previously unexpressed emotions, understand the reasons for unmet expectations concerning her birthing experience, and to plan for future pregnancies (Smith & Mitchell, 1996). The opportunity to discuss, through postnatal debriefing, what happened and why, is believed to offer comfort to those whose birth event did not meet their expectations (Imhof, 1996). Altruistically, postnatal debriefing aims particularly to reduce the psychological distress of women who have experienced birth trauma, and as an educative birth review for others, it enjoys an almost uncritical degree of acceptance in some of the literature. Axe (2000) for example, contends that to promote good psychological care, all women should be introduced to the idea and reasoning behind debriefing by midwives in the prepartum. Axe maintains that postnatal debriefing aids psychological adjustment to motherhood and increases the proportion of secure parent-infant relationships. This writer further asserts that postnatal debriefing facilitates the ventilation of fears, worries and problems postpartum and is a crucial part of psychological care; all this without empirical evidence.

There has been much debate about the psychological effects of birth trauma and medical interventions in childbirth. Conflicting research findings surround the relationship between higher levels of intrapartum intervention, for example, and satisfaction with the birth experience, postnatal depression, postnatal anxiety and the developing mother-infant relationship (Clement, Wilson, & Sikorski, 1999). In compiling evidence-based guidelines for good practice in line with risk management, audit and clinical governance, the role of midwives in providing effective communication to women about their birthing is as important as physical care (Tomlin, 2000). The importance of midwife communication for women's satisfaction with, and sense of control in childbirth is an area of current interest in the field as is the role of the midwife in delivering a postnatal debriefing service to women. That midwives continually seek to improve their practice with the goal of promoting a positive birth experience, and upholding advocacy for all women is evident in the literature concerning the role of the midwife, which makes up the third section of this chapter.

Previous research specific to postpartum women and psychological debriefing is reviewed in the final section of the chapter before the hypotheses for this study are formulated. There is a limited amount of published research in the area, the only large-scale studies having been undertaken in Australia. While there is some conflicting evidence, on the whole existing studies do not endorse the practice of postnatal debriefing as an effective intervention to reduce the experience of depression among postnatal women. Whether postnatal debriefing is an effective intervention to reduce other adverse psychological sequelae of childbirth is yet to be determined. The present study seeks to expand this area of research.

1.1 Psychological Perspectives of Childbirth

Childbirth, traditionally a woman-centred, midwife attended event, has become institutionalized during the twentieth century (Blue, 1991). The contribution of modern obstetric care during this time has been to improve recovery from childbirth and perinatal outcome for mother and baby due to effective medical intervention (Hofmeyr, Nikodem, Wolman, Chalmers, & Kramer, 1991). Prior to the introduction of modern obstetrics both mothers and infants were at risk

of dying during childbirth, and women remain aware that the potential for danger is present (Boyce & Condon, 2000). Notwithstanding such awareness, childbirth has the potential to be a significant stressor due to its painful physical demands, the possibility of medical intervention, specific birth events, physiological and hormonal changes and more generally, the psychosocial adaptation to parenthood and individual preexisting psychopathology (Boyce & Condon, 2000).

Accordingly, the delivery of appropriate emotional care as well as improved physical care has occupied the focus of writers in the more recent era. Simkin (1991), for example, argues that the goal of a positive memory of the birth experience, as well as a safe outcome, should guide the care of women at this time. Fowles (1998) identified concerns of women regarding their labour experience being allied to an overall sense of frustration from pain, lack of control, lack of knowledge and a negative perception of health-care providers. Women's memory of care may also be influenced by the outcome of the birth (Radestad, Nardin, Steineck, & Sjogren, 1998).

The role of emotional support for women in the transition to parenting has been recognized (Blue, 1991) for some time, particularly that of the woman being listened to, and being heard by health professionals (Mauthner, 1993; Small, Brown, Lumley, & Astbury, 1994) nurses (Affonso, 1992) and significant other people in her life (Madsen, 1994; Maloney, 1995; Sheppard, 1994). Clarification of the labour experience is also believed to be useful (Clement, 1998) in the reduction of emotional distress surrounding the woman's perception and memory of her labour. Bondos-Salonen (1998) argues that postpartum care has particular relevance to psychological health as the transition to parenthood occurs slowly, but uniquely and intensely, during the first few days after a first baby is born. Initiatives such as the use of a birth plan (Moore & Hopper, 1995), companionship and support during labour (Hofmeyer et al., 1991; Wolman, Chalmers, Hofmeyr, & Nikodem, 1993), involvement in the decision to undergo caesarean section (Graham et al., 1999) and midwife managed care (Shields et al., 1998; Walker, Hall, & Thomas, 1995) have been shown to affect women's levels of satisfaction with their birthing experience positively.

Psychological distress after childbirth may be manifest as postnatal depression and possibly as a form of post-traumatic stress disorder (Gonda, 1998). A recent English study (Allen, 1999) of 61

women at one month postpartum supports this view, as indicator measures yielded an incidence rate of 12% for depressive symptoms and 21% for post-traumatic stress symptoms, regardless of mode of delivery, parity or satisfaction with the birth. Similarly, 498 Australian women from a large scale study (Henderson, Sharp, Priest, Hagen, & Evans, 1998) when interviewed by a clinical psychologist six to twelve months after delivery, yielded an incidence rate of 5.4% for Stress Disorder, 2% for Panic Disorder and 15.6% for Depression. Postnatal depression is the most widely recognised deleterious psychological consequence of the birthing experience.

1.2 Postnatal Depression

Postnatal depression refers to a range of depressive symptomology of variable severity and prolongation which may be experienced by the mother up to two months after childbirth and persist for as long as a year or more (Albright, 1993). The condition is non-discriminatory as it can be found in all social groups and, to some extent, in all cultures (Maloney, 1995). In terms of severity, postnatal depression lies between baby blues (a transitory condition of irritability, weepiness and depression which affects around 80% of mothers at some time in the few days after birth) and puerperal psychosis, an extreme condition which occurs within a month of birth and affects 0.2% of mothers (Thurtle, 1995). The estimated incidence of postnatal depression is quoted at ranging between 3% and 27% by Milgrom and McCloud (1996). This rate depends on the indicator methods employed and the study population characteristics. Two Australian studies, for example, cite incidence rates of 8.7% (Boyce, Stubbs & Todd, 1993) and 15.4% (Astbury, Brown, Lumley & Small, 1994) using the Edinburgh Postnatal Depression Scale alone (Astbury et al.) or in concert with psychiatric diagnostic interview (Boyce et al.).

Postnatal depression was first classified in The Diagnostic and Statistical Manual III (DSM-III) – Revised, in 1987 (American Psychiatric Association, 1987). Prior to this time there was debate concerning the existence of the condition, with postnatal affective disorder being understood in terms of previous psychiatric history and/or reaction to life events, including the stress of childbirth itself (Watson, Elliot, Rugg, & Brough, 1984). DSM-IV (American Psychiatric Association, 1994) states that should the onset of the episode be within four weeks postpartum then

the specification "with Postpartum Onset" (p. 387) can be applied to current or most recent episodes of Depressive, Manic, Mixed, Bipolar or Brief Psychotic Disorder.

Women suffering from postnatal depression may exhibit symptoms which include depression, anxiety, extreme tiredness, inability to cope and/or over anxiousness about their infant (Maloney, 1995). Maloney describes postnatal depression as the "forgotten problem"; one that is commonly not recognized by health professionals as the mother may attempt to hide her distress from her doctor, health centre sister and partner. There have been numerous studies undertaken in the quest to understand the development of postnatal depression with a view to implementing effective strategies for prevention and treatment. Integral to the understanding of the development of postnatal depression has been investigation of predictive or causal factors.

1.2.1 Predictive Factors of Postnatal Depression

Predictive factors of postnatal depression include biological, medical/obstetric, personal history and, psychosocial characteristics. Hypotheses accounting for the biological basis of postnatal depression have implicated elevated hormonal levels, the rapidly changing levels of hormones in the puerperium, or thyroid dysfunction (Harris, 1994). Hypotheses accounting for the medical basis of postnatal depression include complications of pregnancy, such as diabetes, placenta previa, anemia or hypertension (Burger, Horowitz, Forsyth, Leventhal, & Leaf, 1993), as well as obstetric factors. Delivery by caesarean appears to carry significant psychological risks that cannot be attributed to pre-existing mood or personality (Fisher, 1992). Assisted delivery (caesarean, forceps, vacuum extraction) has been shown to be associated with increased likelihood of postnatal depression in a large-scale Australian study (Astbury, Brown, Lumley, & Small, 1994). Bottle-feeding and caesarean delivery both maintained a significant association with postnatal depression at six weeks postpartum in an earlier British study (Hannah, Adams, Lee, Glover, & Sandier, 1992).

Instrumental and operative delivery may exert a negative influence on the first postnatal contact between a mother and her baby which has persistent adverse maternal correlates (Rowe-Murray & Fisher, 2001). Dissatisfaction with ante natal care, having a first baby after age 34

(Astbury et al., 1994), a difficult childbirth or low birth weight of the infant (Bergant, Heim, Ulmoe, & Illmensee, 1999) have also been associated with postnatal depressive symptoms.

Personal history factors which have been linked to postnatal depression include a woman's poor relationship with her own mother, occupational instability (Murray, Cox, Chapman, & Jones, 1995), anxiety about the pain of labour (Green, 1993), maternal perception of infant temperament (Mayberry & Affonso, 1993) and previous psychiatric history (Gotlib, Whiffen, Wallace, & Mount, 1991). Depressed mood during pregnancy is a strong predictor of depressed mood in the postpartum (Da Costa, Larouche, Drista, & Brender, 2000). Some pregnant women with antenatal depression have shown significant association with substance dependency and experienced difficulties in social environments (Pajulo, Savonlahti, Sourander, Helenius, & Piha, 2001). Anecdotal evidence from health professionals implicates a history of sexual abuse (which elicits a "closed and protective" stance) being linked to dystocia (failure of labour to progress), resulting in caesarean delivery or other major birthing interventions (Madsen, 1994).

Factors which may be understood in a personal and psychosocial context are as widespread as lack of social support, attribution style (Albright, 1993), marital status and satisfaction (Webster, Thompson, Mitchell, & Werry, 1994), an unplanned pregnancy, not breastfeeding, or unemployment in either partner (Warner, Appleby, Whitton, & Faragher, 1996). Elevated trait anxiety, low life satisfaction, lower social class (Bergant et al., 1999) and early postnatal chronic stressors (Séguin, Potvin, St. Denis, & Loiselle, 1999) have also been shown to have a significant relationship with the development of postnatal depression.

The Edinburgh Postnatal Depression Scale (EPDS) was developed as a reliable and valid brief screen for postnatal depression in the community (Cox, Holden, & Sagovsky, 1987). The EPDS is a simple self-report measure, which is acceptable to women, including those who may not regard themselves as unwell, and does not require any specialist knowledge of psychiatry for administration. The scale does not purport to provide a substitute for a clinical assessment of depression. The EPDS is widely accepted in research and community settings and has been used as an indicator and outcome measure into postnatal depression in research (Cox et al., 1987).

The EPDS has been validated repeatedly and enjoys widespread acceptance and use by researchers and health workers alike, as it is a quick and reliable measure that may be used repeatedly to monitor the emotional state of new mothers. Authors (Milgrom & McCloud, 1996; Murray & Carothers, 1990) consistently recommend its use as a screening tool. Australian use of the measure includes an exploratory study which used the EPDS to screen 71 first time mothers and identify those who were at risk of developing postnatal depression (Horan-Smith & Gullone, 1998).

High specificity and positive predictive value of EPDS confirmed that a cut-off score of 12.5 accurately identifies true cases of postnatal depression in a recent Australian study (McMahon, Barnett, Kawalenko, Tennant, & Don, 2001). The EPDS is also used as an outcome measure of intervention. The existence of such a widely accepted measure makes for ease of comparison across studies which is not apparent in areas where a variety of assessment tools are used. Also, as reported by Holden (1996), most women readily accept the EPDS. On a precautionary note, a recent study supported the use of a structured interview to detect period prevalence of the disorder, as the EPDS may incorrectly identify depressive cases due to the fluctuating course of depression reported by many women (McMahon et al., 2001).

In addition to the women who develop postnatal depression, a further 20%, who do not reach the diagnostic criteria of postnatal depression experience some symptoms of depression and/or anxiety which cause distress and dysfunction in the postpartum (Boyce & Condon, 2000). In a general sense anxiety and depression are disorders that may present comorbidly and it has been mooted in the literature that they share a common dimension. A recent Dutch study has identified subscales of both anxiety and depression in the EPDS confirming that anxiety symptoms as well as depressive symptoms may be measured using that instrument (Brouwers, van Baar, & Pop, 2001).

1.2.2 Postnatal Depression and Anxiety

In a general sense depression comprises a number of different states, including anxiety. Symptoms associated with this aspect of the disorder include incessant worry about life and apprehension about the future which do not appear to be triggered by any specific reason (Salameh, 1989). Anxiety impairs the ability of individuals to focus and think clearly (Yapko, 1997). The link

between anxiety and depression is discussed by Higgins (1989), who asserts that anxiety is seldom a unitary disorder but frequently aligns itself with symptoms of depression. Given the diverse and complex levels at which anxiety can work, including the physiological, behavioural, affective and cognitive, it is often associated with other disorders, especially depression. Although depression and anxiety each possess their own unique symptoms, there are many symptoms that are shared by each. Sometimes, anxiety acts a trigger for depression (Higgins, 1989).

In a recent Australian study, 35% of a group of women in residential care in a parentcraft hospital, of whom 62% had major depression, were found to be highly anxious (McMahon et al., 2001). Authors of this study suggested that the label 'postnatal depression' might place unhelpful constraints on the way people think about postnatal distress by limiting the extent to which health professionals address the anxiety symptoms which co-occur. In residential care, for example, simple measures for the management of anxiety could be usefully taught and applied (McMahon et al., 2001). Anxiety in pregnancy conceptualised as an expression of stress has been linked with negative obstetric, neonatal and parenting outcomes similar to depression. Higher levels of state and trait anxiety and depressive symptoms during pregnancy have been reported by Canadian women who also reported depressive symptoms in the postpartum (Da Costa et al., 2000).

The State-Trait Anxiety Index (STAI) has been used in clinical and research settings involving childbearing women (Spielberger, 1983). Originating from state-trait personality theory, state anxiety pertains to subjective, temporary feelings of anxiety (tension, apprehension, nervousness) which may recur in response to a provoking stimuli. Trait anxiety refers to the stable characteristics of the individual in reaction to anxiety, for example, the level at which a situation is perceived as stressful (Spielberger, 1983). Vines and Williams-Burgess (1994) reported strong internal reliability for two groups of 15 mothers, one group at high risk for child abuse and one at low risk for child abuse, using the STAI. Mercer and Ferketich (1990) successfully employed the STAI as part of a battery of tests seeking predictors of parental attachment in high-risk and control mothers and their partners. The STAI state scores have been demonstrated to correlate strongly with the Edinburgh Postnatal Depression Scale (EPDS) at 35 weeks gestation and 6 weeks

postpartum (Green, 1998). STAI trait scores at 16 weeks gestation have also been demonstrated to significantly correlate with EPDS postpartum scores (Green, 1998). Postnatal depression affects the experience of anxiety as well as depression and these effects reverberate through a woman's other close relationships.

1.2.3 Postnatal Depression and the Dyadic Relationship

Woollett and Parr (1997) have identified four psychological tasks for both men and women in the postpartum period on the basis of a longitudinal study of 100 English couples. These are: first, recovery from and making sense of childbirth; second establishing feelings about, and a relationship with, the child; third understanding feelings about oneself; and fourth, adapting to changing relationships within the transition to parenthood. Emotional wellbeing for both parents postpartum may be related to the successful completion of these tasks. For a woman her partner is an influential source of psychosocial support in pregnancy, at delivery, and postpartum, and his readiness for parenthood can have an important influence on the emotional wellbeing of the new family (Wheatley, 1998). Indeed, stress on the woman should be reduced if the father can find his optimal level of involvement in the pregnancy and early parenting (Wheatley).

The quality of the dyadic relationship between a man and a woman is an important element in the transition to parenthood and a robust association between depression and marital distress has been demonstrated (Sullivan-Lyons, 1998). Indeed, dyadic satisfaction was reported to be a strong predictor of postnatal depression by Webster et al. (1994). Contrasting results were reported by McMahan et al. (2001) who compared unsettled infant behaviour in relation to maternal mood and marital satisfaction of mothers in the residential care unit of a parentcraft hospital with those in a demographically matched group at four months postpartum. Criteria for major depressive disorder were met by 62% of women in the residential care group but the groups did not differ on marital satisfaction, as relatively high levels of satisfaction were reported by both groups.

Fathers may also become depressed in the postnatal period. Sullivan-Lyons (1998) has demonstrated in a small sample that first-time expectant mothers and fathers are equally liable to self-report depression. Likewise it has been demonstrated that if a woman is depressed in the first

postnatal year, her partner is significantly more likely to be depressed (Ballard, Davis, Cullen, Mohan, & Dean, 1994). One Australian study comprising 158 dyadic couples (Dudley, Roy, Kelk, & Bernard, 2001) investigated psychological correlates of depression of mothers and fathers in the first postnatal year, using a mixed mainly clinically referred sample, and found depression in one partner moderately correlated with depression in the other. Most of the variance in postnatal and maternal depression was accounted for by neuroticism and differences in perception and focus were apparent between the genders. Depressed males, for example, tended to focus on the dyadic relationship, perception of the mother's personality, and other personal issues, such as her past history, baby blues and coping capacity. Depressed mothers appeared influenced by their own personality, infant related issues and their male partner's psychological state, rather than the state of the dyadic relationship. Dudley et al. (2001) propose that this finding is consistent with other research that women tend to internalise their stress. This is analogous to the findings of Mauthner (1998) who conducted a qualitative study using structured interviews on 18 postnatally depressed women. Results indicated that depressed women felt their partners lacked understanding in regards to their feelings of motherhood and depression.

Another Australian study (Mathey, Bernett, Ungerer, & Waters, 2000) assessed 157 couples prepartum and at three points up to one year postpartum. At most time points antenatal mood and the dyadic relationship were significant predictor variables for the postnatal mood of both mothers and fathers. Considerable variability in the course of depression in the first year postpartum was noted in women with just 8.6% of participants consistently reporting depression at each of the assessment points. Significant positive correlations were evident for both mothers and fathers between level of neuroticism and depression scores. Although the incidence of self-reported depression in fathers was consistently lower than that in mothers, there was an increasing association between reports of depressive symptoms by partners across the first postpartum year. The results of this study support the reality of couple morbidity, in the presence of postnatal depression, which appears to increase over time through the first postpartum year. This finding has serious implications for treatment and preventative interventions (Mathey et al., 2000).

The Dyadic Adjustment Scale (DAS) is a widely used measure of relationship satisfaction which addresses consensus, satisfaction, cohesion, and affectional expression (Spanier, 1989). The DAS has been used to quantify the dyadic relationship in studies related to postnatal depression (Buist & Janson, 1995; Meager & Milgrom, 1996; Milgrom & McCloud, 1996). For example, using the DAS, Buist and Jansen (1995) found a significantly higher level of marital conflict was evident in depressed mothers than in non-depressed controls. Milgrom and McCloud (1996) found mean total DAS scores of couples affected by postnatal depression to be significantly lower than those of controls, in a longitudinal study of parental stress and postnatal depression. Postnatal depression has implications for the mother-child dyad as well as the mother-partner dyad.

1.2.4 Postnatal Depression and Parenting

A mother's postnatal depression has been shown to affect her response to, and care of, her child. Women who are depressed are more likely to show a lack of enjoyment of, and less positive attitude towards, their infant (Webster et al., 1994). They are typically unresponsive to infant cues (Sheppard, 1994) and perceive their babies as more difficult than non-depressed mothers (Mayberry & Affonso, 1993). A significant association between maternal mental stress and moderate to severe feeding, crying, and sleeping disturbances in 35% of infants has been reported (Carmichael, 1992). Postnatal depression affects the amount of interaction between a mother and her infant (Campbell, Cohn, & Meyers, 1995) and depressed mothers are at increased risk of aggression (Beck, 1996), or committing infanticide (Iffy & Jakobovits, 1992) against their children. Indeed, postnatal depression has been effectively used as a defense against the charge of murder (Williamson, 1993).

Women with postnatal depression feel less attached to their infants whom they perceive as demanding rather than reinforcing (Milgrom & McCloud, 1996). The process of attachment between mother and infant is generally viewed as being vital in laying the foundation for future socio-emotional relationships through social, emotional, cognitive and behavioural components. When the mother, as the attachment figure is available and appropriately responsive, the infant develops both confidence in the reliability of others and a view of the self being worthy of affection and care. This secure base in relationships is the foundation of emotional stability (Sable, 1995).

The adaptive, developmental process of attachment is compromised by the presence of postnatal depression. The infants of depressed mothers are thus at risk for the healthy development of the ability to form rewarding relationships in the future (Milgrom & McCloud, 1996). Findings of a recent Australian study (Rowe-Murray & Fisher, 2001) offer clear evidence that hospital practices associated with the mode of delivery may influence a mothers' initial contact with her baby, and affect the first mother-infant contact, where the process of attachment begins. Mothers who delivered their babies by caesarean section experience compromised first contact compared with those who delivered vaginally with or without instrumental assistance.

The longer-term effect of postnatal depression on the care of the infant and on the mother-child interaction is reflected in children as they grow. An Australian longitudinal, epidemiological study found behaviour disturbances, lowered intellectual functioning, and lowered reading ability, of four year olds and eleven year olds, to be significantly associated with maternal depression (Carmichael, 1992). In fact, research findings consistently demonstrate a general adverse effect of maternal depression on children's behavioural and developmental functioning (Beck, 1993). Distress in the mother/infant relationship and related mood disorders such as depression in the postpartum, have important public health significance in light of the body of research evidence which demonstrates possible adverse effects on the social, emotional and cognitive development of children (McMahon et al., 2001).

Women who develop postnatal depression are more likely to have experienced a number of stressors, including negative life events, than women who do not develop postnatal depression. The Parenting Stress Index (PSI) includes a parenting domain, which reflects sources of stress and suggest that potential dysfunction of the parent-child system may be related to dimensions of the parent's functioning (Abidin, 1995). There is also a life stress scale which provides some index of the amount of stress, aside from the parent-child relationship, that the parent is currently experiencing. Postnatally depressed mothers have been shown to score significantly greater mean parent domain PSI scores compared to control mothers (Milgrom & McCloud, 1996).

In summary, postnatal depression can exert a pervasive influence in the lives of women, their partners and their children. While much is known about the predictive factors and effects of postnatal depression placing this knowledge in the context of useful theory, again with the intent of developing effective and proactive prevention and treatment strategies, has occupied much discussion in the literature.

1.2.5 Theoretical Perspectives

General theories of depression may also be applied to postnatal depression. The cognitive view of depression, for example, conceptualises depression as the expression of a negative triad. A negative view of self, the world, and the future leads to depression (Freeman, Pretzer, Fleming, & Simon, 1990). A stress and coping perspective, on the other hand, places more emphasis on the way in which an individual appraises and reacts to stressors in their environment (Sarafino, 1994). Theorists working from other perspectives however, are more specific in their description of the antecedents of postnatal depression.

Theorists working from an anthropological perspective argue that postnatal depression is related to western industrial societies and is perhaps a reaction to social factors (Thurtle, 1995). Feminist authors (Madsen, 1994; Mauthner, 1993) have taken a more qualitative approach by describing what sufferers of postnatal depression experience. Madsen (1994) proposed that pain and anger about the birthing experience, if denied and repressed, may be a precursor to the emergence of postnatal depression. Beck (1993) developed what she describes as a substantive theory of postnatal depression, identifying loss of control as the basic social psychological problem. In a general sense theorists working from a biomedical perspective view all illness on the basis of aberrant somatic processes, such as biochemical imbalances or neurophysiological abnormalities (Taylor, 1995). Hormonal and thyroid dysfunction (Harris, 1994) and medical or birthing complications (e.g., Astbury et al., 1994; Burger et al., 1993; Fisher, 1992) have indeed been implicated in the development of postnatal depression; however, so have a variety of psychosocial factors (see Albright, 1993; Green, 1993; Webster et al., 1994; Murray et al., 1995; Warner et al., 1996). A biopsychosocial model, by comparison to the biomedical perspective works from a

fundamental assumption that views all health or illness outcomes as a consequence of the interplay of biological, psychological and social factors (Taylor, 1995).

Milgrom, Martin, and Negri (1999) describe a biopsychosocial model of postnatal depression, which incorporates cognitive-behavioural and biological theories with those of stress and coping. Risk factors, such as those already described, interact with stressors and personal factors particular to the individual, influencing a woman's ability to adjust to and cope with her situation and the development of postnatal depression. Risk factors are differentially described in this model as 'vulnerability', 'precipitating', 'sociocultural', or 'exacerbating and maintaining' factors.

Vulnerability factors include personality, cognitive style, personal history, relationships and negative life events. Precipitating factors include events surrounding the birth, the appraisal of these, biological elements and the influence of stress moderating variables such as coping style and social support. Sociocultural factors include unrealistic beliefs and cultural expectations. Exacerbating or maintaining factors include maladaptive reactions such as negative cognitions, and negative affective and/or behavioural responses.

Cognitive-behavioural theories of depression highlight dysfunctional cognitions about external events in the cause and maintenance of depression generally. The biopsychosocial model recognises that biological, psychological and social systems are interdependent, so that an event, or factor, operating at one level has the potential to influence systems at other levels. Hence, treatment aimed at minimising exacerbating factors should significantly influence the experience of postnatal depression (Milgrom et al., 1999).

In summary, postnatal depression is a psychological disorder which may occur in women after childbirth. The recognition of postnatal depression as a condition has taken many years. There is an established body of research and literature which attests to the assessment, incidence, effects, and treatment of postnatal depression. Postnatal depression causes distress and anxiety in the mother which may be reflected in her partner, and it affects the dyadic relationship of the woman with her infant, as well as her partner. Postnatal depression is a disorder which lends itself

particularly well to a biopsychosocial perspective, as it has consistently shown in the literature to be multifactorial by nature.

1.3 Post-traumatic Stress Disorder

More recent literature suggests another psychological disorder, with smaller incidence but similarly disrupting effect, which may occur after childbirth, namely, post-traumatic stress disorder. Post-traumatic stress may be understood as the normal reaction of normal people to abnormal events (Parkinson, 1993). Post-traumatic stress disorder (PTSD) is an anxiety disorder which may follow confrontation with an extreme traumatic stressor (Saigh & Bremner, 1999). The essential feature of PTSD, as delineated by DSM-IV (American Psychiatric Association, 1994), is the development of characteristic symptoms following "exposure to an extreme traumatic stressor " (p. 424) or witnessing, or learning about the same exposure experienced by family or close associate. The person's response must involve intense fear, helplessness or horror. In order for a diagnosis of PTSD to be made the characteristic symptoms must be present for more than a month and include persistent re-experiencing of the event (intrusion), avoidance of associated stimuli, numbing of general responsiveness, and increased arousal. The disturbance must cause clinically significant distress in social or occupational functioning. Traumatic events that are experienced directly include violent personal assault, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening illness, but are not limited by definition (American Psychiatric Association, 1994).

However, the original definition of traumatic stressors has been eroded to the point that current appraisal of what constitutes a traumatic event is overinclusive, as it embraces anything from childbirth to surviving the Holocaust (Shalev, 2000). If any event which is unexpected, unacceptable, intense, uncontrollable, and inescapable, carries higher risk of a traumatic response, then it may be that individual, underlying psychological dimensions are more relevant than the reality of the event, to the behaviour that follows (Shalev, 2000). The role of appraisal in any potentially traumatic event is significant as individuals differ in cognitive style and strength of ego defences. Clearly, in a general sense, different appraisals, perceptions and attributions are made by

different people to the same traumatic event (Wilson & Sigman, 2000). Hence, traumatic childbirth may be perceived as a traumatic event by some women and not by others according to their individual cognitive style of appraisal and attribution.

Stuhlmiller and Dunning (2000) argue that stress and traumatic stress are two different phenomena representing different physiological, neurobiological and psychological responses. Stress relates to anxiety and the adrenalin response of fight or flight whereas traumatic stress involves the way in which the brain, in its physical structures and chemistry, takes in information, encodes it, stores it, and is able to retrieve it from memory. Traumatic stress appears to result in a reduction of the hypothalamus-pituitary-adrenal (HPA) gland function, as increased production of cortisol is consumed at a significantly higher rate by glucocorticoid receptors resulting in low cortisol levels. It is this physiological response that can be found in acute stress disorder and PTSD (Stuhlmiller & Dunning, 2000).

PTSD has been reported as an under-recognised complication of difficult childbirth (Goldbeck-Wood, 1996), even though the evidence for its existence is compelling (Reynolds, 1997). Childbirth is a usual event, not outside the range of normal experience for women, but for some the experience of loss of control (Allen, 1998; Ralph & Alexander, 1994), complicated labour (Allen, 1998; Reynolds, 1997), extreme pain and emotion, or the fear of death (Allen, 1998; Charles, 1997) may be potentially traumatising.

1.3.1 Post-traumatic Stress Disorder and Stillbirth

Giving birth to a live baby is a remarkable event in a woman's life which may be attended by both good and bad experiences. Stillbirth is a major tragedy and the care a woman receives during stillbirth can affect her emotional status some years later. A population-based Swedish study of 636 women found that delivery was judged as insufferably hard both physically and psychologically more often after stillbirth compared to live birth (Radestad et al., 1998). Dissatisfaction with care was also more prevalent after stillbirths.

Working from the premise that stillbirth is a significant traumatic stressor, Turton, Hughes, Evans, and Fainman (2001) investigated the incidence of PTSD, using diagnostic interview and

self-report questionnaires, in a cohort study of 66 British women in the pregnancy following a stillbirth. In the third trimester of the current pregnancy 21% of the women met the diagnostic criteria for PTSD, this prevalence remitted to 4% of the women, one year after the subsequent delivery of a healthy baby. Perceived insufficient or uncertain support from partner and family were related to a current PTSD diagnosis. Exposure to traumatic events is associated with the development of comorbid psychopathology. For example, PTSD in the pregnancy following a stillbirth was associated with heightened symptoms of depression (EPDS score) and anxiety (STAI score). Having good emotional support for a woman after a stillbirth may be a protective factor (Turton et al., 2001). The recognition of stillbirth as a traumatic stressor comes more easily than the recognition that for some women childbirth itself may be perceived as a traumatic stressor sufficient to elicit a PTSD reaction.

1.3.2 Post-traumatic Stress Disorder and Childbirth

Factors such as feeling powerless, lack of information, pain, a perceived unsympathetic attitude from the examiner, and lack of consent have been shown to be related to the occurrence of PTSD after other obstetric and gynaecological procedures (Menage, 1993). Gonda (1998) postulates a variant of postnatal depression, which exhibits signs, and symptoms of a trauma based condition. Awareness of the possibility that any woman may be experiencing labour as traumatic should be an important consideration of health professionals (Reynolds, 1997). Elements of a traumatic delivery may also impact on a male partner attending the birth who may experience a profound sense of helplessness while witnessing pain and perhaps injury being suffered by his partner and child (Boyce & Condon, 2000).

Review of the literature concerning PTSD after childbirth reveals a paucity of studies that do not rely on case study or anecdotal evidence (Allen, 1998). A cross sectional study of 1640 Swedish women between one and 13 months after delivery found that 28 (1.7%) met the criteria for PTSD related to the recent delivery (Wijma, Soderquist, & Wijma, 1997). A history of previous psychiatric or psychological counselling, negative cognitive appraisal of the birth experience, nulliparity, and rating the contact with delivery staff negatively were related to a PTSD profile.

Ballard, Stanley, and Brockington (1995) also suggest a likely prevalence rate for PTSD of around 1% of women who have recently delivered.

Two recent English studies suggest that as many as 5—10% of women may experience a high level of distress one month after delivery, with a similar percentage experiencing a medium level of post traumatic type distress at this time (Allen, 1998; Lyons, 1998). These two studies used the Impact of Events Scale IES (Horowitz, Wilner, & Alvarez, 1979) to assess the level and effect of posttraumatic stress in women after childbirth. While the IES cannot be used to diagnose PTSD (Turner & Lee, 1998) it has been used as an indicator measure of distress. There is no strict cut-off point for (IES) scores, however scores less than 8 generally indicate a low level of distress, from 9 to 19 a medium level, and over 20 a high level of distress, on either subscale or as a mean of both subscales (Lyons, 1998).

Allen (1998) screened 145 women at eight months postpartum and reported that six of 20 women who rated their labours as extremely distressing exceeded Horowitz et al.'s (1979) mean of 21 (for females experiencing stress after trauma) and two women reported borderline total scores of 20. Allen (1998) concluded that women were reporting significant symptoms (a prevalence rate of 4.1%) of posttraumatic stress. Lyons (1998) investigated 42 first time mothers assessed at one month postpartum and found four gave scores in the medium distress range (prevalence rate 10%) with one in the high distress range (prevalence rate 2.4%). As the stress symptoms must be present for over one month in order to qualify for PTSD, and symptoms lasting up to one month may indicate another condition (Acute Stress Disorder), the findings of this study need to be viewed with caution.

Both of these studies indicated that feeling “not in control” during the birth was associated with an elevated level of distress afterwards (Allen, 1998; Lyons, 1998). Allen (1998), using grounded theory to conceptualise qualitative data, identified intense feelings of not being in control as the core category relevant to traumatic delivery. Women experienced these feelings in relation to events during the labour, their own behaviour, and being helpless. A difficult pregnancy, an elevated neuroticism score, induced labour, having an epidural (Lyons, 1998), belief that the baby

would be harmed, pain, the reminder of traumatic past experiences and failed attempts to elicit practical or emotional support from the attending staff or partner (Allen, 1998) were associated factors linked to feeling not in control. While neither the mode of delivery nor the level of pain have been shown to be predictive of post-traumatic stress symptoms, associated negative emotion such as feeling out of control, has thus, reflecting the importance of the mother's perception of the birth (Lyons, 1998). Essentially, it is the woman's experience of her birthing which is the etiological agent (Crompton, 1996).

Case studies (Ballard et al., 1995; Ralph & Alexander, 1994; Sonne, Rubey, Brady, Malcolm, & Morris, 1996) and anecdotal evidence which support the hypothesis that PTSD may occur after childbirth are also to be found in the literature. One case study described a woman still experiencing nightmares, intrusive recollections, increased arousal, depressive symptoms and avoidance of contact with her baby, four months after an emergency caesarean section (Ballard et al., 1995). A second case study reported about a woman who believed she underwent a personality change, which resulted in irritability, increased arousal, intrusive recollections and guilt about her delivery by emergency caesarean section, during the year after the birth (Ralph & Alexander, 1994). A third case study concerned a woman still experiencing symptoms of intrusion and avoidance nine years after a long labour and forceps assisted delivery (Sonne et al., 1996).

Consequently, PTSD is now recognised as a possible outcome of childbirth for some women (Boyce & Condon, 2000). Women who have had a previous traumatic birth experience may also bring an anxiety-related association to delivery (Wijma et al., 1997). In fact, some women elect to have a planned caesarean delivery rather than experience labour again (Cranley, Hedahl, & Pegg, 1983). Predisposing factors for traumatic birth may be associated with a woman's personal history as well as other factors of a medical, or psychosocial nature, from the perspective of a biopsychosocial model. Specifically a history of sexual assault has been implicated as a relevant factor.

1.3.3 Sexual Assault and Childbirth

Women who have been victims of sexual assault or sexually abused as children may come to childbirth with the predisposing factor of a history of trauma, according to anecdotal evidence (Madsen, 1994) and case studies (Crompton, 1996). There is a paucity of research in this area possibly due possibly to the sensitivity of ethical issues involved. Rhodes and Hutchinson (1994), however, undertook a field study of seven victims of sexual abuse and described the labour styles of these women as showing extreme reactions to labour, which were linked to PTSD in their appearance. PTSD is associated with evidence of symptoms of intrusion, avoidance, numbing and increased arousal. The extreme labour styles were described as (a) fighting, and included panic, self-defensive posture, misdirected pushing, distress, (b) taking control, such as hypervigilance, demanding control over labour management decisions, (c) surrendering, such as appearing uninhibited and cooperative indicative of disassociation, and (d) retreating, being stoical and emotionless, or confused and disoriented re-experiencing of the abuse (Rhodes & Hutchinson, 1994). It may be that for these victims of sexual abuse fighting and taking control are indicative of avoidance and increased arousal, and similarly, that surrendering and retreating, are indicative of intrusion and numbing. More research in the area is needed before such conclusions are drawn.

Allen (1998) identified past experiences related to previous traumatic events, previous labours, expectations and other sources as one of three key factors (along with pain and fear for the baby) contributing to women feeling out of control during a traumatic labour experience. None of the participants indicated a history of rape or abuse as influencing their birth trauma during data collection although the information was not directly requested in her study. Again, researchers seek to conceptualize the development of PTSD within the context of a theoretical framework in order to frame appropriate preventative and intervention practices.

1.3.4 Theoretical Perspectives

Psychological theories concerning the development of PTSD include those of stress and emotion (Lazarus, 1999), plus information processing and cognition (Clement, 1998), although explanations concerning genetic predisposition and neurobiological processes (Saigh & Bremner,

1999; Stuhlmiller & Dunning, 2000) have also been proposed. Horowitz et al., (1980) add the element of information-processing to theories of PTSD which propose that traumatic information is re-experienced until the information is fully processed. An interactive model of PTSD described by Lyons (1998) and attributed to Fay (as cited in Clement, 1998) combines environmental and individual factors to explain why some individuals may be prone to PTSD. This then is similar to the biopsychosocial model of postnatal depression already described. Mediating variables, such as personality and social support, interact with additive variables, such as difficult pregnancy or childbirth, and triggering variables, such as sexual abuse or previous childbirth, to produce a PTSD reaction which is beyond a simple combination of the mediating and additive variables.

In formulating a theory of PTSD, Lazarus (1999) places considerable emphasis on the relationship of the person and their environment suggesting these factors work in tandem to predict whether an individual will be traumatized or not. Individual differences, such as personality characteristics, influence the outcomes of an environmental threat so that while some individuals feel they are unable to cope with a particular condition and show considerable symptoms of PTSD, others will develop few or no stress symptoms and manage effectively. Support for this perspective comes from Turton et al. (2001) who examined the prevalence of PTSD in the antenatal and postnatal period following stillbirth. They contributed some of the variation of their research findings to the diverse range of pre-trauma factors, variations of which may have contributed to greater rates of stress. Such factors included personality, socio-economic history, family history and so on. Furthermore, these authors suggest that difficulties arise when studying PTSD because of the diversity of the traumatic event which can show variation in its severity duration and sequelae in its presentation (Turton et al., 2001).

Wilson and Sigman (2000) also comment on the person-environmental model of traumatic stress by highlighting the importance of cognitive style in the assimilation and processing of the stressful event. The variation of individual processing during and after (i.e., recall, memory) traumatic events greatly contribute to the manner in which an individual will respond to this experience.

In summary, a percentage of women may exhibit symptoms of PTSD after childbirth even though in the view of attending professionals their experience was within the normal range of childbirth (Weaver, 1997). A small but developing body of literature is concerned with the recognition, support, and treatment of women thus affected. Where support is concerned, encouraging women to discuss their birth experience may be useful (Reynolds, 1997) and, perhaps the most important postnatal psychological support that can be offered is listening to the woman (Charles, 1997). A qualitative analysis of data collected from the study by Allen (1998) indicated that thinking and talking about the traumatic event following labour, to gain knowledge and emotional support, were effective in reducing distress. Women who avoided thinking and talking about their labour in the Allen (1998) study continued to show distress 10 months later.

1.4 Perception and memories of childbirth

A woman's perception and memory of her birth experience may be factors which lead to later psychological effects in the same way that other cognitions relating to appraisal effect the development of PTSD. Green (1993), for example, found anxiety about the pain of labour to be a strong predictor of negative experiences during labour, lack of satisfaction with the birth and higher scores on the EPDS in a prospective study of over 700 English women, assessed a month before and six weeks after their birthing. Cranley et al., (1983) used the Perception of Birth Scale (POBS), designed by Marut and Mercer (1979), to compare perceptions of the birth experience of 122 American women of whom 40 were delivered vaginally and 39 delivered by emergency, with 43 by planned caesarean section. The three groups differed significantly in their perceptions of the birth experience, with those women experiencing emergency caesarean having the most negative perceptions (Cranley et al., 1983).

Results of the Cranley et al. (1983) study are supported by an Australian prospective longitudinal study which investigated the psychological impact of operative obstetric interventions on 272 nulliparous women assessed in late pregnancy and again at a mean of five weeks post delivery (Fisher, Astbury, & Smith, 1997). Results demonstrated significant adverse psychological effects (deterioration in mood and deterioration in self-esteem) for women who had delivered by

caesarean section as compared to women who had spontaneous vaginal deliveries. Fisher et al. (1997) concluded that operative intervention in a woman's first delivery leaves her vulnerable to posttraumatic stress, depression or a grief reaction. A more recent Australian study reported that less optimal first contact between mothers and their babies was associated with elevated mood disturbance for the mother in the early postpartum period, an effect that persisted until eight months postpartum (Rowe-Murray & Fisher, 2001).

Interestingly, a study by Mercer (1985) found that women's perceptions of their birthing experience was somewhat regulated by their age at the time of giving birth. In this study, perception of birth was gauged at four intervals postpartum up until the first year for 294 women. Of these women, those aged between 15 to 29 showed a positive relationship between their birth experience and maternal behaviour in the first year postpartum than mothers over the age of 30. The younger women in this study, the teenage groups, reported being more scared than their older peers during delivery. Perception of the birth experience was not found to be a strong predictor of maternal behaviour in the older participants.

Research by Simkin (1991) further attests the long term psychological impact of child birth on women. In this study, data was obtained from questionnaires and interviews shortly after birth and then again fifteen to twenty years later. In recalling the birth experience some years later, the memories were vivid and detailed, some to the point of precision. Long term feelings of control over their birthing experience, for example, irrespective of the difficulties associated with the birth, remained an important issue for women. These women also held positive memories of the medical care of the doctors and nurses during their birth. The opposite was true for women whose requests were ignored. They felt anger and disappointment even in the years after the birth at not being considered in birthing discussions with the nursery and medical professionals.

A similar finding was apparent in the Wijma, Soderquist and Wijma (1997) study where 28 women of a sample of 1640 women who had given birth experienced PTSD. In general, these women rated their interaction with the medical staff during labor and delivery as less adequate, and their cognitive appraisal of the birth more negative than women who did not suffer from PTSD.

Recognition of the impact of stressors on mental health has led to the development of prevention initiatives (Raphael & Sprague, 1996). Allen (1998) suggests that maternity professionals should attempt to produce an environment that provides optimal support and feelings of being in control for women. At the same time they should be aware that women may develop PTSD symptoms, so that appropriate screening and interventions can be offered. Strategies such as accessing emotional and practical support, being able to talk through their experience, and gaining information about their labour, led to distress being short-lived for women who had experienced traumatic birth in Allen's study. On the basis of this result Allen (1998) suggested it may be appropriate for midwives to provide interventions shortly after labour to prevent development of PTSD symptoms. Psychological debriefing is a relatively recent example of an initiative and intervention, which is based on a psychological model. This groups approach was developed during the 1980's, and was adapted for use with emergency personnel following large-scale disasters. More recently it has been used with victims of trauma (Rose, 1997).

1.5 Psychological Debriefing

Psychological debriefing had its genesis in group discussions with troops after battle which were instigated as a collection source of primary data, by the chief historian of the United States army in World War II, Brigadier General Marshall. These discussions lasted several hours, took place soon after combat, and recognised that no individual had the whole story of what had occurred during the battle. Gathering a group narrative enabled participants to formulate a coherent whole of what had actually occurred, and their place in it, through disclosing their experience and comparing it with others in a non-judgmental environment (Shalev, 2000). The opportunity of acknowledging grief, ventilating emotion, and constructing a coherent whole of the experience appeared to be beneficial in increasing morale and self-esteem (Rose, 1997) even though the method consisted of a cognitive review of the events without any attempt to address their psychological impact (Kaplan et al., 2001). Shalev (2000) was able to replicate this effect to some extent more recently, in sessions of two and half-hours with soldiers on the Lebanon front. These sessions resulted in a statistically significant reduction in anxiety, and increase in self-efficacy.

Current and popular models of the group approach are critical incident stress debriefing (CISD), critical incident stress management (CISM) and psychological debriefing. CISD (Hartman & Lewis, 1994) is a group process of seven distinct phases (introduction, facts, thoughts, feelings, symptoms, teaching and conclusion) which are worked through sequentially. Group interventions of this nature are increasingly being used with individuals following trauma (Rose, 1997). CISM is a comprehensive, systematic, multicomponent approach with intervention for the individual, groups, and the environment (family, organisation, community) (Mitchell & Everly, 2000). It includes pre-education, stress inoculation, individual crisis intervention, on scene support debriefing, significant support services for families, follow up services and professional referrals as necessary. This broad spectrum of interrelated CISM interventions has demonstrated consistently positive outcomes in studies on multicomponent crisis intervention strategies (Mitchell & Everly, 2000). A recent prospective field study, for example, investigated post-trauma morbidity in employees who had experienced armed robbery (Richards, 2001). The study compared an integrated CISM approach incorporating CISD, with CISD as a stand alone group intervention, finding that the CISM group had significantly less post-trauma morbidity 3-12 months post raid. The authors conclude that CISD embedded within an integrated CISM system can significantly reduce the levels of long-term morbidity in crime victims compared to a stand alone CISD intervention. Conducting methodologically rigorous research of group debriefing is extremely difficult, given that group trauma generally occurs in unpredictable and chaotic circumstances (Deahl, 2000).

The model of psychological debriefing proposed by Dyregrov (1989), is similar to CISD but includes the accessing of sensory information, and gives more attention to individual reactions and the normalization of reaction to trauma. Discussing sensory impressions is thought to be especially important as these can become the basis for intrusive thoughts which form one of the diagnostic criteria for PTSD (Alexander, 1998). Psychological debriefing aims to prevent the development of permanent emotional injury by enabling normalising cognitive appraisal and emotional processing of the traumatic experience (Kaplan et al., 2001). Efforts to minimize long-term morbidity

following trauma has led to calls for the routine provision of psychological interventions for victims of trauma. Whether or not the interventions work remains strenuously contested (Deahl, 2000). Originally a group process for emergency personnel after exposure to a critical incident or disaster, psychological debriefing has been transferred to the individual context as well. Debriefing has extended far beyond its original contexts and is now widely applied to almost any life experience but, while there is much belief, goodwill and theoretical development, there is a dearth of systematic hypotheses building on established science, tested in empirical studies with strong methodologies (Raphael & Wilson, 2000).

Controversy concerning the efficacy of debriefing abounds. Debriefing may accentuate the stress response, causing prolongation of the HPA gland reaction thus fostering depression (sustained high cortisol) or PTSD (Stuhlmiller & Dunning, 2000). It may even exacerbate the traumatic stress response, by further activating the physiological structures that ultimately result in PTSD. This is due to a lack of understanding of basic tenets of the psychobiology of trauma. Accordingly debriefing ignores the need for a higher level of abstraction and cognitive reasoning, not generally present in the dissociative and concrete mental processing of the traumatized. The debriefing process thus fails to recognize that the reflective approach required only adds to the fears and frustrations of traumatically impaired individuals who may become anxious, confused or shut down in the debriefing process (Stuhlmiller & Dunning, 2000).

By contrast, conveying the optimistic message that, with the support of others, the individual has the inherent coping resources to find meaning in the event, and recovery from the mental injuries it inflicts, the focus changes to the positive aspects of trauma experience (Stuhlmiller & Dunning, 2000). There is no question that some people find value in talking, sharing and expressing emotion but there is disagreement that it is necessary for all people. Irrespective of whether or not debriefing reduces long-term morbidity many individuals find it subjectively helpful at the time (Deahl, 2000).

One of the difficulties in using the term 'debriefing' and studying the efficacy of different applications of debriefing processes is semantic—the word itself has too many connotations

(Wilson & Sigman, 2000). Debriefing may be conceptualized as narrative modality, crisis intervention, psychoeducation, stress management, stress inoculation/therapy or as an integrated intervention. Narrative or talking through of any experience happens naturally—but not for everyone. Re-exposure in talking through an incident may not be appropriate for all people. Re-exposure may have adverse effects for some and perhaps reinforce helplessness to the excessive adoption of victim status in a stressed society (Raphael & Wilson, 2000).

Debriefing has taken on a crisis intervention mantle which may not be appropriate as crisis intervention was formulated using social networks and focussed short-term work when an individual's coping mechanisms could not deal with particular life problems (Raphael & Wilson, 2000). Debriefing as psychoeducation has the potential to educate people about reactions to severe experiences and ways of coping, but perhaps they are learning that everyone needs assistance, thus devaluing human resilience? Stress inoculation aims at preparing emergency workers for critical incident stress as opposed to traumatic stressors and there is some evidence of success for this approach.

The conceptualization of debriefing as therapy highlights the confusion between a model developed for emergency workplace stressors and an intervention alleged to have utility in almost every circumstance. Individual personality and coping styles may interact positively or negatively as there is currently little evidence of debriefing being helpful for critical life experiences and for everyone involved. The original model emphasized debriefing take place as early as possible, that is, within 48 hours but stress and trauma may still be operating at this time. More recent writings (Raphael & Wilson, 2000) highlight the effectiveness of interventions for the acutely stressed that commence 2 weeks or more after the incident.

Kenardy (1996) cautions that although group debriefing models are widely accepted as a means of preventing post trauma psychological distress, the paucity of controlled studies into the effectiveness of stress debriefing warrants a need for vigilance. There may be negative effects and some discrepancy between perceived helpfulness and actual outcomes. Indeed, a systematic review of randomized studies of single session psychological debriefing for the management of

psychological distress after trauma and the prevention of PTSD has revealed no evidence that debriefing reduces psychological morbidity, depression or anxiety (Wessely, Rose, & Bisson, 1999). In more recent writings, Kenardy (2001) expresses concern that adverse effects of debriefing are possible and that there is a need for urgent and careful exploration of the practice. In the absence of demonstrated effectiveness for wide population use it is perhaps safest to consider the application of debriefing only in the contexts for which it was originally developed, that is for stress (not psychological trauma) in emergency service workers. There appears little justification of its use more widely, and indeed there is some cause for concern about any negative effect (Morris, 2000).

Alternatively, in order to assess the effect of one session of debriefing only participants who are likely to benefit from such a limited intervention should be included, and those at greater risk of PTSD excluded, assessed for trauma and offered treatment accordingly (Ekeberg & Hem, 2001). While acknowledging that the trauma of meeting a debriefer for one hour may be comparable to the original trauma, Ekeberg and Hem (2001) are not convinced that a one-hour intervention can unintentionally do harm. Psychological debriefing presently takes into account only single elements of trauma; however, other variables such as coping processes, previous trauma and psychological morbidity should be considered. There is no scientific evidence to support the notion that immediacy enhances the efficacy of psychological debriefing, in fact it may disrupt defences and coping strategies (Kaplan et al., 2001). The confusion as to whether critical incident stress is stress or traumatic stress causes an overstatement in support of the efficacy of debriefing (Stuhlmiller & Dunning, 2000).

The extent to which debriefing has become a routine response to traumatic incidents is a testament to the effectiveness of the protagonists of debriefing in Australia. But this ignores the problem of scientific credibility of the technique, particularly in effectiveness (Morris, 2000). A Debriefing Consensus forum conducted by the National Centre for War-related PTSD in 1996 could not reach a final consensus view about debriefing. The forum did reach a consensus view, however, that those conducting debriefing should be knowledgeable and skilled health

professionals and that there is a need for uniform standards of training, supervision and experience. There was general agreement that the brief nature of debriefing and its timing so soon after traumatic incidents was unlikely to produce a substantial effect on long term consequences of traumatic exposure (Morris, 2000). Critical authors contend that models of debriefing are grounded in the theoretical orientations of learned helplessness. An assumption of potential post-incident difficulty encourages individuals to become sensitised towards vulnerability while significantly less attention is paid to strengths, resilience and positive outcomes (Stuhlmiller & Dunning, 2000). Despite controversy surrounding psychological debriefing and its provision at either a group or individual level, the practice has filtered through to a variety of civilian settings, including that of postnatal care for women (Stuhlmiller & Dunning, 2000).

1.6 Postnatal Debriefing

The evolution of postnatal debriefing as a tool for assisting women after childbirth has grown from the earlier uncritical acceptance of psychological debriefing being transferred from a group to an individual level. Authors such as Ball (1988), for example, suggested that providing women with the opportunity to integrate their birth experience through education about that experience might be beneficial in strengthening psychological processes. Similarly Raphael-Leff (1991) proposed that the process of re-examining the birth, like a postpartum debriefing, would help women to evaluate and integrate this extraordinary event into their particular everyday life experience.

In 1992 a service called Birth Afterthoughts was initiated in Winchester, UK for women who had unanswered questions and unresolved feelings about their birth experiences, giving them the opportunity to talk with a midwife and to see their birthing notes and gain information (Charles & Curtis, 1994). It is interesting to note that Affonso (1992) earlier reported the frustration and anger of women at not being allowed information after childbirth. Assumptions about what a woman wants to discuss at the Birth Afterthoughts service are invariably wrong, though a detailed account of the labour and delivery has been found central to most discussions (Charles & Curtis, 1994).

A similar service followed in Oxford where the maternity clinical director included in the bid for funding that the service could be a useful risk management tool with the potential to reduce the

number of complaints (Imhof, 1996). This indeed proved to be the case as 54% of the 46 women who approached the service in the first year, had potential grounds for complaints. However, none did register a complaint and instead they expressed their satisfaction at being able to talk through their concerns (Imhof, 1996). Issues included the need for information, discussion of unmet expectations and failures to communicate. Extremely high expectations surround pregnancy and birth, and when these are not met, some women are left feeling unfulfilled or with a sense of failure. These feelings can linger unresolved, even for many years, in the experience of the Oxford service (Imhof, 1996).

None of the initiatives where midwives publicised their availability to discuss birth and related issues with women, who have unresolved feelings or unanswered questions in an unlimited time period after birth, claimed to have used structured debriefing. Nor were they intended as formal studies, however they provide anecdotal evidence that such a service is valued by the women who choose to use it (Alexander, 1998). The midwives from the service believe that women should receive accurate and sensitively given information with the opportunity to discuss their feelings at all stages of their care. In reality, this ideal is not always met and sometimes information needs to be repeated when the woman has recovered from the birth (Charles & Curtis, 1994).

The response of women to this and similar schemes (Friend, 1996; Westley, 1997) led to the notion that perhaps psychological debriefing would help the emotional adaptation of women following miscarriage (Lee, Slade, & Lygo, 1996) or traumatic birth. Mothers of higher risk infants had reported higher levels of emotional distress, depressive symptomatology, more concern about themselves and their baby, more difficulty in expressing affection towards their baby and greater dissatisfaction with their social support at six weeks after the discharge of their infant from hospital (Bennett & Slade, 1991). Encouraging results of early research led to the suggestion that all maternity units should have the responsibility to develop a service that offers all women the opportunity of discussing their labour (Lavender & Walkinshaw, 1998).

The term “postnatal debriefing” was coined, and usually refers to providing a mother with the opportunity to tell of her own birthing experience and to gain access to information about her

labour from a midwife (Smith & Mitchell, 1996). The aim of this process is to assist the woman's understanding of the event, to allow her to find the "missing pieces" of her experience, to ask questions, and to provide the opportunity for midwives to help with a positive re-evaluation of her birthing experience (Clement, 1998).

Alexander (1998) argues that although individualized debriefing of postnatal women is widely advocated in the literature, lack of clarity in what is meant by the term 'postnatal debriefing' is hampering discussion of this topic and the related evidence base. Debriefing should be conventionally used to describe a structured intervention, such as that described by Dyregrov (1989), and not just any form of active listening or counselling which takes place in the postpartum (Alexander, 1998). Within the confines of this study, postnatal debriefing refers to a midwife-led semi-structured interview with the mother around the third day, postpartum. The interview consists of discussion of the mother's birth experience around the following phases: Introduction, Facts, Thoughts, Feelings, Symptoms, Education, Re-entry and Conclusion (see condensed Debriefing Workshop Manual in Appendix A)

Data from a large scale Australian study (Henderson et al., 1998) led to the conclusion that most women appreciated the opportunity to discuss their childbirth experience with a midwife. Women who were distressed by the birth experience reported the discussion as helpful, while non-distressed women appreciated the educative element of the discussion. However the effectiveness of postnatal debriefing in reducing the incidence of postnatal depression, PTSD, or other psychological sequelae of childbirth has not been established, nor has the responsibility of the midwife in this regard been comprehensively addressed.

1.7 The Role of the Midwife

The Code of Practice for Midwives in Victoria (Nurses Board of Victoria, 1999) states that the provision of continuity of woman-centred care by midwives include health education, support, advocacy and assistance during pregnancy, labour, birth, early infant feeding, parenting and lifestyle adjustment phases. Women trust midwives, believing them to be experts who know best by virtue of their professional experience, knowledge and competence (Bluff & Holloway, 1994). In

fact, women have been shown to be more highly satisfied with midwife managed care than shared care, according to a randomized controlled study of 1300 Scottish women (Shields et al., 1998).

Stamp and Crowther (1994) investigated 222 South Australian women's views of their postnatal care sampled before discharge from hospital and at six weeks postpartum. Results indicated that while some participants perceived midwives negatively, the majority of participants (74%) commented on the helpfulness of midwives in providing emotional support, giving information and answering questions. Women and midwives share perceptions about the importance of their relationship, according to an English study (Proctor, 1998).

Similar results were reported in the Victorian Survey of Recent Mothers (Bruinsma, Brown, & Darcy, 2001). They found that nurse and midwife care during labour and delivery was deemed very helpful by a majority of women. However, opinions were less positive in the postnatal period where women felt midwives were too busy and rushed. Indeed, one of the recommendations made from this study was the need for the provision for greater quality of care postnatally, both before and shortly after, discharge from hospital. More specific recommendations in response to improved postnatal care are provided by Brown, Darcy, and Bruinsma (2001), who suggest that greater postnatal care fostering support and reassurance for women is required. Thus, listening to concerns, acknowledging difficulties and implementing problem solving strategies such as occurs in postnatal debriefing may be a means of improving postnatal care.

The role the midwife can play in helping a woman integrate her childbirth experience with her life experience has been emphasized for some time, yet the value of listening has not been investigated. It is difficult to believe that giving newly postnatal women time and space to talk about their labour and birth can be harmful, however it may be important for the midwife to clarify in her own mind the intended value of facilitating this interaction if she is to invest it with anything more than tokenism (Alexander, 1998). Midwives lack appropriate language and concepts to enable acknowledgement of and response to women's search for information, because they are forced to use a language gained from other disciplines (such as medicine), which results in a language that cannot adequately conceptualize women's and midwives experiences (Tomlin, 2000).

Midwives need to be aware of problems inherent in the use of professional language and jargon which potentially undermine the valuing of women's thoughts and feelings. Differences between women and midwives in relation to values and beliefs embedded in the use of words need to be explored carefully if women and midwives are to develop a shared understanding of meaning (Tomlin, 2000). Furthermore, Tomlin (2000) found, in an earlier unpublished study, that midwives were attempting to debrief from labour without fully understanding what was required. This lack of understanding compounded by lack of skill in the use of questions and reflection needed to explore issues of women's concerns led to lack of confidence. Lack of confidence resulted in midwives resorting to leading questions which effectively silenced women. There are certain words and phrases in common use in midwifery which have the potential to negate women's sense of control in childbirth. Also, if women want more than listening and information, such as reassurances that they will get different care next time, midwives seldom have the authority to provide such a guarantee (Robinson, 1998). However, midwives appear committed to monitoring their own development as practitioners, and are confident in their ability to provide a woman-centred service that is evidence-based and responsive to women's needs (Tomlin, 2000).

Systematic review of randomized controlled trials has established that continuity of care and support during and immediately after childbirth significantly benefits the mother, physically and psychologically, in the immediate postnatal period (Wessely, 1998). Continuity of support by midwives increases satisfaction with the experience of childbirth and decreases fear, anxiety and the need for pain relief (Hodnett, 1999). An Australian survey (Darcy et al., 2001) reported that continuity of midwifery care after the birth greatly increased the chances of women rating their postnatal care positively. Smith and Mitchell (1996) among others (Boyce & Condon, 2000) have suggested that debriefing after childbirth may be an avenue of support that is also a tool for effective risk management of postpartum women. Midwives may be in the best position to be alert to recognize and reduce the effects of posttraumatic stress after childbirth (Charles, 1997).

Bondas-Salonen (1998) conducted a detailed longitudinal study of nine women's postnatal experiences at three weeks, three months and three years postpartum. An important theme that

emerged from these interviews was the need to share the birth story with the midwife, not with their partner. The sharing of experiences and knowledge between the mother and the midwife was seen as very important and confirmed the mother's positive attitudes towards being a good mother. The midwife was perceived as providing an opportunity for further unique understanding of the birthing through the mother's listening, talking with and learning from the midwife's experiences and teachings.

Anecdotal evidence abounds to indicate that debriefing by midwives is valued by those who choose it (Charles & Curtis, 1994; Smith & Mitchell, 1996; Westley, 1997). The fundamental activity of a midwife in debriefing is active listening, acknowledging the words and the feeling of being heard (Smith & Mitchell, 1996). The process of labour debriefing encourages practitioners to be accountable for continuously improving quality and safeguarding high standards of care. It will improve and inform midwifery practice by encouraging reflection, developing knowledge and communication skills and increasing self-awareness (Axe, 2000). Midwives should be the lead professionals. Postnatal debriefing should be presented as an important opportunity that allows time for a woman to discuss personal concerns and feelings. Women should be aware that if they choose, they are entitled to an opportunity to discuss labour events, resolve unanswered questions, and have information repeated in a sensitive and non judgmental way. Such clarification allows the experience of labour to be fully recalled and integrated as a whole with other pregnancy and childbirth memories according to enthusiastic proponents (for example, Axe, 2000).

Boyce and Condon (2000) recommend, in the absence of research addressing whether some form of debriefing can diminish adverse psychological outcomes following childbirth, that efforts to allow the mother to discuss the delivery with a midwife be made, particularly if delivery has been characterized by risk factors. They also suggest more effort should be made to facilitate this, even to the inclusion of the obstetrician, and oppose the adoption of formalized debriefing in the obstetric setting as it may pathologize the birth experience. Participation in such discussion should be voluntarily with a follow-up at 8 weeks for those with risk factors. Where women with postnatal

depression are concerned, the birthing should be explored in discussion, and the possibility of effects to the male partner should be remembered.

It is evident that maternal postpartum adjustment may be affected by factors surrounding the birth event and other life factors. Researchers and writers in the area of women's health are recognizing the need for and the benefit of additional emotional support to women in the postpartum. The support of partner, family and friends may be supplemented by specific emotional support from a midwife, as mothers and midwives share an intensely personal partnership. While midwives are not able to effect the impact of other life factors on the woman in their care, they may influence her appraisal of factors surrounding the birth event. Postnatal debriefing after childbirth by a midwife listener is an initiative that is purported to fulfill this role. It may also serve to mitigate the influence of any negative perceptions of midwifery care, previously noted (Proctor, 1998; Stamp & Crowther, 1994). In order to facilitate a debriefing process the midwife needs to either acquire or further develop basic listening and counselling skills. Considerable enthusiasm for the possible benefits of women having the opportunity to talk with a midwife about their birth experience exists in the literature. Despite this, there are as yet few studies into the effect of postnatal debriefing on psychological variables.

1.8 Previous Research

Published research into the effects of postnatal debriefing have thus far not justified the unequivocal support for the practice which is displayed by enthusiastic adherents to the concept. One of the earlier studies (Lee et al., 1996) tested the hypothesis that women who received a one hour psychological debriefing soon (two weeks) after miscarriage would experience less emotional distress than controls who received routine care. A randomized control study of 39 English women, who wanted the pregnancy, were not taking psychoactive drugs, or under psychological or psychiatric care and who miscarried at a mean of 10 weeks, constituted the sample. The Hospital Anxiety and Depression Scale (Snaith & Zigmond, 1994) and the Impact of Events Scale (Horowitz et al., 1979) were administered at one week and four months post miscarriage. Although the debriefed women felt that psychological intervention had been helpful, statistical analysis showed

only a significant main effect of time, not of intervention, nor any interaction effects. A limitation of this study (in the context of midwife care) was that as the intervention involved a psychologist, not a midwife, conducting the debriefing, women's questions or confusion about what had occurred during their labour could not knowledgeably be addressed.

Published studies of mothers with live births are few and have not found consistent positive effects beneficial of postnatal debriefing. English researchers randomly allocated 120 first time mothers who experienced normal vaginal delivery of a healthy baby to treatment and control groups (Lavender & Walkinshaw, 1998). Women in the treatment group experienced individual interactive interviews of 30—120 minutes duration with a midwife, during which they spent as much time as they needed discussing their labour, asking questions and exploring their feelings. Women in the control group did not experience any intervention. Three weeks postnatally the scores of the two groups on the Hospital Anxiety and Depression Scale (Snaith & Zigmond, 1994) were compared and it was found that women who received the intervention were less likely to have elevated anxiety and depression scores. These data lent support to the view that a midwife-led support, listening, explanation and counselling intervention is capable of reducing psychological morbidity in postpartum women. While this study is of interest in a general sense, it does not deal with those women who experience delivery by caesarean section or other major birthing intervention, both of which are associated with an increased incidence of depression and stress reactions.

A large scale controlled Australian study of 1745 women assessed after delivery and at two, six and twelve months postpartum investigated the effect of a single structured stress debriefing, conducted by a trained midwife (Henderson et al., 1998). There were no significant differences randomly between the assigned groups, randomly assigned to debriefing and standard condition, on measures of depression using the Edinburgh Postnatal Depression Scale (Cox et al., 1987), the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) or the General Health Questionnaire (Goldberg & Hillier, 1979). A limitation of this study was the failure to assess women's antenatal psychological health, mood, or other risk factors of postnatal depression.

Previous psychiatric history (Watson et al., 1984) and antenatal depression (Green, 1990) which are both strong predictors of postnatal depression were not examined, for example, and may have masked any positive effects of the intervention. However, a survey of 628 of the mothers' satisfaction with their postnatal debriefing session found that 67.3% of them had found the session to be moderately to greatly helpful (Henderson et al., 1998).

A more recent controlled study of 1041 Australian women by Small, Lumley, Donohue, Potter, and Waldenström (2000) investigated the effectiveness of midwife-led debriefing in reducing maternal depression after operative childbirth. All participants had given birth by caesarean section, forceps or vacuum extraction and were randomly allocated to standard care or debriefing groups. Those in the debriefing group were provided with a debriefing intervention led by an experienced midwife before discharge from hospital. Maternal depression and overall health status were assessed at six months postpartum using the EPDS (Cox et al., 1987) and the SF-36 (Ware & Sherbourne, 1992). Results indicated no difference between the groups on the measure of depression or on seven of the eight SF-36 subscales. There was a significant difference between the groups on the subscale related to role functioning (emotional) and, as more women in the debriefed group tended to report depression and poorer health than women allocated to standard care, these authors acknowledged the possibility that debriefing may have contributed to emotional health problems for some women.

This study has been criticised on the grounds of the methodology being inappropriate to the subject matter (Enkin, 2000; Powell, 2001; Stallard, 2001). Powell for example, argued that randomized, controlled trials are not able to detect beneficial or adverse effects that happen selectively to as yet undefined subgroups in the population. Given the possibility that some individuals may be damaged by postnatal debriefing it is important to delineate the characteristics of these subgroups which could be better addressed by in-depth qualitative research. In fact, the study was focussed on a defined subgroup of childbearing women whom the literature consistently reports as more significantly vulnerable to postnatal depression, namely those who experience operative childbirth. The authors responded to the criticism replying that the trial was pragmatic

with the intervention designed to be incorporated with standard care if it proved effective (Small et al., 2001).

In summary, there is a limited amount of published research (Henderson et al., 1998; Lavender & Walkinshaw, 1998; Small et al., 2000) on the effect of postnatal debriefing by midwife listeners. Existing studies are limited by not controlling for confounding variables that exist in the prepartum, and by not exploring the range of postnatal psychological variables that may be relevant. The present study controls for variables such as personal history and demographic factors that have been identified as relevant by previous research. Measures of antenatal psychological health, including levels of depression and anxiety, dyadic adjustment, and demographic information, including the experience of sexual abuse are included. The present study extends existing knowledge through consideration of these variables and by adding measures of trauma and parenting stress in the postpartum.

Previous published studies (Henderson et al., 1998; Lavender & Walkinshaw, 1998; Small et al., 2000) have utilized the services of a research midwife and the present study follows this example. While it may be argued that the birthing midwife would be a more effective listener given that she was witness to the woman's experience there are several considerations that work against such an ideal, and not only within the bounds of research. First, in a practical sense an intervention which includes the birthing midwife would be well nigh impossible to co-ordinate in the modern hospital setting. More than one midwife may have been involved in a woman's case, also prevailing shifts, rosters and short hospital stays mean that the birthing midwife may not be back on duty before the woman leaves hospital. Second, if the woman had a negative experience with her birthing midwife or another midwife attending her it may not be helpful for either party to attempt a debriefing process together. The use of a research midwife negates problems of this nature and allows for standardization of the intervention. A research midwife is well qualified to read labour and birthing notes and to answer women's questions. The success of programs such as 'Birth Afterthought' (Charles & Curtis, 1994) illustrates that a non-attending midwives professional knowledge and approachability is appropriate for postnatal debriefing.

1.9 Aims and Hypotheses

The aims of the present study were to investigate the effect of midwife led debriefing on the psychological wellbeing of new mothers, as measured by anxiety, depression, trauma, perception of the birth experience and parenting stress. The following hypotheses were generated on the basis of previous research and anecdotal evidence.

Hypothesis One

Women who have experienced postnatal debriefing will be less likely to develop symptoms of postnatal depression (as measured by the Edinburgh Postnatal Depression Scale), at one and three months post partum, than women who have not been debriefed irregardless of prepartum depressive symptoms (as measured by the Edinburgh Postnatal Depression Scale).

Hypothesis Two

Women who have experienced postnatal debriefing will be less likely to exhibit symptoms of increased state anxiety, from the prepartum level to one and three months postpartum (as measured by State-Trait Anxiety Inventory), than women who have not been debriefed.

Hypothesis Three

Women who have been debriefed postnatally will experience less deterioration in their levels of dyadic satisfaction (as measured by the Dyadic Adjustment Scale), at three months post partum, relative to the prepartum level, than women who have not been debriefed

Hypothesis Four

Women who have experienced postnatal debriefing will be less likely to exhibit evidence of PTSD (as measured by the Impact of Events Scale) resulting from their birth experience, at one and three months postpartum, than women who have not been debriefed, despite the nature of the birthing (as measured by the Perception of Birth Scale and the Intrapartum Intervention Score).

Hypothesis Five

Women who have been debriefed postnatally will have a more positive perception of their birth experience (as measured by the Perception of Birth Scale), at one and three months

postpartum, than women who have not been debriefed, irrespective of the degree of intervention (as measured by the Intrapartum Intervention Scale) experienced.

Hypothesis Six

The experience of labour and delivery (as measured by the Perception of Birth Scale and the Intrapartum Intervention Scale) will be significantly more difficult for women who have been sexually abused.

Hypothesis Seven

Those women who have been sexually abused and who are debriefed postnatally will have significant lower scores on the Impact of Event Scale, at one and three months postpartum, than those who have been sexually abused and have not been debriefed.

Hypothesis Eight

Women who have experienced postnatal debriefing will experience lower levels of parental stress (as measured by the Parenting Stress Index), at both one and three months postpartum, than women who have not been debriefed.

Hypothesis Nine

Women who have been debriefed will rate the experience positively according to the responses on the Feedback after Debriefing Questionnaire.

Chapter 2: Method

2.1 Participants

Participants comprised 149 women from or around a regional Australian city with a population of 60,000 who were recruited to the study, over a three-month period during the third trimester of their pregnancy, with the co-operation of staff from Ballarat Health Services – Base Hospital. Specific inclusion criteria were women in the third trimester of pregnancy who were agreeable to, and capable of, participating in the study. The midwifery unit reserved the right to apply one exclusion criteria, namely, should the birth circumstance of any woman in the control group be such that the hospital's perceived duty of care be compromised by the withholding of debriefing, this woman would be withdrawn from the study, and debriefed. The four local obstetricians in private practice were invited to co-operate with the study (Appendix B). Obstetricians were asked to give a letter (Appendix C), which both outlined the study and invited participation, to private patients who were more than seven months pregnant and intended to deliver their babies at the Base Hospital. Public patients were recruited personally at the Antenatal and Midwives Clinics at the hospital.

Reception or midwifery staff directed women presenting for their 28 week, or later, antenatal check-up at either clinic, to visit the researcher, in a small office adjoining the clinic, about participation in a survey. At this time the researcher introduced herself and each woman was individually and fully briefed about the study, invited to participate, and, if willing, asked to give written consent using the University of Ballarat plain language and informed consent protocol (Appendix D). Partners or family who attended with the woman were included in this meeting and it was emphasized that participation was completely voluntary.

Women who agreed to participate were given the explanatory letter (Appendix C) as well as the first set of questionnaires which were enclosed in an A4 size envelope together with a stamped, addressed envelope for completion and return to the researcher. Women who were unsure about their participation were invited to take the letter and consent form away and to return them by mail

if they decided to participate. Women who declined the invitation to participate were thanked for considering participation.

Overall, 275 women were approached through the clinics, and of these 225 agreed to participate in the study. As well, correspondence was received from four private patients, one declining and three agreeing to participate in the study. Of the 51 women who declined to participate, three had language difficulties, 16 were initially undecided and did not return the consent forms, ten believed they were too busy, one was moving interstate, five said they were “private people”, one did not agree with the idea of the study, and 16 did not give a reason.

The study began with 228 participants and 60 withdrew in the early stages of the project. Five women withdrew because they, or their partner, did not like the questions. Five were withdrawn by hospital staff due to birth circumstances, two had premature babies elsewhere, three moved away from Ballarat, four lost interest, contact was lost with four, and forty two did not complete and return the first set of questionnaires and were automatically withdrawn. At the completion of data collection a further 19 women had failed to return the final set of questionnaires and were withdrawn, leaving a participant population of 149 women.

2.2 Materials

The materials used included a Background Information Questionnaire, the Symptom Checklist-90-Revised (SCL-90-R), the Dyadic Adjustment Scale (DAS), the State-Trait Anxiety Inventory (STAI), the Edinburgh Postnatal Depression Scale (EPDS), the Perception of Birth Scale (POBS), the Intrapartum Intervention Scale (IIS), the Parenting Stress Index Short Form (PSI/SF), a Feedback after Debriefing Questionnaire (FAD) and the Postnatal Debriefing Protocol.

2.2.1 Background Information Questionnaire (BIQ). This questionnaire was designed by the researcher to gain information concerning birth and parenting expectations, previous psychological history and demographic information (Appendix E). The questionnaire consists of 27 items such as “Do you feel reasonably secure financially?” Five potentially embarrassing items relating to depression, anxiety and sexual abuse were optional. Participants were asked to mark their responses in columns headed “yes”, “no”, or, “not applicable”. For the purpose of data

analysis, ‘history of depression’ is a combination of two of these optional items—items 23 and 24—which asked about receiving professional help, or using alcohol or illegal drugs, when experiencing depression. History of anxiety is a similar combination of items 25 and 26.

2.2.2 Symptom Checklist-90-R (SCL-90-R). This scale was used as a pre-measure of psychological symptomatology. It was designed in 1977 by Derogatis (1994) as a 90-item self-report symptom inventory reflecting psychological symptom patterns of community, medical and psychiatric respondents (Appendix F). Respondents are required to read the list of 90 problems people sometimes have and indicate how much a specific problem has distressed or bothered them in the past seven days. Each item is rated on a five-point (0—4) scale of distress, ranging from “not at all” to “extremely”. There are a variety of items, for example: “suddenly scared for no reason”, “feeling lonely”, “headaches” and, “feeling that most people cannot be trusted”.

The SCL-90-R yields nine primary symptom dimensions, as follows: (1) The Somatization dimension reflects distress arising from perceptions of bodily dysfunction, particularly from systems with strong autonomic association. (2) The Obsessive-Compulsion dimension reflects symptoms reflective of this syndrome, focusing on thoughts, impulses and actions that are experienced as unremitting and unwanted. (3) The Interpersonal Sensitivity dimension focuses on feelings of inadequacy and inferiority, particularly in comparison with others. (4) The Depression dimension reflects symptoms of dysphoric mood and affect which are representative of clinical depression. (5) The Anxiety dimension assesses general signs of anxiety, from nervousness and tension, to dread. (6) The Hostility dimension reflects thoughts, feelings or actions that are characteristic of anger. (7) The Phobic Anxiety dimension focuses on the pathogenic and disruptive symptoms of phobic behaviour. (8) The Paranoid Ideation dimension reflects paranoid behaviour characterized by a disordered mode of thinking such as in delusions, projective thoughts and suspiciousness. (9) The Psychoticism dimension reflects indications of a withdrawn, isolated and schizoid lifestyle.

In addition, the SCL-90-R yields three global indices of distress: (1) The Global Severity Index indicates the current level or depth of disorder and may be used as a single summary score of

distress, (2) The Positive Symptom Distress Index reflects the average level of distress reported for symptoms that were endorsed, and (3) The Positive Symptom Total reflects the number of symptoms endorsed regardless of the level of distress reported. The Global Severity Index (GSI) is most commonly used where a single summary measure is required (Derogatis, 1994).

Internal reliability coefficients range from $\alpha = .77$ to $\alpha = .90$ for the nine primary symptoms and test-retest reliability at 10 weeks for these symptoms range from $\alpha = .68$ to $\alpha = .83$. The SCL-90-R has been used as a measurement of change in clinical cohorts and as outcome measures of psychotherapeutic, psychopharmacology and other treatment research (Derogatis, 1994). In this study the Cronbach alpha coefficient ranged from $\alpha = .73$ to $\alpha = .87$ for the nine primary symptoms, showing good internal consistency for the sample.

2.2.3 The Dyadic Adjustment Scale (DAS). Spanier (1989) developed this scale as a measurement of dyad relationship, or adult partnership quality (Appendix G). The 32-item self-report questionnaire is comprised of statements and questions about the dyadic relationship. Several items are devoted to the extent of disagreement or agreement present in the dyad, for example “making major decisions”, where items are rated on a six point scale ranging from 0 = “always disagree” to 5 = “always agree”. Scores for individual items are transferred to a scoring grid and summed to achieve a total score for dyadic adjustment, and for each of the subscales. There are four subscales intended to reflect (a) Dyadic Consensus, (b) Dyadic Satisfaction, (c) Dyadic Affectional Expression and (d) Dyadic Cohesion. Dyadic Consensus assesses the extent of agreement between partners on matters important to their relationship. Dyadic Satisfaction measures the amount of tension in the relationship, and the extent to which the individual has considered ending the relationship. Affectional Expression measures the individual’s satisfaction with the expression of affection and sex in the relationship. Dyadic Cohesion assesses the common interests and activities the couple share together, such as outside interests, calm discussion, and exchanging ideas (Spanier, 1989).

Strong internal reliability has been reported for this measure by Spanier (1989), with the total score for dyadic adjustment $\alpha = .96$, and the subscales ranging from $\alpha = .73$ to $\alpha = .94$, with a

median of $\alpha = .86$. The scale has been shown to have good criterion related validity when comparing divorced and married groups of people (Spanier, 1989). In the present study the Cronbach alpha coefficient for dyadic adjustment was also strong, $\alpha = .93$, with the subscales ranging from $\alpha = .66$ to $\alpha = .91$, and a median of $\alpha = .81$.

2.2.4 The State-Trait Anxiety Inventory for Adults (Form Y) (STAI). Spielberger (1977) in collaboration with Gorsuch, Lushene, Vagg, and Jacobs developed the State-Trait Anxiety Inventory for Adults (Appendix H). The inventory is a measure of anxiety in its two dimensions; as a trait, or relatively stable individual proneness to anxiety, and as a state, or present experience of anxiety (Spielberger, 1983).

The STAI is a 40-item, two-page self-evaluation questionnaire. The first page consists of items 1—20, and is labeled as Form Y-1 (state); the second page contains items 21—40 and is labeled as Form Y-2 (trait). Items are presented as statements which people have used to describe themselves. For example: “I feel calm” (Form Y-1) and “I feel pleasant” (Form Y-2). Respondents are directed to circle the appropriate number in the column that indicates how they feel in the present moment (Form Y-1), or how they generally feel (Form Y-2). Response alternatives range from 1 = “not at all” to 4 = “very much so”, and are summed to gain a total score for anxiety, and for each of the subscales.

Hundley, Gurney, Graham, and Rennie (1998) explored the stability of the STAI in 27 women at 34 weeks gestation and 10 days postpartum, and questioned the suitability of the STAI around the time of delivery. Test-retest reliability coefficients, gauged at three postnatal time intervals (17—33 days; 45—56 days; 57—91 days) ranged from $r = .22$ to $r = .87$ in that study. Vines and Williams-Burgess (1994) reported strong internal reliability ($\alpha = .88$) in a study of mothers at high or low risk for child abuse using the STAI. Mercer and Ferketich (1990) reported strong internal reliability coefficients, ranging from $\alpha = .92$ to $\alpha = .95$ for state anxiety, and from $\alpha = .90$ to $\alpha = .93$ for trait anxiety, when using the STAI as part of a battery of tests seeking

predictors of parental attachment. In the current study the Cronbach alpha coefficient was also strong; $\alpha = .93$ for state anxiety and $\alpha = .94$ for trait anxiety.

2.2.5 The Edinburgh Postnatal Depression Scale (EPDS). Cox (1986) developed the Edinburgh Postnatal Depression Scale as a screening instrument for postnatal depression (Appendix I). Originally a 13-item self-report measure, the scale was validated against a semi-structured psychiatric interview. Subsequent factor analysis resulted in abbreviation of the scale to its present 10-item format without impairment of its effectiveness as a screening instrument (Cox et al., 1987).

The 10 items in the scale are presented as statements that relate to depressive symptoms, for example: "I have looked forward with enjoyment to things". Each statement is accompanied by four possible responses, scored on a four point (0—3) scale, ranging from 0 = "as much as I ever did" to 3 = "not at all". Respondents underline the answer which comes closest to their feelings in the past seven days. The scores for each of the 10 items are then summed, yielding a total score ranging from 0—30. A threshold score of 12 or 13 is indicative of depression in postnatal women. Mean antenatal scores on the EPDS have been found to be higher than mean postnatal scores on the same measure by Murray and Carothers (1990), who recommend a score of 14 or 15 as the cut-off point for antenatal women. A score of 12 has been used to identify depression in postnatal women (Milgrom & McCloud, 1996).

The validity of the EPDS is generally reported in terms of sensitivity (the percentage of true depressed cases identified), specificity (the percentage of true non-depressed cases identified), and positive predictive value (the percentage of all cases positively identified as depressed correctly identified as such). Cox et al. (1987) reported EPDS sensitivity of 86%, specificity of 78% and positive predictive value of 73%.

Strong validity for the scale has been reported worldwide, with sensitivity and specificity rates ranging from 67.7% (Murray & Carothers, 1990) to 100% (Boyce, Stubbs, & Todd, 1993). The scale has also been validated for use with non-postnatal women, yielding satisfactory sensitivity (79%) and specificity (85%) (Cox, Chapman, Murray, & Jones, 1996). Boyce et al.

(1993) validated the EPDS for an Australian sample of 103 postpartum women, using the Diagnostic Interview Schedule. They reported EPDS sensitivity of 100%, specificity of 95.7% and positive predictive value of 69.2% for this sample. In this study the Cronbach alpha coefficient was $\alpha = .87$.

2.2.6 Perception of Birth Scale (POBS). The Perception of Birth Scale (Appendix J), originally called the Questionnaire Measuring Attitudes about Labour and Delivery, was developed by Marut and Mercer (1979) as an adaptation of an earlier 15-item questionnaire designed by Samko and Schoenfeld (1975). The questionnaire was designed to measure maternal perceptions of the labour and delivery experience and is referred to in the literature as the Perception of Birth Scale (Fawcett & Knauth, 1996). This is a 29-item questionnaire which requires women to respond to questions about their birth experience on a sliding scale of 1-5, ranging from 1 = “not at all” to 5 = “extremely”, “How pleasant was the feeling state you experienced during delivery?” is an example of the questions. Scores ranging from 29 to 145 may be obtained, with higher scores reflecting more positive perceptions and feelings about the birth experience.

Internal reliability coefficients of the instrument have been reported at $\alpha = .83$ for 50 cases (Marut & Mercer, 1979), and $\alpha = .86$ for 360 cases (Fawcett, Pollio, & Tully, 1992). Fawcett and Knauth (1996) conducted an exploratory factor analysis of the scale which demonstrated strong reliability of $\alpha = .85$ for a 25-item version of the questionnaire with 320 women. In this study the Cronbach alpha coefficient was also strong at $\alpha = .86$.

The scale was selected for use in this study to measure whether postnatal debriefing influences the woman’s perception of her labour and delivery experience over time. Previous studies which have employed the Perception of Birth Scale have investigated the relationship between psychosocial and perinatal variables, and the perception of childbirth (Mercer, Hackley, & Bostrom, 1982) and the relationship of the birth experience to later mothering behaviours (Mercer, 1985). More recently Allen (1999) has used the scale when investigating postnatal debriefing.

2.2.7 Intrapartum Intervention Scale (IIS). The Intrapartum Intervention Scale (Appendix K) was devised by Clement et al. (1999) as a means of quantifying the degree of intervention in

childbirth, based on the woman's experience. The scale was developed on the basis of an investigation involving 1,714 English women's perceptions of the medical procedures they experienced during childbirth. Women's responses to questions about their delivery were sought six weeks after they had given birth.

The scale consists of 20 items relating to medical procedures associated with labour and delivery. For example: "Did you have your waters broken by a midwife or doctor?" Respondents place a tick in one of the columns headed "yes" (scored as 1), "no" or "don't know" (both scored as 0). The total individual Intrapartum Intervention Score is calculated by multiplying the women's raw score (either 0 or 1) for each item with the calculated score for that item which is presented in a table from Clement et al. (1999) (see Appendix L). The resulting scores are then summed. The IIS for the women in the original normative sample ranged from 0—86 with a mean of 33.5 ($SD = 17.6$) and a median score of 31. The alpha coefficient for the scale in this study was $\alpha = .66$.

2.2.8 Impact of Events Scale (IES). The Impact of Events Scale (Appendix M) was designed by Horowitz et al., (1979) as a measure of traumatic stress based on current subjective distress, and experiences of intrusion (re-experiencing) and avoidance — two key diagnostic criteria of posttraumatic stress. Subsequent factor analysis of the scale showed that the scale also identifies denial or numbing — the third key feature of PTSD in a non-clinical sample (McDonald, 1997). The 15-item self-report questionnaire is comprised of statements described as comments made by people after stressful life events, for example: "I had dreams about it". Response alternatives are contained in columns and range from 0 = "not at all" to 5 = "often", according to how true the comments were for the respondent during the past seven days. The total score for the scale is the sum of scores for all 15 items.

Scores are also obtained on two subscales, namely (1) Intrusion, and (2) Avoidance. Seven items load on the Intrusion subscale, which taps intrusive thoughts and memories, related to the event. For example: "I thought about it when I didn't mean to". Eight items load on the Avoidance subscale, which measures the extent to which the respondent tries to exclude unpleasant memories from consciousness. For example: "I tried not to think about it". Although there is no strict cut-off

for IES scores, those ranging from 0—8 are commonly understood to indicate a low level of distress, those from 9—19 a medium level, and over 20 a high level of distress on either subscale or as a mean of both subscales (Lyons, 1998).

Horowitz et al. (1979) reported split-half reliability for the total score as $r = .86$. Internal consistency of the subscales was high for Intrusion ($\alpha = .78$) and Avoidance ($\alpha = .82$). Test-retest reliability at one week was satisfactory for Intrusion ($r = .89$), Avoidance ($r = .79$), and for the total score ($r = .87$). Other research has confirmed the test's reliability (e.g., Turner & Lee, 1998). In this study the Cronbach alpha coefficient was high for the subscales Intrusion $\alpha = .80$ and Avoidance $\alpha = .82$, and for the total IES score $\alpha = .88$. Lee et al. (1996) found Impact of Events (IES) mean scores on the Intrusion subscale of women following miscarriage ($M = 22.20$, $SD = 8.10$, range = 4—31) to be similar to those reported by Horowitz et al. (1979; $M = 21.40$, $SD = 9.60$, range = 0—35) for a sample of people suffering with stress response syndromes. Avoidance subscale statistics for women ($M = 19.10$, $SD = 8.70$, range = 5—31) in the Lee et al. (1996) study were close to those of the Horowitz et al. sample (1979; $M = 18.20$, $SD = 10.80$, range = 0—38).

2.2.9 Parenting Stress Index Short Form (PSI/SF). The Parenting Stress Index was originally developed by Abidin in 1983 to measure parenting stress in a 120-item questionnaire format (Abidin, 1995). A Short Form of the Parenting Stress Index (PSI/SF) (Appendix N) was derived from the long format, comprising 36 of the items contained in the extended version of the questionnaire (Abidin, 1995). An example of the items is “I often have the feeling that I cannot handle things very well”. Participants circle their response to each item in the columns headed SA for “Strongly Agree”, A for “Agree”, NS for “Not Sure”, D for “Disagree” and SD for “Strongly Disagree”. Scoring the PSI/SF entails summing each of the items comprising the subscales as per the scoring sheet. All subscale items are summed to obtain a Total Stress score which provides an indication of the overall level of parenting stress an individual is experiencing. It reflects personal parent stress and stresses derived from the parent's interaction with the child, as well as those resulting from the child's behavioural characteristics. It does not include stress associated with other life roles and events.

The PSI/SF was developed using a series of replicated factor analyses to explore data gained from 800 mothers who completed the full length Parenting Stress Index (Abidin, 1995). These factor analyses resulted in a three-factor solution. These three factors are reflected in the three subscales derived from the test scores. The subscales are labeled (a) Parental Distress, (b) Parent-Child Dysfunctional Interaction, and (c) Difficult Child. The Parental Distress subscale determines the distress a parent is experiencing as a function of personal factors that are directly related to parenting. The Parent-Child Dysfunctional Interaction subscale focuses on the parent's perception of the child not meeting parental expectations, and interactions with the child not being reinforcing to her as a parent. The Difficult Child subscale focuses on some of the basic behavioural characteristics of children that make them either easy or difficult to manage.

Abidin (1995) reports strong test-retest reliability at the six month interval and internal reliability coefficients for the PSI/SF, with $\alpha = .84$ (test-retest) and $\alpha = .91$ (internal reliability) obtained for the Total Stress score. Test-retest reliability for the three subscales ranges from $\alpha = .68$ (Parent-Child Dysfunctional Interaction) to $\alpha = .85$ (Parental Distress). Similarly, strong internal reliability has also been demonstrated for the three subscales, ranging from $\alpha = .80$ (Parent-Child Dysfunctional Interaction) to $\alpha = .87$ (Parental Distress). Internal reliability was strong in this study with the Cronbach alpha coefficient for the PSI/SF being $\alpha = .94$ for the total score, and $\alpha = .90$ for each of the three subscales.

2.2.10 Feedback after Debriefing Questionnaire (FAD). The Feedback after Debriefing Questionnaire (Appendix O) was designed by the researcher to gain information about the women's perceptions of, feelings about, reactions to, and satisfaction with their postnatal debriefing experience. The questionnaire consists of 20 items in the form of questions, for example: "How useful was the postnatal debriefing in adding to your understanding of events during labour and delivery?" Respondents place a tick in the column which best describes their response to each question. Responses are scored on a five point scale ranging from 0 = "not at all" to 4 = "extremely". Items 4 and 10 are reverse scored. Total scores from 0 to 80 could be obtained, with

higher scores reflecting more positively on the debriefing experience. The questionnaire proved to have good internal consistency in this study, with an alpha coefficient of $\alpha = .87$.

2.2.11 Letters accompanying data collections. At each assessment point

Participants received the appropriate set of questionnaires and an accompanying letter (Appendices P, Q, R, S, T) which thanked them for their participation in the study, and requested the completion, and return of the questionnaires to the researcher sealed in an enclosed, reply paid envelope. These letters also included telephone numbers which participants could have used if they had been feeling distressed.

2.3 The Postnatal Debriefing Protocol

The debriefing was in accordance with the Base Hospital protocols (Appendix A), following guidelines set out in the debriefing workshop manual (Appendix A). Debriefing for participants in the treatment condition took place in a designated, private room on the midwifery floor. Debriefing for control group participants took place in a private room on the ground floor of the hospital. Each debriefing session was of 30 to 60 minutes duration according to the participants needs. Each debriefing session consisted of the following phases:

Introduction: The mother is told that debriefing is confidential, non-judgmental and allows access to her labour and delivery information.

Fact phase: The mother is invited to summarize her birth experience.

Thoughts phase: The mother is asked to describe her thoughts about her birthing.

Feelings phase: The midwife enquires after the mother's feelings during labour, delivery, and now, including reactions to physical sensations, and unexpected occurrences.

Symptoms phase: The midwife asks the mother to describe her current experience.

Education phase: The midwife explains to the mother that it is normal and natural to experience a variety of signs, symptoms, and emotional reactions to the birth experience. The midwife clarifies events and myths surrounding the birth, and shares information from the partograph and delivery notes.

Re-entry phase: The midwife summarizes the mother's overall emotional reactions and response to her birthing expectations. The mother is given the opportunity to convey comments to management regarding the service provided during her birthing.

Final phase: Closure and information. Any further questions the mother has are answered, and information is provided on support services available (if required).

2.4 Procedure

Ethical approval for the study was gained from the University of Ballarat Human Research Ethics Committee and the Ballarat Health Services Ethics Committee. All materials used including forms, letters and questionnaires, were presented for approval and all participants were treated according to the requirements of ethical guidelines.

Participants were systematically allocated to treatment and control groups, chronologically by number, in order of the receipt of their completed informed consent forms. The first woman whose completed consent form was received was given the number 001, and allocated to the treatment group. The second woman whose completed consent form was received was given the number 002, and allocated to the control group, and so on. Thus participants with an odd number made up the treatment group, and the control group was comprised of participants who had been given an even number. A sticker reading "DEBRIEFING RESEARCH PARTICIPANT" was placed on the MR5A admission information form, in the medical file, of each participant. In this way all midwifery staff knew, from the medical file, which mothers were to be debriefed or not before discharge from the hospital.

The procedure for the study involved the collection of self-report questionnaires at four assessment points before and after the treatment condition of postnatal debriefing. The sequence effect of questionnaire presentation was controlled for in the study. All possible orders of questionnaire presentation for each of the four assessment times were determined by Latin square and at each of the assessment points equal numbers of participants, in both the treatment and control groups, were presented questionnaires in each of the possible sequences to counterbalance ordering effects (Appendix V).

2.4.1 First Assessment: Predelivery. All participants received the letter in Appendix P with their questionnaires. The package of questionnaires was handed to each participant after her signing of the informed consent form. Women completed the Background Information Questionnaire (BIQ), the Symptom Checklist 90-R (SCL 90-R), the Dyadic Adjustment Scale (DAS), the State-Trait Anxiety Inventory (STAI) and the Edinburgh Postnatal Depression Scale (EPDS) between the 28th week of gestation and their delivery, and returned them to the researcher in the reply paid, sealed envelope.

2.4.2 Second Assessment: Postdelivery. A day or two after the woman delivered her baby, at the time of the routine parenting craft visit, each participant was given a letter (Appendix Q) and the two assessment measures. The Perception of Birth Scale (POBS) and the Intrapartum Intervention Scale (IIS) were in a reply paid envelope (for return of the completed measures) addressed to the researcher. Prior to this time these envelopes were confined in small, individual, paper folders which contained the participant's name, treatment group and due date of delivery. The folders had a space for the midwives to write the date of delivery, whether the treatment condition had been adhered to, and any relevant comment (such as caesarean delivery). The folders containing the envelopes were kept in a locked filing cabinet, in an office at the maternity unit, to which the researcher and the debriefing midwife involved in the study held the keys. The researcher collected the completed sleeves weekly, after the envelopes had been distributed.

2.4.3 Postnatal Debriefing: Treatment Group. On the second or third day after delivery, women in the treatment group participated in a postnatal debriefing with the debriefing midwife. Women in the control group did not receive debriefing at this time. The nurse manager of the midwifery unit reserved the right to withdraw from the study at this time, any participant, whom she judged (due to traumatic birth or other circumstance), would be failed by the perceived duty of care of the hospital by the absence of debriefing. Five women fell into this category.

2.4.4 Third Assessment: One month post delivery. One month after giving birth all participants received, by mail, the letter in Appendix R and the following questionnaires for completion and reply paid post return: the Edinburgh Postnatal Depression Scale (EPDS), the State-

Trait Anxiety Inventory (STAI), the Perception of Birth Scale (POBS) and the Impact of Events Scale (IES).

2.4.5 Fourth Assessment: Three months post delivery. Three months after giving birth all participants received, by mail, one of the letters contained in Appendix S or T (according to their group condition), and questionnaires for completion and return. The measures were the Edinburgh Postnatal Depression Scale (EPDS), the Dyadic Adjustment Scale (DAS), the State-Trait Anxiety Inventory (STAI), the Perception of Birth Scale (POBS), the Impact of Events Scale (IES) and the Parenting Stress Index (PSI). Participants in the treatment group, who had been debriefed in hospital, also received a Feedback after Debriefing questionnaire. Table 1 summarizes the assessment timetable of the study.

Table 1

Assessment Measures and Assessment Timetable for Participants

Third Trimester	Two Days Post Delivery	One Month Post Delivery	Three Months Post Delivery
EPDS	IIS	EPDS	EPDS
SCL-90-R	POBS	POBS	POBS
DAS			DAS
STAI		STAI	STAI
		IES	IES
BIQ			PSI
	FAD ^a		FAD ^a

Note. At three months post delivery the control group received the FAD at the end of their debriefing.

^aTreatment group only received FAD at this time.

2.4.6 Conclusion of the fieldwork. Participants from the control group were given the opportunity to arrange for their postnatal debriefing following the fourth assessment. The letter that accompanied the questionnaires at assessment point four invited these women to contact the

midwife to make an appointment for their postnatal debriefing and the debriefing midwife made a follow up telephone call. Women from the control group who accepted the opportunity for debriefing at this time were given a Feedback after Debriefing questionnaire, at the conclusion of their session, for completion and return by reply paid envelope. Altogether 53 women from the control group cohort of 73 participants chose to make an appointment for debriefing at this time, and 20 women either made an appointment which they did not keep or declined the offer of debriefing.

Chapter 3: Results

Data obtained from completed questionnaires were entered into an SPSS data file preparatory to data analysis. Although there were 149 participants in the study, in some instances the number of treatment and control group participants varied. Criterion for inclusion in data analysis was the return of questionnaires at assessment points 1 and 4. Some participants, for example, failed to return questionnaire sets from assessment time 3, which is when the Impact of Events Scale was first presented. Where the Dyadic Adjustment Scale is concerned, five participants indicated from the first assessment that they were single mothers, who were not currently in a relationship, and felt that the measure was not relevant to their situation.

Throughout the assembly, analysis, tabulation, presentation and discussion of results, the assessment points which have been described were adhered to, even when a measure was presented for the first time. For example, as the Perception of Birth Scale (POBS) was first presented to participants while they were in hospital at assessment point 2, it is labelled POBS 2 at that time, POBS 3 at one month postpartum, and POBS 4 at three months postpartum. The Impact of Events Scale was first presented to participants one month after their delivery at assessment point 3, so even although that was the first presentation of the measure it became IES 3.

Initial analyses concentrated on ensuring that the internal consistency of measures used in the study were high and that the treatment (debriefed postnatally) and control (not debriefed postnatally) groups did not differ significantly on demographic or other measurement variables. Internal consistency of the measures was gauged using Cronbach's alpha coefficient. Chi-square tests were used to test for differences between the groups on categorical demographic variables. Independent samples *t*-tests were employed to test for group differences on age or any of the psychological measures used in the study. Multiple analyses of variance were used to test for group differences on the subscales of the psychological measures.

Hypotheses were tested employing the experimental design defined by Mohr (1995) as the comparative change design, using repeated measures. This two (Condition) x three (Time) factorial

design lent itself to “mixed between–within subjects ANOVA” (Tabachnick & Fidell, 1996) or split plot ANOVA (SPANOVA) with Condition as the between subject variable, and Time the within subject variable (Pallant, 2001). A series of these analyses as well as independent samples *t*-tests were conducted on the dependent variables of depression, anxiety, dyadic adjustment, trauma and perception of the birth. Analyses were performed using SPSS and the significance criterion of .05 was adopted for all analyses. Results are presented, following the initial analyses, according to the order of the hypotheses proposed for the study.

3.1 Initial Analyses

3.1.1 Internal Consistency. Internal consistency of the majority of scales (reported individually in the previous chapter) was found to be strong for this participant population, with the Cronbach alpha coefficients ranging from $\alpha = .86$ to $\alpha = .97$. The exception was the Intrapartum Intervention Scale where $\alpha = .66$. Table 2 summarizes alpha coefficients for all the scales used.

Table 2

Alpha Coefficients for all Questionnaires

Questionnaire	Item <u>N</u>	α
Dyadic Adjustment Scale	32	.93
Edinburgh Postnatal Depression Scale	10	.87
Feedback After Debriefing	20	.87
Impact of Events Scale	15	.88
Intrapartum Intervention Scale	20	.66
Perception of Birth Scale	29	.86
Parenting Stress Index	36	.94
Symptom Checklist 90-R	90	.97
State Trait Anxiety Index	40	.96

3.1.2 Demographic Data. Frequencies, percentages and chi-square values were calculated for treatment and control groups, on items comprising the Background Information Questionnaire.

Results indicated that for these categorical variables there were no significant difference between the groups which could affect outcome (see Tables 3-6). Four items drew insufficient differentiating responses to be included without violation of the chi-square assumption concerning a minimum expected cell frequency of 5 (Pallant, 2001). These items referred to the woman's relationship with her mother, her intention to deliver by caesarean, use of a birth partner, or breastfeed her baby. They were deleted from this and further analyses.

Table 3

Descriptive Statistics and Chi-square Values for Demographic Variables

Demographics	Treatment (n = 76)		Control (n = 73)		χ^2	df
	N	%	n	%		
Marital Status					1.27	2
Single	8	11	5	7		
Defacto/Engaged	19	27	15	22		
Married	44	62	48	71		
Education Level					2.34	2
<Year 12	30	40	24	34		
Year 12	23	30	17	24		
Post-Secondary	23	30	30	42		
Employment Status					0.88	2
Full Time	20	26	19	26		
Part Time	19	25	23	32		
Not employed	37	49	31	42		
Return to Work					0.50	2
Within 12 mths	41	54	37	51		
Within 3 years	17	22	15	21		
No or unsure	18	24	21	28		

Note. Information about education level is missing for two, and marital status for 10, participants.

As can be seen from Table 3, over 60% of women who participated in the study described themselves as married, over 20% described themselves as engaged or living in a defacto relationship, and some 10% described themselves as single. There was no significant difference between the treatment and control groups with regard to marital status. Over 60% of participants had an education level of Year 12 or more, and there was no significant difference between the treatment and control groups with regard to education. Over 50% of the study population worked full or part time and more than 70% of participants indicated that they intended to return to work within three years of their baby's birth. Again, there was no significant difference between the treatment and control groups with regard to employment or intention to return to work.

Table 4

Descriptive Statistics and Chi-square Values for Pregnancy and Birthing

Pregnancy & Birthing	Treatment (n = 76)		Control (n = 73)		χ^2	df
	n	%	n	%		
First Pregnancy					0.08	1
Yes	24	32	25	34		
No	51	68	48	66		
First Baby					0.21	1
Yes	33	43	29	40		
No	43	57	44	60		
Normal Pregnancy					0.46	1
Yes	71	93	66	90		
No	5	7	7	10		
Actual Delivery					0.11	1
Caesarean	13	17	14	19		
Vaginal	63	83	59	81		
Birth Plan?					1.50	1
Yes	41	54	46	64		
No	35	46	26	36		

Note. Information about first pregnancy and use of a birth plan is missing for one participant.

Table 4 contains pregnancy and birthing information. Some 30% of the women in each group reported this pregnancy to be their first, although for 40% of women from each group this

would be their first baby. The majority of women — over 90% in each group — felt that their pregnancy had been normal. Although 93% of women planned to deliver their baby vaginally, the eventual number of vaginal deliveries was just over 80% for both the treatment (83%) and control (81%) group. The treatment and control groups were very similar in their expectations concerning the mode of their delivery.

Table 5 contains information pertaining to perceived levels of financial and social support. Over 80% of participants reported feeling reasonably secure financially, and 90% signified that they had family who would help them with the baby. Most women felt they had friends (83% of treatment group, 90% of control group) who might help with the baby as well. There was no significant difference between the treatment and control groups in these broadly perceived levels of financial and social support.

Table 5

Descriptive Statistics and Chi-square Values for Perceived Support

Perceived Support	Treatment (n = 76)		Control (n = 73)		χ ²	df
	<u>n</u>	%	<u>n</u>	%		
Financial security					0.57	1
Yes	61	81	58	83		
No	14	19	12	17		
Family support					0.01	1
Yes	69	91	66	90		
No	7	9	7	10		
Friends support					1.80	1
Yes	63	83	66	90		
No	13	17	7	10		

Note: Information concerning financial security is missing for four participants.

There was no significant difference between the groups with regard to history of sexual abuse, depression or anxiety, as can be seen in Table 6. Close to 20% of women in both the

treatment (18%) and control (17%) groups reported having experienced sexual abuse, one participant did not respond to this item. Four participants did not respond to the items concerning a history of anxiety or depression. More women in both the treatment (32%) and control (19%) groups reported having a history of depression than of anxiety (13% - 14% in the two respective groups).

Table 6

Descriptive Statistics and Chi-square Values for Personal History

Participant History	<u>Treatment (n = 76)</u>		<u>Control (n = 73)</u>		χ^2	<u>df</u>
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>		
Sexual Abuse					0.02	1
Yes	13	18	12	17		
No	61	82	60	83		
Depression					2.78	1
Yes	23	32	14	19		
No	50	68	58	81		
Anxiety					0.46	1
Yes	10	14	9	13		
No	63	86	63	87		

3.1.3 Age and Psychological Measures. An Independent Samples t -test was conducted to compare the ages of participants in the two groups. There was no significant difference in age between those in the treatment ($M = 28.43$, $SD = 4.70$) and control ($M = 28.85$, $SD = 4.65$) groups, $t(149) = 0.54$, $p = .59$. Independent samples t -tests were also used to compare scores for participants in each group (treatment and control) at the first time of presentation for each of the psychological measures used. The results of these analyses are shown in Table 7. The Symptom Checklist 90-R (SCL 90-R) Global Severity Index subscale served as an antenatal screen for psychological symptoms within the participant population. Women in the treatment and control

groups had comparable scores on the psychological symptom total measured by this instrument. Likewise, the antenatal total scores of women in both the treatment and control groups were comparable for levels of anxiety, as measured by the State-Trait Anxiety Inventory (STAI), and the dyadic relationship, as measured by the Dyadic Adjustment Scale (DAS) total score. There was no significant difference between the groups on levels of depression, as measured by the Edinburgh Postnatal Depression Scale (EPDS).

Table 7

Descriptive Statistics and Independent Samples t-tests for Antenatal Measures

Measures	<u>Treatment (n = 76)</u>		<u>Control (n = 73)</u>		<u>t-value</u>	<u>df</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
SCL 90-R	0.57	0.50	0.51	0.39	0.81	147
STAI	69.13	20.53	66.05	19.88	0.93	147
EPDS	7.16	4.90	7.34	5.04	-0.23	147
DAS Total	115.95	17.82	117.42	15.08	-0.54	147

Four one-way between-groups MANOVA's were performed to investigate group differences on the Dyadic Adjustment Scale (DAS), State-Trait Anxiety Inventory (STAI), and the Symptom Checklist 90-R (SCL 90-R). The results of these analyses are shown in Table 8 and confirm the similarity of the composition of the two groups. There was no significant difference between the groups on any of the DAS subscales expressing the critical psychological variables, namely Dyadic Consensus, Dyadic Satisfaction, Affectional Expression or Dyadic Cohesion. There was no significant difference between the groups on the STAI subscales of Right Now or Generally. There was no significant difference between the groups on the SCL 90-R subscales of Somatization, Compulsivity, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, or Psychoticism. Thus, at the commencement of this study there was no significant difference antenatally between participants in the treatment and control groups on any of the

psychological indices of concern. These indices included general symptoms of psychological disorder and specific measures of anxiety, depression and dyadic adjustment.

Table 8

Descriptive Statistics and MANOVA for Antenatal Measures Subscales

Subscales	<u>Treatment (n=76)</u>		<u>Control (n=73)</u>		.	<u>F</u>	<u>df</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>			
DAS					.97	1.17	4, 139
Consensus	51.03	7.55	50.70	6.73			
Satisfaction	39.19	8.08	39.99	5.47			
Expression	9.52	1.95	9.45	2.14			
Cohesion	16.21	4.17	17.28	3.73			
STAI					.99	0.45	2, 146
Right Now	33.33	10.76	31.70	10.21			
Generally	35.80	19.79	34.47	10.33			
SCL-90R					.95	0.78	9, 139
Somatization	0.77	0.59	0.77	0.51			
Compulsivity	0.77	0.69	0.67	0.49			
Sensitivity	0.57	0.63	0.43	0.50			
Depression	0.78	0.67	0.71	0.55			
Anxiety	0.41	0.57	0.34	0.49			
Hostility	0.58	0.59	0.46	0.38			
Phobic Anx	0.15	0.36	0.16	0.26			
Paranoid Id	0.41	0.64	0.30	0.45			
Psychoticism	0.21	0.47	0.17	0.33			

Table 9 contains means, standard deviations and independent samples *t*-tests information for the two measures used post-delivery (in the hospital), namely, the Intrapartum Intervention Scale

(IIS) and the Perception of Birth Scale (POBS). The IIS was only administered the one time in order to gain a quantitative measure of the actual labour experience. The POBS was first administered at this time as a quantitative measure of the perceived labour experience. There was no significant difference between the groups on either of these measures post delivery, with the two groups of women having experienced similar levels of medical intervention during labour and delivery and sharing comparable perceptions about their experience.

Table 9

Descriptive Statistics and Independent Samples t-tests on Postnatal Measures

Measures	<u>Treatment (n = 73)</u>		<u>Control (n = 71)</u>		<u>t-value</u>	<u>df</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
IIS	31.86	16.99	32.49	17.68	-0.22	142
POBS	98.22	15.65	98.27	16.97	0.20	142

Note. Information from the scales contained in this table is missing for five participants.

In summary, before any hypothesis testing was undertaken, there was no significant difference between the two groups of women on antenatal psychosocial factors nor birthing experience factors.

3.2 Hypotheses Testing

Preliminary assumption testing was conducted for all analyses to check for normality, linearity, Box's M and multicollinearity where appropriate, and unless specified in the text, no serious violations were noted. Repeated measures mixed between–within subjects ANOVA (Tabachnick & Fidell, 1996), also known as split plot ANOVA (SPANOVA) (Pallant, 2001), and paired samples t-tests were employed to test hypotheses. Reporting of results of individual analyses include F value, degrees of freedom, Wilks' Lambda and effect size.

3.2.1 Hypothesis 1

A 2 x 3 (Treatment Conditions x Time of Assessments) SPANOVA was conducted to explore the effect of postnatal debriefing on the development of postnatal depression, as measured by the Edinburgh Postnatal Depression Scale (EPDS). EPDS scores were collected at Assessment points 1 (prepartum), 3 (one month postpartum), and 4 (three months postpartum). There was no significant

interaction between Treatment Condition and Time, $F(2, 128) = 1.95$, $p = .15$, Wilks' Lambda = .97, partial eta squared = .03. Likewise, there was no significant effect of the Treatment Condition, $F(1, 129) = 0.27$, $p = .61$, partial eta squared = .00. Women did not differentially report the experience of postnatal depression according to group treatment condition.

There was a statistically significant main effect of Time, $F(2, 128) = 4.62$, $p = .01$, Wilks' Lambda = .93, partial eta squared = .07. Comparisons between all participants, at each of the assessment points, revealed that scores on the EPDS scale decreased significantly over time between each of the three assessment points (EPDS 1, $M = 7.16$, $SD = 4.93$; EPDS 3, $M = 6.57$, $SD = 5.02$; EPDS 4, $M = 5.91$, $SD = 5.13$). Women reported significantly less symptoms of depression three months postpartum than at either of the earlier assessment points, regardless of whether they were debriefed or not, $F(1, 129) = 8.86$, $p \leq .01$, partial eta squared = .06.

Given that previous history is likely to be associated with depression after childbirth (Gotlib et al., 1991), an additional 2 x 2 x 3 (Treatment Conditions x Time of Assessments x Antenatal Depression) SPANOVA was conducted. This analysis examined the effect of postnatal debriefing on the development of postnatal depression, in women with symptoms of antenatal depression. Participants were grouped according to their level of antenatal depression, as measured by the EPDS. Those with an antenatal score of 14 or higher on the EPDS were defined as having symptoms of antenatal depression (Murray & Carothers, 1990) and those with an antenatal score of less than 14 defined as not having symptoms of antenatal depression. A statistically significant two-way interaction was observed between Time and symptoms of Antenatal Depression, $F(2, 126) = 11.62$, $p \leq .01$, Wilks' Lambda = .84, partial eta squared = .16. Comparisons between participants, across the three assessment points, revealed that scores on the EPDS, for participants with no symptoms of antenatal depression, were consistently low across the three assessments points ($M = 6.05$, $SD = 3.66$; $M = 5.96$, $SD = 4.60$; $M = 5.39$, $SD = 5.04$) irrespective of Treatment Condition. Participants with symptoms of antenatal depression exhibited a significant decrease in EPDS scores between the first ($M = 17.23$, $SD = 3.35$) and second ($M = 12.15$, $SD = 5.44$) assessment points, $F(1, 127) = 17.41$, $p \leq .01$, partial eta squared = .12, and the first and the third ($M = 10.62$, $SD =$

3.33) assessment points, $F(1, 127) = 20.40$, $p \leq .01$, partial eta squared = .14, irrespective of Treatment Condition. EPDS scores of women who had symptoms of depression in the prepartum decreased significantly over time whether they were debriefed or not.

The interaction between Time and Antenatal Depression may also be attributed to regression toward the mean (Campbell & Stanley, 1970). To elaborate, while the interaction may be the result of causal influences of Time in improvement of depressive symptoms, it is also possible that the deviation between the test-retest scores may be the result of measurement error. Extreme scores gauged at the first time of testing are expected to regress back towards the mean on a retest of the same measure (Campbell & Stanley, 1970), there may also be an underlying improvement in this group.

There was no significant interaction of Condition with Time, $F(2, 126) = 1.08$, $p = .34$, Wilks' Lambda = .98, partial eta squared = .02. Likewise, there was no significant three way interaction between Condition, Time and Antenatal Depression, $F(2, 126) = 0.14$, $p = .87$, Wilks' Lambda = 1.00, partial eta squared = .00. Neither was there a statistically significant main effect of Treatment Condition, $F(1, 127) = 0.26$, $p = .61$, partial eta squared = .00. There was a statistically significant main effect of Time, $F(2, 126) = 15.73$, $p \leq .01$, Wilks' Lambda = .80, partial eta squared = .20. Comparisons between all participants, across the antenatal and postnatal assessment points, revealed that all participants' scores on the EPDS decreased significantly over time between both the first ($M = 7.16$, $SD = 4.93$) and second ($M = 6.57$, $SD = 5.02$) assessment points, $F(1, 127) = 18.44$, $p \leq .01$, partial eta squared = .13, and the first and the third ($M = 5.91$, $SD = 5.13$) assessment points, $F(1, 127) = 30.51$, $p \leq .01$, partial eta squared = .19, regardless of Treatment Condition and Antenatal Depression. Participants symptoms of depression decreased over time whether they had been debriefed or not, in the postpartum, and whether they had been depressed or not in the prepartum.

Comparison of antenatal EPDS scores with postnatal scores show that in the prepartum period 134 (90%) of participants did not have symptoms of depression and 15 women (10%) did report symptoms of depression, using a cut-off score of 14 (Murray & Carothers, 1990). At one month

postpartum 112 (83%) of participants did not report depressive symptoms and 23 women (17%) did report depressive symptoms, while at three months postpartum, 126 (87%) of participants did not report symptoms of depression and 19 women (13%) did report depressive symptoms, using the cut-off score of 12 (Milgrom & McCloud, 1996). A cut off score of 12/13 was nominated in validation of the EPDS by Cox et al. (1987) as that which identified those women “most likely to be suffering from a depressive illness of varying severity” (p. 785) in the post partum.

3.2.2 Hypothesis 2

A 2 x 3 (Treatment Conditions x Time of Assessments) SPANOVA was conducted to explore the effect of postnatal debriefing on the level of state anxiety, as measured by the State-Trait Anxiety Inventory (STAI). STAI scores were collected at Assessment points 1 (prepartum), 3 (one month postpartum), and 4 (three months postpartum). There was no significant interaction between Time and Condition, $F(2, 127) = 0.45$, $p = .64$, Wilks' Lambda = .99, partial eta squared = .01. Nor was there a significant main effect of Treatment Condition, $F(1, 128) = 1.73$, $p = .19$, partial eta squared = .01. Postnatal debriefing did not significantly effect the level of state anxiety of the treatment group compared to the control group.

There was a statistically significant main effect of Time, $F(2, 127) = 4.04$, $p = .02$, Wilks' Lambda = .94, partial eta squared = .06. Comparisons across the antenatal and postnatal assessment points, revealed that all participants' scores on the STAI decreased significantly over time between the first ($M = 32.08$, $SD = 10.53$) and fourth ($M = 29.75$, $SD = 10.02$) assessment points regardless of treatment condition, $F(1, 128) = 6.49$, $p = .01$, partial eta squared = .05. Differences between the other assessment points were not significant. Women were less anxious three months post partum than they were in the prepartum period, regardless of Treatment Condition.

3.2.3 Hypothesis 3

A 2 x 2 repeated measures (Treatment Conditions x Time of Assessments) SPANOVA was conducted to explore the effect of postnatal debriefing on the level of dyadic satisfaction, as measured by the Dyadic Adjustment Scale (DAS). DAS scores were collected at Assessment points 1 (prepartum) and 4 (three months postpartum) and analysis was conducted on the Dyadic

Satisfaction subscale. There was no significant interaction between Time and Condition, $F(1, 136) = 1.50$, $p = .22$, Wilks' Lambda = .99, partial eta squared = .01. There was no statistically significant effect of Treatment Condition, $F(1, 136) = 0.36$, $p = .55$, partial eta squared = .00. Postnatal debriefing did not significantly effect the level of Dyadic Satisfaction of women in the treatment group compared to women in the control group.

There was a statistically significant main effect of Time, $F(1, 136) = 4.00$, $p = .05$, Wilks' Lambda = .97, partial eta squared = .03. Comparisons across the antenatal and postnatal assessment points revealed that participants' scores on Dyadic Satisfaction decreased over time between the first ($M = 39.99$, $SD = 6.00$) and fourth ($M = 39.12$, $SD = 7.50$) assessments, regardless of Treatment Condition, $F(1, 136) = 4.00$, $p = .05$, partial eta squared = .03. The postnatal debriefing condition did not effect women's levels of Dyadic Satisfaction in the postpartum.

Four repeated measures SPANOVA's were conducted across the remaining DAS subscales and Total composite score to investigate the possibility of significance occurring in other domains of the dyadic relationship. Table 10 is a summary of these analyses and shows that there was no statistically significant effect of Condition. A statistically significant main effect of Time occurred for all subscales except Dyadic Cohesion. There was a significant interaction between Time and Condition on the subscale of Dyadic Cohesion, $F(1, 136) = 5.67$, $p = .02$, partial eta squared = .04. Treatment group scores for Dyadic Cohesion increased over time between the first ($M = 16.49$, $SD = 3.95$) and fourth ($M = 16.83$, $SD = 4.15$) assessment points. Control group scores for Dyadic Cohesion decreased over time between the first ($M = 17.33$, $SD = 3.69$) and fourth ($M = 16.41$, $SD = 3.67$) assessment points. Women who were debriefed reported more improved cohesion with their partner, at three months postpartum than women who were not debriefed.

One other interaction between Time and Condition showed a trend in the direction of significance and that was total Dyadic Adjustment, $F(1, 136) = 3.53$, $p = .06$, Wilks' Lambda = .98, partial eta squared = .03. There was a trend for non-debriefed women to report more lowered levels of dyadic adjustment between the first ($M = 117.49$, $SD = 15.04$) and fourth ($M = 112.29$,

$SD = 18.22$) assessment points than debriefed women between the first ($M = 117.25$, $SD = 16.47$) and fourth ($M = 116.03$, $SD = 17.45$) assessment points. The trend did not reach significance.

Table 10

SPANOVA for DAS including Treatment (n = 69) and Control (n = 69) Groups, in the Third Trimester and at 3 Months Post-delivery

Source	df	F	.	d
Time	Within subjects			
Consensus	1,136	7.49**	0.95	0.05
Satisfaction	1,136	4.00*	0.97	0.03
Expression	1,136	18.72**	0.88	0.12
Cohesion	1,136	1.26	0.99	0.01
DAS Total	1,136	9.17**	0.94	0.63
Condition	Between subjects			
Consensus	1,136	0.75		0.75
Satisfaction	1,136	0.36		0.00
Expression	1,136	1.97		0.01
Cohesion	1,136	0.12		0.00
DAS Total	1,136	0.43		0.00
Time x Condition	Within and Between Subjects			
Consensus	1,136	1.50	0.99	0.01
Satisfaction	1,136	1.50	0.99	0.01
Expression	1,136	2.81	0.98	0.02
Cohesion	1,136	5.67*	0.96	0.04
DAS Total	1,136	3.53	0.98	0.03

* $p < .05$, ** $p < .01$

3.2.4 Hypothesis 4

A 2 x 2 repeated measures (Treatment Conditions x Time of Assessments) SPANOVA was conducted to explore the effect of postnatal debriefing on the experience of trauma, as measured by the Impact of Events Scale (IES). The IES score was gauged at assessment points 3 (one month postpartum) and 4 (three months postpartum). There was no significant interaction between Time and Condition, $F(1, 129) = 0.07$, $p = .80$, Wilks' Lambda = 1.00, partial eta squared = .00, nor was there a statistically significant main effect of Condition, $F(1, 129) = 2.85$, $p = .09$, partial eta squared = .02. The experience of postnatal debriefing did not significantly effect the IES scores of the treatment group compared to the control group.

There was a statistically significant effect of Time, $F(1, 129) = 6.79$, $p = .01$, Wilks' Lambda = .95, partial eta squared = .05. All participants scores on the IES reduced over time from one month ($M = 9.34$, $SD = 10.09$) to three months ($M = 7.13$, $SD = 8.83$).

Comparison of IES scores at one month and three months postpartum were made using the cut-offs consistent with Lyons (1998). Low distress was indicated by scores equal to or less than 8, moderated distress was indicated by scores between 9 and 19 and high levels of distress were indicated by scores of 20 or more on the IES. At one month postpartum, 72 (53%) of women reported low distress, 47 (35%) of women reported moderate distress and 16 (12%) of women reported high levels of distress related to their delivery experience. At three months postpartum 96 (66%) of women reported low distress, 34 (24%) of women reported moderate distress and 15 (10%) of women reported high levels of distress related to their delivery experience.

3.2.5 Hypothesis 5

A 2 x 3 x 2 (Treatment Condition x Time of Assessments x Medical Intervention) SPANOVA was conducted to explore the effect of postnatal debriefing on the participants' perception of their birth experience, as measured by the Perception of Birth Scale (POBS), and the influence of medical intervention, as measured by the Intrapartum Intervention Scale (IIS). POBS scores were collected at Assessment points 2 (two days postpartum), 3 (one month postpartum) and 4 (three months postpartum). IIS scores were collected at Assessment point 2 (two days

postpartum) only. Preliminary analysis, using Pearson’s Product-Moment Correlation Coefficient, indicated that there was a significant negative correlation at the .01 level of significance, between POBS and IIS at all relevant assessment points; Assessment Point 2 ($r = -.38, n = 144, p = .01$), Assessment Point 3 ($r = -.36, n = 133, p \leq .01$) and Assessment Point 4 ($r = -.41, n = 141, p \leq .01$). The more medical intervention occurred, the less positive the perceptions of birth recorded.

Exploratory analysis indicated that test assumptions would be violated if the IIS score was entered as a covariate. In order to enter the IIS score as a factor, the score was split arbitrarily at the median value, with participants scoring 28 or less ($n = 61$) defined as having less medical intervention, and those scoring more than 29 ($n = 69$) defined as having more medical intervention. Twenty-nine participants in the treatment group and 32 participants in the control group had IIS scores lower than 28. Thirty-nine participants in the treatment group and 30 participants in the control group had IIS scores of 29 or more.

There was a significant main effect of Medical Intervention, $F(1, 126) = 10.92, p \leq .01$, partial eta squared = .08, indicating that women’s positive perception of the birthing experience is significantly affected by the amount of medical intervention received. This result was evident at all assessment points in this study. Table 11 gives descriptive statistics relating to the amount of medical intervention and POBS scores.

Table 11

Descriptive Statistics for POBS with IIS over Time

Measures	<u>Treatment (n = 68)</u>		<u>Control (n = 62)</u>	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
POBS 2 with IIS score = <28	106.00	13.69	100.25	16.06
POBS 2 with IIS score = >29	92.97	15.18	97.03	17.07
POBS 3 with IIS score = <28	111.31	15.54	99.72	18.30
POBS 3 with IIS score = >29	93.03	19.45	98.60	18.85
POBS 4 with IIS score = <28	109.86	17.03	96.19	17.66
POBS 4 with IIS score = >29	89.92	22.70	92.83	23.13

There was a significant interaction between Time and Condition, $F(2, 125) = 3.25, p = .04$, Wilks' Lambda = .95, partial eta squared = .05. Separate comparisons between treatment and control groups, at all assessment points, revealed a significant difference for control group participants, $F(2, 60) = 5.97, p \leq .01$, Wilks' Lambda = .83, partial eta squared = .17, between assessment points two ($M = 98.69, SD = 16.50$) and four, ($M = 94.56, SD = 20.39$), $F(1, 61) = 10.45, p \leq .01$, partial eta squared = .15, when positive perceptions of their birthing decreased. There was no significant difference for treatment group participants between assessment points two ($M = 98.53, SD = 15.85$) and four, ($M = 98.43, SD = 22.63$), $F(2, 66) = 1.34, p = .27$, Wilks' Lambda = .96, partial eta squared = .04. Differences between other assessment points such as two and three or three and four were not significant for either group. Perception of the birth experience for women who were not debriefed was significantly less positive at three months postpartum than it had been two days after the birth. Perception of the birth experience for women who were debriefed did not change significantly over this time.

There was no statistically significant interaction of Time with the IIS score, $F(2, 125) = 1.92, p = .15$, Wilks' Lambda = .97, partial eta squared = .03. There was a statistically significant three-way interaction between Condition, Time, and Medical Intervention, $F(2, 125) = 3.53, p = .04$, Wilks' Lambda = .95, partial eta squared = .05. The interaction can be seen in Figure 1. This interaction was investigated using a series of independent samples t -tests with alpha set at .01, separately for treatment and control groups at each assessment point. Results of these analyses may be found in Table 12, where there is a statistically significant effect of Condition at each of the three assessment points, for women in the Treatment Condition with an IIS score of more than 29. Women who were debriefed, and had more medical intervention in their birthing perceived their birthing experience less positively, at each of the three assessment points than women who were debriefed, and had less medical intervention in their birthing.

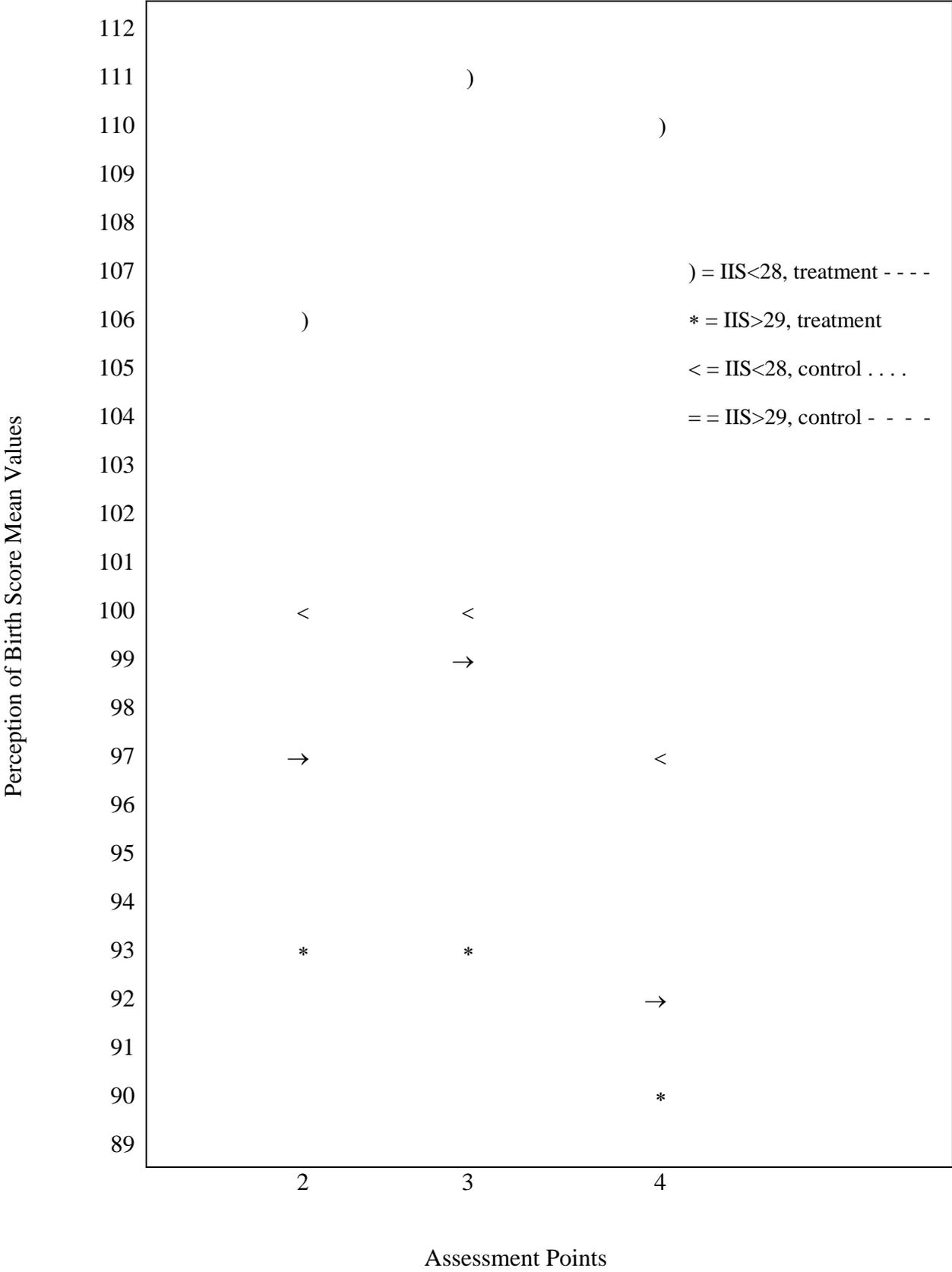


Figure 1. Mean POBS scores of treatment and control groups, across time, split by degree of medical intervention in the birth.

Further investigations using repeated measures ANOVA were conducted separately for women with IIS score of less than 28, and women with IIS score of more than 29, in each group condition. Results of these analyses indicate a significant effect of Time for women with IIS score ≤ 28 in the treatment group, $F(2, 27) = 5.35$, $p = .01$, Wilks' Lambda = .72, partial eta squared = .28. This significant effect occurred between assessment points two ($M = 106.00$, $SD = 13.69$) and three ($M = 111.31$, $SD = 15.54$), $F(1, 28) = 11.05$, partial eta squared = .28. A similar effect occurred between assessment points two ($M = 106.00$, $SD = 13.69$) and four ($M = 109.86$, $SD = 17.03$), $F(1, 28) = 5.20$, $p = .03$, partial eta squared = .16. Women who were debriefed and had less medical intervention in their birthing perceived their birthing experience more positively at one month and three months postnatal than they did two days after the birth.

Table 12

Descriptive Statistics and Independent Samples T-tests for IIS, Condition and POBS over Time

Time	<u>IIS Score ≤ 28</u>			<u>IIS Score ≥ 29</u>			<u>t-value</u>	<u>df</u>
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>		
Treatment Condition								
2	34	105.53	13.50	39	92.97	15.18	3.71**	71
3	30	110.80	15.52	39	93.03	19.45	4.10**	67
4	33	109.64	16.27	39	89.92	22.70	4.16**	70
Control Group								
2	36	100.86	16.57	35	95.60	17.20	1.31	69
3	33	99.42	18.09	31	98.39	18.57	0.23	62
4	35	97.14	17.66	34	89.32	25.91	1.47	67

** $p < .01$, two-tailed

There was a significant effect of Time, $F(2, 30) = 3.37$, $p = .05$, Wilks' Lambda = .82, partial eta squared = .18, for women with IIS score of 28 or less in the control group. This effect occurred between assessment points two ($M = 100.25$, $SD = 16.06$) and four ($M = 96.19$, $SD = 17.66$), $F(1, 31) = 6.80$, $p = .01$, partial eta squared = .18. Women who were not debriefed and had less medical

intervention in their birthing perceived their birthing experience less positively after three months than they did after two days.

There was no significant main effect of Treatment Condition, $F(1, 126) = 1.07$, $p = .30$, partial eta squared = .01. The experience of postnatal debriefing did not significantly effect POBS scores of the treatment group compared to the control group overall.

There was a significant main effect of Time, $F(2, 125) = 3.72$, $p = .03$, Wilks' Lambda = .94, partial eta squared = .06. Comparisons between all participants, over three assessment points revealed that participants' scores on the POBS were significantly different between assessment point three and assessment point four, $F(1, 127) = 4.65$, $p = .03$, partial eta squared = .04. Overall participants' scores reduced over time, reflecting a less positive perception of the birth experience from one ($M = 101.36$, $SD = 20.14$) to three months ($M = 96.74$, $SD = 21.49$) postnatally, regardless of whether or not they received debriefing.

3.2.6 Hypothesis 6

A 2 x 3 x 2 (Treatment Condition x Time of Assessments x History of Abuse) SPANOVA was conducted to investigate whether the experience of labour and delivery, as measured by the POBS and IIS, was more difficult for women who had been sexually abused. This analysis also investigated whether sexually abused participants who experienced postnatal debriefing perceived the birth experience differently from other participants over time. POBS scores were collected at Assessment points 2 (two days postpartum), 3 (one month postpartum) and 4 (three months postpartum). IIS scores were collected at Assessment point 2 (two days postpartum) only.

There was no statistically significant main effect of Abuse in relation to participants' perception of their birthing, as measured by POBS scores (POBS 2, $M = 100.73$, $SD = 15.80$; POBS 3, $M = 104.27$, $SD = 19.57$; POBS 4, $M = 97.32$, $SD = 26.14$), $F(1, 123) = 0.47$, $p = .50$, partial eta squared = .01. There was no statistically significant difference on the degree of medical intervention in the birth, as measured by the IIS, between abused ($n = 24$, $M = 30.54$, $SD = 16.43$) and non-abused women ($n = 117$, $M = 32.68$, $SD = 17.69$), $F(1, 140) = 0.30$, $p = .59$. The 24

women in the study who had a history of sexual abuse did not find the experience of labour and delivery more difficult than non-abused women.

A statistically significant three-way interaction was observed between Condition, Time, and Abuse, $F(2, 122) = 4.09$, $p = .02$, Wilks' Lambda = .94, partial eta squared = .06. This interaction was investigated using a series of independent samples t -tests separately for treatment and control groups at each assessment point (POBS 2, POBS 3, POBS 4). Results of these analyses may be found in Table 13 but no statistically significant difference was discovered. Perusal of the Table shows that the positive perception of the birth of debriefed sexually abused women seemed to fluctuate more over time returning to post delivery levels at 3 months post partum than that of non-debriefed sexually abused women which reduced steadily.

Table 13

Descriptive Statistics and Independent Samples t -tests for Abuse, Condition and POBS

Time	<u>Sexually Abused</u>			<u>Not Sexually Abused</u>			<u>t-value</u>	<u>df</u>
	<u>n</u>	<u>M</u>	<u>SD</u>	<u>n</u>	<u>M</u>	<u>SD</u>		
<u>Treatment Condition</u>								
POBS2	12	96.17	14.35	59	99.36	16.21	0.63	69
POBS3	12	108.50	20.75	57	99.44	19.94	-1.42	67
POBS4	13	96.69	31.12	60	99.35	20.03	0.39	71
<u>Control Group</u>								
POBS2	12	104.92	15.49	58	97.02	17.19	-1.47	98
POBS3	11	102.64	20.34	52	98.42	17.88	-0.69	61
POBS4	12	101.58	17.23	58	92.03	22.90	-1.36	68

* $p < .05$ two-tailed.

Comparisons between abused and non-abused women in each treatment condition revealed a significant effect of Time for non-abused women in the Control group, $F(2, 124) = 4.11$, $p = .02$, Wilks' Lambda = .94, partial eta squared = .06. This significant effect occurred between assessment points two and four, $F(1, 125) = 5.42$, $p = .02$, partial eta squared = .04, as shown in Table 13. A

significant effect of Time, $F(2, 124) = 6.68, p \leq .01$, Wilks' Lambda = .90, partial eta squared = .10, was also evident for abused women in the Treatment group. This effect occurred between assessment points two and three, $F(1, 125) = 9.72, p \leq .01$, partial eta squared = .07. A significant interaction of Time and Condition, $F(2, 124) = 4.09, p = .02$, Wilks' Lambda = .94, partial eta squared = .06, was also evident for these women. Abused and debriefed women had similar POBS scores at assessment points two ($M = 96.64, SD = 14.96$) and four ($M = 93.09, SD = 32.70$), a significant difference occurred in scores at assessment point three ($M = 105.91, SD = 19.62$), $F(1, 125) = 7.54, p = .01$, partial eta squared = .06. This interaction is depicted in Figure 2.

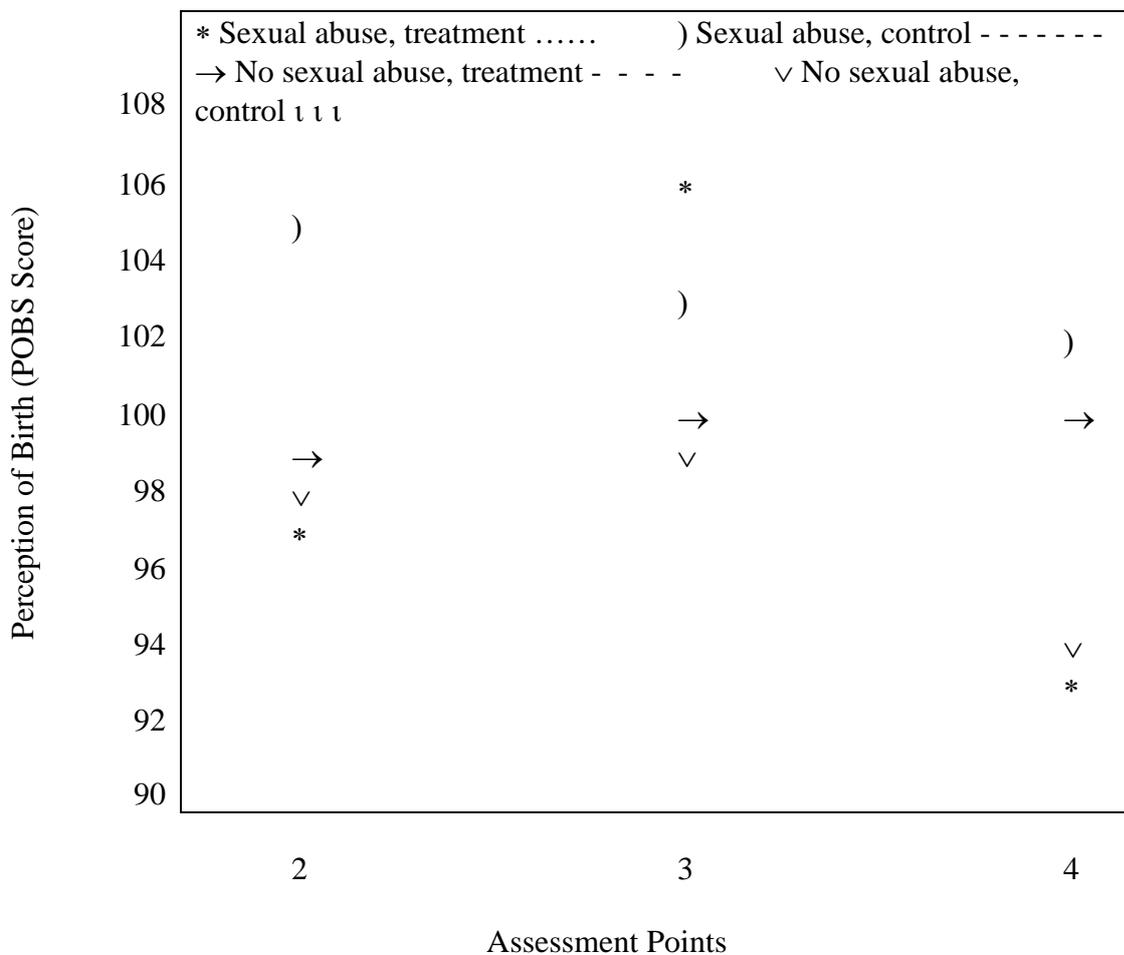


Figure 2. Mean POBS scores, for treatment and control groups, of women with and without a history of sexual abuse over three assessment points.

Women who had not been sexually abused maintained consistent scores on the POBS over three assessments irrespective of debriefing ($M = 98.23, SD = 16.40$; $M = 99.10, SD = 19.23$; $M =$

96.51, $SD = 20.84$). Specifically, non-abused women who were not debriefed ($M = 97.50$, $SD = 16.55$, $M = 98.72$, $SD = 18.18$, $M = 93.38$, $SD = 20.67$) and non-abused women who were debriefed ($M = 98.89$, $SD = 16.39$; $M = 99.45$, $SD = 20.30$; $M = 99.36$, $SD = 20.67$) maintained similar consistency on the POBS scores across the three assessments. Women who had been sexually abused, and were not debriefed, also maintained consistent results on the POBS over the three assessments ($M = 104.82$, $SD = 16.25$; $M = 102.64$, $SD = 20.34$; $M = 101.55$, $SD = 18.07$).

A statistically significant main effect of Treatment Condition did not occur, $F(1,123) = 0.04$, $p = .84$, partial eta squared = .00. The experience of postnatal debriefing did not significantly effect POBS scores of the treatment group compared to the control group.

There was a statistically significant main effect of Time, $F(2, 122) = 4.29$, $p = .02$, Wilks' Lambda = .94, partial eta squared = .06. The significant effect of Time was examined for all participants using a one-way repeated measures ANOVA across the three postnatal assessment points. There was a significant difference between participant's scores on the POBS between the second and fourth assessment points, $F(1,123) = 3.93$, $p = .05$, partial eta squared = .03. There was no significant difference between participants' scores on the POBS between the second and third assessment points, $F(1,123) = 3.53$, $p = .06$, partial eta squared = .03. There was a trend for all participants positive perception of their birth experience to decrease by three months postpartum, irrespective of Treatment Condition.

3.2.7 Hypothesis 7

A 2 x 2 x 2 (Treatment Conditions x Time of Assessments x History of Sexual Abuse) SPANOVA was conducted to explore the effect of postnatal debriefing on sexually abused participants' perception of trauma, as measured by the Impact of Events Scale (IES). The IES data was collected at Assessment points 3 (one month postpartum) and 4 (three months postpartum). There was no statistically significant effect of Abuse, $F(1, 124) = 0.12$, $p = .73$, partial eta squared = .00. Sexually abused women did not have significantly higher scores on the IES at one and three months postpartum, than non-sexually abused women, irrespective of treatment condition.

There was no significant interaction between Time and Treatment Condition, $F(1, 124) = 0.17$, $p = .68$, Wilks' Lambda = 1.00, partial eta squared = .00. There was no significant interaction between Time and Abuse, $F(1, 124) = 0.55$, $p = .46$, Wilks' Lambda = 1.00, partial eta squared = .00, nor was there a significant interaction between Abuse, Time and Treatment Condition, $F(1, 124) = 0.18$, $p = .67$ Wilks' Lambda = 1.00, partial eta squared = .00. Likewise, there was no statistically significant effect of Condition, $F(1,124) = 1.60$, $p = .21$, partial eta squared = .01.

There was a statistically significant effect of Time, $F(1, 124) = 7.51$, $p = .01$, Wilks' Lambda = .94, partial eta squared = .06. Comparisons between participants' IES scores, between the two assessment points, revealed that participants' scores on the IES decreased over time between the third ($M = 9.42$, $SD = 10.17$) and fourth ($M = 6.92$, $SD = 8.61$) assessment points, regardless of their experience of sexual abuse or whether they had received debriefing.

3.2.8 Hypothesis 8

An Independent Samples t -test was conducted to investigate the effect of postnatal debriefing on parental levels of stress, as measured by the Parenting Stress Index (PSI). Parenting stress was gauged at Assessment point 4 (three months postpartum) only. There was no significant difference in PSI scores between women who were debriefed ($M = 63.28$, $SD = 18.16$), and women in the control group ($M = 64.30$, $SD = 18.38$), $t(143) = 0.33$, $p = .74$. Postnatal debriefing did not effect the participants level of parental stress at three months after delivery.

3.2.9 Hypothesis 9

The response of all participants to the experience of postnatal debriefing, as measured by the Feedback After Debriefing questionnaire (FAD), was investigated using t -tests and descriptive statistics. The FAD data was collected from participants in the Treatment Condition at Assessment points 2 (two days postpartum) and 4 (three months postpartum). A paired samples t -test was conducted to evaluate the responses of participants in the Treatment Condition, on the FAD, at the two assessment points. There were 65 completed pairs of questionnaires. There was no statistically significant difference in FAD total scores from assessment point 2 ($M = 81.95$, $SD = 11.20$) to

assessment point 4 ($M = 80.75$, $SD = 12.62$). Women who had been debriefed rated the experience in a similar way at two days after the birth, as they did three months later, $t(64) = 0.98$, $p = .33$.

An independent samples t -test was conducted to compare the FAD scores of women in both the treatment (at Assessment Point 4), and control (just after Assessment Point 4) groups. Data were available for 111 women. There was no significant difference in scores between women in the treatment group ($n = 66$, $M = 80.85$, $SD = 12.55$) and those in the control group ($n = 45$, $M = 78.47$, $SD = 9.75$). All participants rated their postnatal debriefing in a similar fashion, whether it took place two days after delivery or three months after delivery, $t(109) = 1.07$, $p = .29$.

Given that these analyses revealed no significant difference on FAD scores, either between (Time of Assessments) or within (Treatment Condition) the groups, descriptive statistics at assessment point 4 (three months postpartum) were considered valid for all participants. Complete data were available for 119 women as 20 women from the control group did not attend for debriefing at this time and FAD questionnaires were not received from 10 participants.

Table 14 shows the percentage of women who endorsed each response to every item in the FAD and illustrates the perceptions of women concerning their debriefing experience. Over 90% of participants reported that debriefing was not threatening (97.5%), or intrusive (91.5%) in any way and that it was very (21.0%), or extremely (73.1%) important for all women to have the chance to be debriefed. The majority of women (95.7%) indicated that they had received information that was moderately to extremely useful. Over 80% of participants felt willing to talk about their birthing, and comfortable talking with the midwife.

3.3 Summary of Data

A summary of study data is included to facilitate a comprehensive review of information gathered. The summary consists of Tables 15 and 16, which include antenatal and postnatal information. Table 15 presents the number and percentage of participants who scored at specific intervals on the EPDS, IES and STAI across time. In general, the number of participants with lower scores increased across time for each measure; these lower scores indicated fewer psychological symptoms for participants overall. Table 16 provides descriptive data for the EPDS,

STAI, DAS, IES and POBS across the assessment points for both control and treatment groups.

Overall, scores tended to move in a positive direction for all participants, irrespective of debriefing condition.

Table 14

Percentage Response to Feedback After Debriefing Questionnaire Items

Item <u>n</u>	Not at all	Somewhat	Moderately	Very	Extremely
1. Chance to talk?	2.5	10.1	18.5	27.7	41.2
2. Soon after birth?	3.4	10.1	19.3	21.8	45.4
3. Understanding now?	4.2	7.6	11.8	30.3	46.2
4. Debriefing threatening?	97.5	1.7	0	0	.8
5. Added to understanding?	0.8	7.6	11.8	38.7	41.2
6. Useful information?	0.8	3.4	13.4	40.3	42.0
7. Willing to talk?	4.2	3.4	8.4	42.9	41.2
8. Changed feelings?	32.2	15.3	21.2	15.3	16.1
9. Aware of opportunity?	1.7	15.3	28.0	26.3	28.8
10. Debriefing intrusive?	91.5	1.7	4.3	0	2.6
11. Influenced view now?	31.4	22.9	16.9	13.7	15.3
12. Midwife different?	16.0	18.5	25.2	20.2	20.2
13. Comfortable to talk?	0.8	3.4	5.1	39.0	51.7
14. Helped confidence?	9.3	5.1	24.6	37.3	23.7
15. Settled fears?	7.7	14.5	25.6	32.5	19.7
16. Satisfactorily Informed?	0	0.8	10.1	36.1	52.9
17. Part of hospital case?	0.8	1.7	11.9	34.7	50.8
18. Easy to talk?	0.8	0.8	2.5	20.2	75.6
19. Important to women?	0	1.7	4.2	21.0	73.1
20. Debriefing satisfaction?	0.8	2.5	1.7	29.4	65.5

Note. This table presents abbreviated forms of FAD items, full text is in Appendix N.

Table 15

Participant Interval Scores on Prepartum and Postpartum Measures

	Assessment Point					
	<u>Antenatal</u>		<u>One month post</u>		<u>Three months post</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
EPDS-DEPRESSION						
0-12 low	134	90	112	83	126	87
13-30 high	15	10	23	17	19	13
IES-TRAUMA						
0-8 (low)			72	53	96	66
9-19 (medium)			47	35	34	24
20-40 (high)			16	12	15	10
STAI-ANXIETY						
STAI-STATE						
20-30 (low)	72	48	72	54	92	64
31-50 (medium)	69	47	52	39	47	32
51-80 (high)	8	5	10	7	6	4
STAIT-TRAIT						
20-30 (low)	58	39	58	43	80	55
31-50 (medium)	78	52	67	50	52	36
51-80 (high)	13	9	9	7	13	9

Note: Prepartum EPDS cut-off score was 0-13 = low 14-30 = high (Murray & Carothers, 1990).

Postpartum EPDS cut-off score was 0-12 = low, 13-30 = high (Milgram & McLeod, 1996).

EIS cut-off score was 0-8 = low, 9-19 = moderate, 20-40 = high level of distress (Lyons, 1998).

STAI – Anxiety cut-off score 20-30 = below 40th percentile, 31-50 = between 41st and 88th percentile, 51-80 = 89th – 100th percentile (Spielberger, 1983).

STAI – Trait cut-off score 20-30 = below 28th percentile, 31-50 = 30th and 91st percentile, 51-80 = 92nd and 100th percentile (Spielberger, 1983).

Table 16

Descriptive Statistics of Treatment and Control Groups Outcome Measures at all Assessment Points

	Assessment 1 – antenatal				Assessment 2 – postdelivery				Assessment 3 – 1 month past				Assessment 4 – 3 months past			
	Treatment		Control		Treatment		Control		Treatment		Control		Treatment		Control	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
EPDS	7.16	4.90	7.34	5.04					6.39	5.10	6.75	4.86	6.30	5.35	5.59	5.16
STAI	69.16	20.53	66.05	19.85					65.97	20.80	65.50	18.63	64.16	21.38	60.80	18.27
right now	33.33	10.76	31.70	10.21					31.91	10.57	31.27	9.59	30.51	10.85	29.20	19.15
Generally	35.80	10.79	34.47	10.33					34.06	11.46	34.22	10.03	33.65	11.68	31.61	9.94
DAS	115.95	17.82	117.42	15.08									116.03	17.45	112.20	18.10
Cohesion	16.49	3.95	17.33	3.69									16.83	4.15	16.41	3.67
Expression	9.52	1.95	9.45	2.14									9.12	2.18	8.36	2.26
Satisfaction	39.19	8.08	39.99	5.47									39.71	7.13	38.49	7.82
Consensus	51.03	7.55	50.70	6.73									50.38	6.81	48.80	7.27
IES									10.58	11.34	7.97	8.36	8.16	9.49	6.96	9.76
Intrusion									6.82	6.77	5.13	2.64	5.08	3.19	4.35	5.92
Avoidance									3.63	5.41	2.64	4.48	3.19	4.89	2.61	5.05
POBS					98.82	15.65	98.27	16.97	101.00	20.01	98.92	18.18	98.96	21.91	93.44	22.15
IIS [28					106.00	13.69	100.25	16.06	111.31	15.54	99.72	18.30	109.86	17.03	96.19	17.66
IIS μ 29					92.97	15.18	97.03	17.07	93.03	19.45	98.60	18.85	89.92	22.70	92.83	23.13

Chapter 4: Discussion of Results

This study contributes to the research evidence which evaluates the effectiveness of postnatal debriefing on psychological indices. It is based on a community sample which is broadly representative of the psychosocial and demographic characteristics, and childbearing experiences, of primiparous and multiparous women in a provincial Victorian city. The self-report psychometric outcome measures employed have a history of use in the literature, and are regarded as a reliable data set on which to base the findings. Broadly speaking this study supports the evidence of previous authors which found no significant effect of postnatal debriefing. Results of the study are presented here on the basis of individual hypotheses, before consideration of the implications and limitations of the study and recommendations for future research are discussed.

4.1 Hypothesis Testing

4.1.1 Postnatal Depression

Hypothesis One proposed that debriefed women would be less likely to develop symptoms of postnatal depression (EPDS score) at one or three months postpartum than non-debriefed women, regardless of prepartum symptoms (EPDS score). This hypothesis was rejected, confirming the results of previous Australian studies (Henderson et al., 1998; Small et al., 2000) which used the same measure. The tendency for debriefed women to report more depression than non-debriefed women, noted by Small et al. (2000), was not evident in the current sample. EPDS scores decreased steadily over time for all participants, including those who had evidence of depression (EPDS score of 13 or less) in the prepartum. The significant interaction for women with elevated antenatal depression scores may be accounted for by regression to the mean.

Postnatal depression is an individual response with multiple possible contributing factors from biological, psychological and social systems according to the biopsychosocial model. The role of postnatal debriefing in the prevention of postnatal depression is to

minimize the effect of exacerbating factors, relevant to the birth experience, which may influence the development of depressive symptoms. However other contributing factors still exist, within the context of the woman's life. A woman may be at risk of postnatal depression due to a variety of factors unrelated to the birth experience which postnatal debriefing does not and cannot address. Boyce and Condon (2001) in their criticism of the Small et al. (2000) study in fact, question whether a single session of debriefing could have an impact on postnatal depression when other psychosocial variables contribute perhaps more significantly to its onset. This study measured EPDS responses at one and three months postpartum, the two previous studies measured EPDS responses at six months. Postnatal depression may develop up to six months postpartum so the current study does not allow for women who may have developed postnatal depression between three and six months postpartum. Nonetheless the range of measures used would indicate that isolating those at risk will not be easy.

4.1.2 Levels of Anxiety

Hypothesis Two proposed that debriefed women would be less likely to exhibit symptoms of increased state anxiety, from the prepartum level to one or three months postpartum (as measured by STAI), than non-debriefed women. This hypothesis was rejected as the state anxiety level of all participants decreased over time regardless of treatment condition. Given that Green (1998) has shown that state STAI scores correlate strongly with EPDS scores in both the prepartum and the postpartum and that Hypothesis One was rejected, this result is consistent with previous findings.

4.1.3 The Dyadic Relationship

Hypothesis Three proposed that debriefed women would experience less change in their levels of dyadic satisfaction (as measured by the DAS), over time than non-debriefed women. This hypothesis was rejected as although debriefed participants' levels of dyadic satisfaction increased slightly, and non-debriefed participants' levels decreased slightly, between antenatal and postnatal assessments, the difference was not significant. Again, as dyadic

satisfaction is a strong predictor of postnatal depression (Webster et al., 1994), and debriefing did not effect postnatal depression, this result is consistent with the results of Hypotheses One and Two. Perusal of Table 15 shows in fact that non-debriefed womens' scores on all subscales of the DAS decreased between the two assessments and debriefed women's scores decreased on two subscales and increased on three, however, the difference was not significant.

There was a significant effect of time on all DAS subscales, except cohesion, perhaps reflecting the influence of maternal adjustment to the presence of an infant within the dyadic relationship. An interaction of time with debriefing was revealed for the dyadic cohesion subscale, scores on which increased over time for debriefed women and decreased over time for non-debriefed women. Debriefed women reported a significantly higher level of shared activities and interests with their partner, three months after they had become parents. While it is premature to speculate on the meaning of this outcome, it may be said that debriefing appears to influence a woman's relationship with her partner in at least one positive direction.

4.1.4 Post-traumatic Stress Disorder

Hypothesis Four proposed that debriefed women would be less likely to exhibit evidence of PTSD (as measured by the IES) from their birth experience, at one or three months postpartum, than non-debriefed women. This hypothesis was rejected as levels of trauma reduced over time for all participants. This finding is in conflict with the trend reported by Small et al. (2000) which suggested a negative effect of postnatal debriefing on traumatised women. However, the Small et al. (2000) study focussed on women with operative delivery only, whereas the present study included all births. All participants level of trauma reduced over time which is consistent with the writings of those such as Turton et al. (2001) concerning spontaneous reduction of trauma symptoms over time. Also it is known from numerous studies that there is a high spontaneous remission rate among trauma survivors who receive no treatment and that a placebo effect surely accounts for some of the

success reported by many participants (Stuhlmiller & Dunning, 2000). It is to be noted that these authors are not referring to postnatal debriefing specifically. Mean scores of the IES for the participants in this study were not as high as have been reported in previous studies (Allen, 1999; Lee et al., 1996; Lyons, 1998), and this may be a reflection of the quality of care delivered at the participating hospital, acting as an extraneous variable.

Debate surrounding the efficacy of psychological debriefing per se, which may be equally applied to postnatal debriefing, centres around two key issues. First, it has been suggested that debriefing could have adverse psychological effect due to re-traumatizing of the person who may prefer to use avoidance as an adaptive response (Lee et al., 1996; Small et al., 2000; Wessely et al., 1999). Second, if the individual has been severely traumatized, one session of brief therapy is not adequate to allow for reflection, incorporation of the experience and appropriate adaptation, the processes will be left incomplete, exacerbating rather than ameliorating distress (Kenardy, 2000; Wessely et al., 1999). Neither of these effects appeared to be relevant to this study population, given the lack of a significant result in either direction. Evidence from randomised trials is critical to the resolution of this issue. Further examination of traumatised sub samples may show particular effects of debriefing but clearly at the population level, postnatal debriefing is having a profound effect.

A third issue particular to postnatal debriefing is that a similar birth experience may be perceived as traumatic by one woman but not by another, due to the influence of differing modes of appraisal and other mediating variables. This begs the question of what is appropriate to the individual — a birthing review and/or assessment and treatment for PTSD. It seems that postnatal debriefing as a psychologically based intervention runs the risk of over-treating some women, and under-treating the remainder although there is no evidence for this in the present study. Similarly, it needs to be remembered that chronic disorders such as PTSD result from the combined effect of several factors, and that whatever happens

immediately after exposure to a traumatic event (including the treatment provided) may have only a limited influence on the final effect of traumatization (Shalev, 2000).

4.1.5 Perception of the Birth Experience

Hypothesis Five proposed that debriefed women would have a more positive perception of their birth experience (as measured by the POBS), at one and three months postpartum, than non-debriefed women, despite the degree of intervention (as measured by the IIS) experienced. Results confirmed that women's positive perception of their birthing are significantly affected by the degree of medical intervention they experience and the hypothesis was rejected. Debriefed women were more positive about their birthing than non-debriefed women after one or three months, but only if they had experienced less medical intervention. Debriefing was effective for women who had less medical intervention as they maintained a more positive perception of their birthing experience over time than non-debriefed women. The same effect was not evident for women who experienced more medical intervention. The fact that debriefing showed no signs of benefiting women who had experienced greater medical intervention adds weight to the view that the intervention has limited impact. The finding is consistent with Cranley et al. (1983) who found less positive perceptions of birth among women who were delivered by caesarean.

4.1.6 Sexually Abused Women

Hypothesis Six proposed that the experience of labour and delivery (as measured by the POBS and the IIS) would be more difficult for women who had been sexually abused. This hypothesis was rejected. The experience of childbirth and of birthing trauma for sexually abused participants did not differ from that of participants who had not experienced sexual abuse. This finding can be interpreted as bringing into question the veracity of anecdotal evidence and case studies offered in the literature (Crompton, 1996; Madsen, 1994; Rhodes & Hutchinson, 1994) concerning sexually abused women. Again, failure of treatment to interact with the abuse classification is of note. This result must be viewed with some caution

as the sample of sexually abused women was small ($n = 23$), although not atypical. Also, it must be acknowledged that the assessment for gauging the presence of sexual abuse was somewhat simplistic being a single yes/no question on the Background Information Questionnaire.

Hypothesis Seven proposed that debriefed, sexually abused women would have significantly lower scores on the IES, at one and three months postpartum, than non-debriefed, sexually abused women. This hypothesis was also rejected. Critics such as Powell (2001) propose the defining of subgroups of women in the investigation of the efficacy or otherwise of postnatal debriefing. Sexually abused women formed a subgroup of this study population, delineated on the basis of anecdotal evidence (Madsen, 1994), case studies (Crompton, 1996) and qualitative research (Rhodes & Hutchinson, 1994) in the literature, whose experience of birth trauma and postnatal debriefing was investigated without significant effect. Again, there was a small number of women in each group (treatment $n = 12$; control $n = 11$) so this result has limited generalisability.

4.1.7 Parenting Stress

Hypothesis Eight proposed that debriefed women would experience lower levels of parental stress (as measured by the PSI), at one and three months postpartum, than women who were not debriefed. This hypothesis was rejected. Milgrom and McCloud (1996) have shown that women with postnatal depression rate their infant, and their relationship with their infant, more negatively than controls. Debriefed women in this study did not rate their infant nor their relationship with their infant differently than controls. There was no difference between the groups on levels of postnatal depression as measured by the EPPS, thus this result is consistent with that of Hypothesis One.

4.1.8 Women's Response to Debriefing

Hypothesis Nine proposed that women who were debriefed would rate the experience positively according to the responses on the Feedback after Debriefing Questionnaire. This

hypothesis was supported and is consistent with previous research (Henderson et al., 1998; Small et al., 2000) and anecdotal evidence. Allen (1999), for example, in a study of 61 women reported that a number of participants with a high score on the EPDS and/or the IES spoke of the benefit of talking to, or needing to talk to others, including health professionals about their experience. Women perceive the discussion of their birthing, and the sharing of information that takes place, to be helpful and report positively on the experience. The majority of women on the maternity ward of the participating hospital accept the opportunity of debriefing when it is offered, and women who have been debriefed after a previous birthing ask when their debriefing will take place.

4.2 Implications of the Study

This study confirmed the results of previous studies with regard to women's appreciation of the opportunity to talk and gain information about their birthing. It has also confirmed the results of previous studies which report that postnatal debriefing does not significantly affect psychological variables to the point of an intervention which may prevent depression, anxiety or trauma symptoms following childbirth. Depressed mood in pregnancy is a significant predictor of postnatal depression (Da Costa et al., 2000; Gotlib et al., 1989); however, this was not apparent in the present study.

Several years ago Alexander (1998) highlighted the lack of clarity of terminology along with the lack of systematic evaluation of postnatal debriefing. It seems evident that women appreciate the opportunity to review their birth experience with a midwife and clarify events (Bondas-Salonen, 1998; Charles & Curtis, 1994; Henderson et al., 1998; Small et al., 2000), however whether this review should comprise 'psychological debriefing' or some other form of self-reflection requires further examination. It may be that a birthing review as an opportunity for women to gain information about their birthing constitutes appropriate quality of care in its own right for those women who experience less medical intervention, regardless

of measurable psychological benefits. However, for those women who experience more medical intervention other protocols need to be developed and implemented.

Whereas studies of postnatal debriefing have been limited to depression, anxiety and trauma, this study has endeavoured to be more proactive in discovering what may be the possible effect of an intervention which enjoys acceptance without evidence. Maybe investigations have looked for evidence in the wrong areas; perhaps examination of factors such as levels of birthing satisfaction, or levels of complaints to maternity units may provide more fruitful exploration of postnatal debriefing. Interestingly, the number of official complaints against the maternity unit of the participating hospital in this study have declined. Two years preceding the introduction of postnatal debriefing there were four or five complaints per annum. Since the introduction of debriefing the number of complaints against the unit fell to three in the first year, thus far in the current (second) year (which is 75% completed) there has been only one complaint. It is the view of the nurse manager that issues which may have been instituted as formal complaints, if not addressed during the debriefing, are referred to her as a result of the debriefing and dealt with on the ward.

The critical issue is the evidence that a psychological procedure, in this case psychological debriefing, that is very widespread in its use may have adverse effects (Kenardy, 2001). It would be greatly concerning if postnatal debriefing, as an adaptation of that procedure to a specific population was found to have adverse effects, however that was not the case in this study. When identification of both the trauma and the victim is less clear, as in the birth experience, the evidence still tends to contradict the application of debriefing according to the study of Small et al. (2000). This large study found an indication of worsening psychological health in those given interventions, however the result was statistically significant in only one of eight subscales relating to depression. Overall there was no significant difference between the treatment and control groups on the measure of depression (Small et al.). It is concerning that a non-significant result in the specific area of

postnatal debriefing can filter through the literature (for example, Kenardy, 2001) as evidence to curtail the use of debriefing.

4.3 Limitations of the Study

This study is limited by statistical, methodological, and extraneous or confounding variable considerations. First, statistically speaking the number of measures used, ideally require a larger population to sustain the number of analyses performed at the .05 level of significance. Previous Australian studies cited (Henderson et al., 1998; Small et al., 2000) have utilized study populations of over 1000 participants, making them more statistically robust than this study which was carried out with limited resources.

Second, methodologically speaking, only self-report measures were used; there was no clinical assessment of depression, anxiety or birth trauma. However, given that the measures used (EPDS, STAI, SCL-90R, IES and POBS) have been consistently reported in the literature as having good psychometric properties and have been widely used in previous research, combined with the broad investigative nature of the study, it was reasoned that their use was appropriate. The SCL-90R was used as a screening device in the endeavor to control for variables of psychological pathology at a clinical level, however as there was no statistically significant difference between the groups on this measure it was not necessary to exclude any participants on this basis. In addition, the study could be criticised on the grounds that the final assessment of depression was made at only three months postpartum when there is evidence of increased incidence of depression between 3 and 9 months (Small et al., 2000).

The allocation of participants into treatment and control groups alternately represented a further limitation of the study. This quasi-random allocation increased the risk of selection bias, albeit inadvertently, by both the researcher (when presented with several potential participants simultaneously) or administrative staff (when directing women to the researcher's office). It is difficult to conceptualise how this problem could have been

resolved given that the recruitment process took place over several weeks. Some participants had already delivered their babies before recruitment was completed making randomised allocation impossible. The possibility of co-intervention by midwifery staff, on the basis of particular participants group allocation, represents a further limitation of the study. The opportunity for this to occur was increased by the coloured sticker representing group allocation attached to participants medical records which were available for all midwifery staff to view.

Also, generalisation of the results may be limited due to the provincial nature of the study population from which this sample was drawn. Future research needs to draw participants from both rural and urban areas. The study is limited because data was collected from female partners in the dyad only. Mauthner (1998) proposed that some of the limitations inherent in most of the research examining dyadic relationships and postnatal depression, could be addressed by gathering data from both partners and then examining the interpersonal dynamics of the dyad. Although this was addressed in the more recent Dudley et al. (2001) study, literature pertaining to depression in both dyadic partners is still limited and requires further examination.

Third, the study may have been inadvertently affected by confounding or extraneous variables. It was not possible to control for a variable such as different delivery staff, for example; however, as staff contribute to overall perception of the birth, it was reasoned that this factor would be reflected in POBS scores. More importantly the midwife who conducted the postnatal debriefings and distributed almost all of the post delivery questionnaires is also responsible for parenting craft in the hospital. When the study was well underway she revealed that she was making herself known (“making friends”) to all the women in the control group as the person who would be doing their debriefing at the conclusion of the study “so they wouldn’t feel left out”. There is no way of knowing whether this introduction influenced women’s expectations of their debriefing at three months after the birth, and their

subsequent response style on questionnaires. Likewise there is a sense in which postnatal debriefing is a naturally occurring phenomenon through mother's clubs, midwife postnatal home visits and other avenues of social support. Similarly, the presence of the 'debriefing research participant' sticker on participating medical notes may have encouraged ward staff to unconsciously "help" these women.

This study differs from previous studies where investigators organized the debriefing intervention specifically for the purposes of research. The study investigated an intervention which had been in practice in the participating hospital for eighteen months before the study began. The subjective experiences and perceptions of mothers, midwives, hospital staff, doctors and psychologists involved over this time were extremely positive to the practice and benefits of postnatal debriefing within the maternity unit, which in itself may have influenced results. Women who were expecting to be debriefed had high expectations from word-of-mouth and knew that at some stage they would receive debriefing. Outcomes demonstrated by highly trained providers can never be presumed to transfer into situations that are less ideal and where the individuals have less knowledge and a smaller skills base. Even though this study yielded few significant findings the obligation remains to demonstrate beneficial effects, raising important questions about the level of clinical training and the range of skills required by those working in this field (McFarlane, 2000).

4.4 Recommendations for Future Research

Given the current pressure for evidence-based practice, the long-term survival of debriefing per se depends on the defining of the relevant dimensions and finding a valid yardstick by which to measure them (Shalev, 2000). Longitudinal study would give a broader framework for treatment contingent on the woman's perception of the birth and the intervention, as well as allowing opportunity to assess the quality of the mother-infant relationship. There have been few longitudinal studies completed following trauma and very

few that are theory driven. Longitudinal studies are arguably the best way to provide information about risk factors and moderators and mediators of outcomes (Kenardy, 2001). Longitudinal qualitative research has been shown to be fruitful although challenging (Edwards & Ribbens, 1998; Miller, 1998).

The timing of post-traumatic interventions is of vital concern. If individuals disclose and process in the first two weeks post-trauma, and are then reluctant to disclose up till 6 weeks post-trauma, when ongoing adaptation is occurring, when is the most propitious time to intervene? According to Kenardy (2001) the appropriate time for intervention is once the first 5 weeks have passed after a general traumatic event. Distress after trauma typically reduces over time, stabilizing at levels that are proportional to the initial traumatic event. However, it may be that postnatal trauma is a particular case as the possibility of birth trauma is ever present if not expected.

Maybe investigators are testing the wrong parameters in the investigation of the effects of postnatal debriefing; assuming that usefulness of the process should be measured psychometrically. Perhaps the things which should be assessed are demonstrated differently; such as satisfaction with hospital care that does or does not include postnatal debriefing, reduction in the number of complaints about maternity care, and job satisfaction of midwives (when time is or is not allowed for birth review).

The IIS is a comprehensive scoring system to quantify the degree of intervention in childbirth, based on the ratings of women who have actually experienced the interventions. This avoids the consuming and costly process of extracting data from womens' maternity notes. The IIS is not able to give an exact quantification of the degree of intervention as it does not differentiate between women who experience an intervention once, for example, vaginal examination, or more than once, and it does not take into account the duration of an intervention, for example, external monitoring for 10 hours or 10 minutes. However the IIS could be an important tool in future research on the psychological effects of intervention in

childbirth (Clement et al., 1999); the field could be usefully extended further by standard cut-off scores for low, medium and high levels of intervention being ascertained, for this measure.

4.5 Discussion

Debriefing is relatively inexpensive and easy to deliver, but may have become the subject of blind belief which is pragmatic but mistaken. Earlier views which proposed that one or a few debriefing sessions could have long term effects may have been premature but there is a general sense among recipients that debriefing is both worthwhile and beneficial (Shalev, 2000). In the same way there is a general sense among women who have been debriefed postpartum that the experience was both worthwhile and beneficial. Postnatal debriefing is a somewhat different case to general trauma debriefing in a number of ways. First, the potential for traumatic birth is ever present and women are aware of this. While traumatic birth comes as shock it is never entirely unexpected. Second, as women are consumers of a maternity service they have a right to know the details of their case; freedom of information laws enshrine this concept. Third, childbirth is a natural activity and sharing of birthing information minimises the medicalization of this natural event even if the event has been traumatic. Fourth, due to a variety of other factors each woman processes her birth experience differently. Staff may not be aware that a birthing that appeared normal within their experience appeared traumatic from the woman's perspective.

The Victorian survey of recent mothers conducted by Bruinsma et al. (2001) found that most women felt that the postnatal response by midwives was too rushed and busy. Subsequently, it was recommended that greater quality of care be provided postnatally, before and after mothers are discharged from hospital, with an emphasis of support and reassurance, listening to women's concerns and promoting problem solving in response to the baby (Brown et al., 2001). Surely such quality of care would be well met by a birthing review

similar to postnatal debriefing in providing the new mother opportunity to clarify other important concerns in addition to discussing her birthing notes seems self-evident.

The term debriefing refers to a heterogeneous array of interventions and the conceptual basis is elusive (Shalev, 2000). Richard's (2001) finding that critical incident stress debriefing (CISD) delivered as part of an integrated stress management system, as opposed to CISD as a stand-alone treatment, in reducing morbidity after trauma is relevant here. However the findings of Richard's study are inconclusive as there was no control group comparison. Postnatal debriefing can be integrated as part of the whole postpartum care of women along with midwife visits, mothers clubs and family support. The social movement of debriefing has such a momentum that there is a profound belief that it must be provided for all and it is widely perceived as helpful by those who receive it. This certainly seems to be the case for postnatal debriefing. The powerfulness of beliefs driving the debriefing movement and the scientific face of providing evidence need to be tempered with wisdom (Raphael, 2000)

The safety and value of postnatal debriefing is not yet fully evaluated and further research is needed. That it may produce ethical issues if the process uncovers or creates complex problems requiring support from specialized services (Alexander, 1998; Clement, 1995; Robinson, 1998). Systematic research may be undertaken in maternity wards for this reason as the potential for trauma is always there and pretrauma measures can be taken routinely. This also raises the issue of litigation. It is surprising that doubt surrounding debriefing outcomes has not been the subject of legal proceedings — this is a good reason for prudence by practitioners.

4.6 Conclusion

As Raphael and Wilson (2000) point out the use of the term debriefing has powerful connotations which presume an activity with a formalised structure which has been derived from a militaristic model of intervention. The widespread use of the term debriefing to cover

all potential psychological interventions in association with life experience must be a cause for concern as is any suggestion of widespread use of this type of intervention for what is, in the majority of instances a normal and joyful experience. The recovery from childbirth should be understood and facilitated and not interfered with and pathologized, and if the 'normal' recovery from this experience includes forgetting of disaster, it may provide understanding relevant to normal recovery from other major life experiences and may be learned from.

Recommending debriefing for all women presupposes that childbirth is traumatic for all women rather than potentially traumatic for some women. The term birth review is preferable both semantically and practically as it carries with it no dramatic connotation. The results of this study indicate that while having the opportunity to discuss their birthing experience is regarded positively by women, there is little empirical evidence to support its routine use for reducing postnatal depression, anxiety, parenting stress or trauma.

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Appendix A. Condensed Postnatal Debriefing by Midwife Listeners Workshop Manual

WORKSHOP: WORKING PAPER

Postnatal Debriefing for Mothers by Midwife Listeners

Statement of authorship

This document is submitted in fulfillment of University of Ballarat requirements relating to practicum placements in the Doctor of Psychology program. I completed a 50-day placement at the Clinical Health Psychology Unit, Ballarat Health Services under the supervision of Anne Tudor, clinical psychologist in August 1999. One element of this placement involved the design and preparation of this workshop manual, and the co-presentation of the workshop. I acknowledge the co-operation of staff from Ballarat Health Services in the bringing to completion of this project. These staff include the maternity unit nurse manager Desley Beechey, the aboriginal liaison officer Jenny Muir, the executive secretary Bill Wallace, the librarian Norma Worswick, and the 18 midwives who attended the first postnatal debriefing workshop on May 7, 1999. Jo Speed from Djerriwarrh Health Service made valuable contribution of information and references.

I acknowledge in particular; the expertise, support, supervision and basic workshop design of Anne Tudor; enthusiasm, focalizing effort and practical midwifery input of Julie Moten, and the expert typing and presentation skills of Jan Griffin in the preparation of this manual.

Abstract

Ballarat Health Services has recently acquired funding for ten hours a week to be used in debriefing mothers after childbirth. Julie Moten has been appointed to facilitate this process and is supported by the Clinical Health Psychology Unit at the hospital. Postnatal debriefing may be seen in the context of providing total care; enhancing the birth experience by giving women the opportunity to explore their feelings and reflect on the birth experience in a safe and caring environment. Feedback from both the women and the midwives is extremely positive, women seeming to particularly appreciate being equipped with the facts and sequence of their labour. The practicalities of providing the debriefing service is the province of the midwifery floor. The Djerriwarrh Health Service for example, implements postnatal debriefing as part of the managed care plan which is signed off prior to discharge, however the midwifery unit there is much smaller than that at Ballarat. This workshop is designed to provide a forum about debriefing for midwives, including information about debriefing and basic counselling skills, with opportunity for discussion and skills development.

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INTRODUCTION

Emotional support for women has re-emerged as a positive practice that may assist in a shorter, easier and healthier experience of childbirth. The role of emotional support for women in the transition to parenting has also been recognized [1]. One element of support which is recognised by an increasing number of researchers is that of the woman being listened to, by health professionals [2,3] and nurses [4] as well as significant other people in her life [5,6,7]. There is a substantially increased risk of mental illness in women following childbirth [8]. Postnatal depression (PND) and Post-traumatic stress disorder (PTSD) are two disorders which seem relevant to childbirth and to traumatic birthing experiences.

Postnatal Depression

PND can be found in all social groups and to some extent across all cultures [5]. Women suffering from PND may exhibit symptoms of depression, anxiety, extreme tiredness, inability to cope and/or over anxiousness about their infant. In terms of severity PND lies between the transitory 'baby blues' which affects around 80% of mothers in the first few days after birth and puerperal psychosis which affects some 2% of mothers [9]. Around 15% of mothers experience a marked depressive illness in the months following childbirth, thus in any year in Australia there may be up to 58,000 women suffering PND [10]. Issues involved in the appearance of PND are varied [3], delivery by Caesarean section, in particular, appears to carry psychological risks that cannot be attributed to personality or other factors [11,12].

Post Traumatic Stress

PTSD is an anxiety disorder, characterized by re-experiencing, increased arousal, numbing and avoidance, which may follow confrontation with an extreme traumatic stressor [14]. There is some evidence that after a traumatic childbirth women may have symptoms typical of PTSD [14,15]. Several factors such as feeling powerless, lack of information, pain, and lack of consent have been shown to be related to occurrence of PTSD after obstetric and gynecological procedures [16]. Women's negative appraisal of the delivery has been significantly related to PTSD symptomatology [14]. The birth of a woman's first child has an enormous lifelong impact and her memory of the experience is vivid [17].

Psychological Impact of Childbirth

A range of circumstances, experiences and factors contribute to psychological stress and distress. Women's perceptions of birth may relate to pain, loss of control, or helplessness, and failure of health professionals to acknowledge individual perceptions may lead to mistreatment of a trauma-based condition [15]. Simkin [17] argues that the goal of a good memory as well as a safe outcome should guide the care of women at this time. Bondas-Salonen [19] reported that although post partum care takes low priority it has particular relevance as the transitional process to being a new mother occurs slowly but intensely. Women have revealed a need to integrate the birth experience by telling the story and sharing it in trust with their midwife [19].

Postnatal Debriefing

There has been a progressive development of prevention initiatives in the field of mental health [18]. Debriefing is a process that aims to help the person to assimilate and emotionally adjust to a traumatic event [21]. Debriefing is recommended 48 hours after an event as before this people are often not in any fit state to talk about their reactions [13]. Immediate social support after an incident is known as defusing [22]. Postnatal debriefing has evolved from a union between all of the factors we have discussed. First, the re-emergence of social and emotional supports as important elements in the recovery from childbirth and maternal role adjustment. Second, the possible association of PND and PTSD with traumatic birth, the influence of a positive evaluation of the birth experiences, the need of women to talk about their birth experience, and the unique place of the midwife. Finally, as an initiative to moderate the influence of negative birth experiences for the woman, her child, partner, and family [23]. Postnatal debriefing may prevent serious disorders manifesting, and give the mother the opportunity to integrate her birth experience with a caring and knowledgeable confidant.

The Role of the Midwife

Proponents of women's health recognize the benefit of emotional support to postpartum women. The support of partner, family and friends may be supplemented by specific emotional from the midwife such as postnatal debriefing which is relevant to competency standards for midwives. Maternal postpartum adjustment is affected by factors surrounding the birth event and other life factors. Midwives are not able to affect the impact of other life factors on the woman but they may influence her appraisal of the birth event. In principle all mothers should have the opportunity, of postnatal debriefing, in practice debriefing may be particularly relevant for some groups. Mothers of higher risk infants, for example [24]. In order to facilitate a debriefing process the midwife needs to either further develop listening skills.

Further Considerations

Postnatal debriefing may be located within a mental health framework [25]. Consideration of a number of factors may be useful to the midwife who contemplates using debriefing. Debriefing is accepted as reducing posttrauma psychological distress, but the paucity of studies warrants a need for vigilance relating to any negative effects or discrepancy between helpfulness and outcomes [26].

Conclusion

The evidence for the benefits of postnatal debriefing is largely anecdotal. A study at Djerriwarrh Health Service elicited only positive responses from women. This discussion appears to have focused on a worst case scenario of childbirth, for the majority of women childbirth is a wonderful, fulfilling experience as well as a normal life event; for these women debriefing serves as enrichment and closure.

INDIVIDUAL BIRTHING RESPONSES

A range of factors determine how mothers respond to the birth experience including prior experience, belief system, role in the birth, degree of direct threat, coping mechanisms, age, state of mind, current mental and physical health, and support systems. The following diagram provides some insight into all the different factors that influence how a traumatic birth will be processed [adapted from 29].

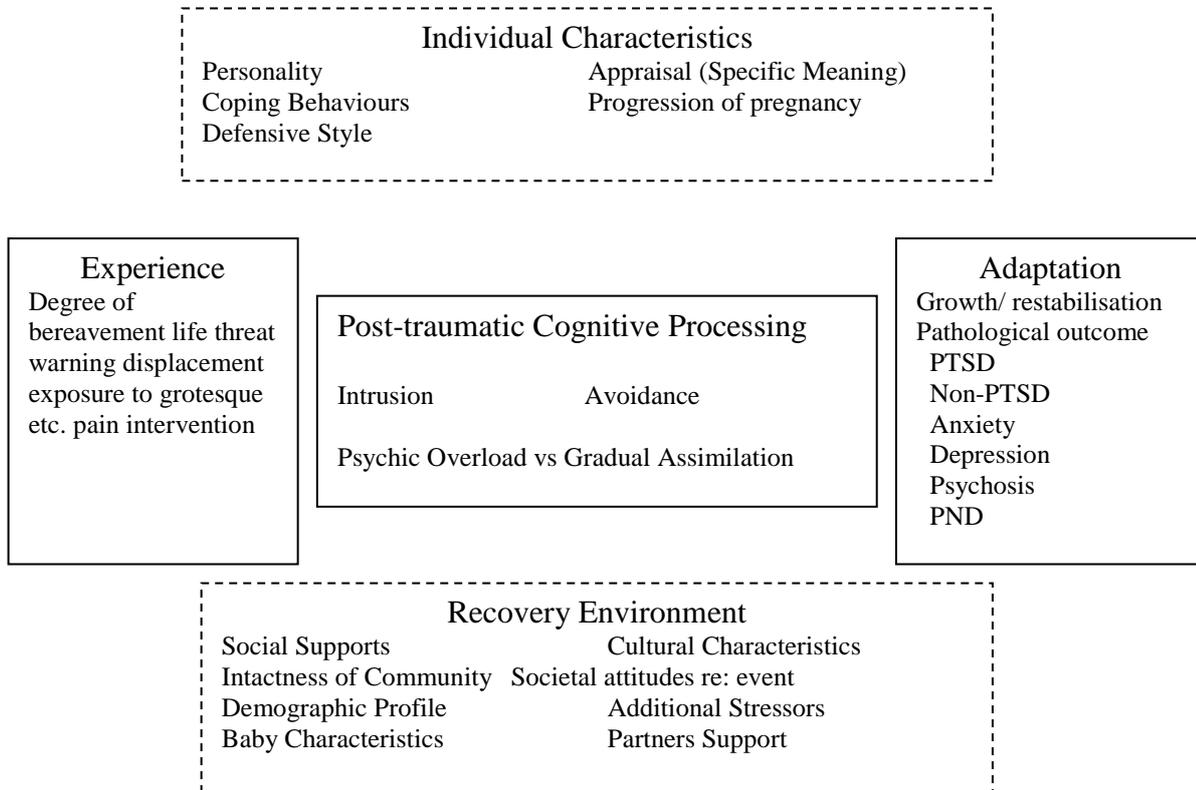


Figure 1. Schematic for the processing of traumatic birth

SKILLS OF REWARDING LISTENING [27]

Know the difference between you and me.

Helping listeners need to be aware of responding inside or outside their clients internal viewpoint. Responding from your external viewpoint is less helpful than responding from their internal viewpoint.

Possess an attitude of respect and acceptance.

Barriers to your accepting attitude influence how you think, act and listen and may include anxiety-provoking feelings, clients and situations, trigger words, phrases and attitudes, being prejudiced or having current personal unfinished business, needing to present a professional façade, emotional exhaustion and burnout, insufficient administrative support or working environment

Send good body messages.

Show the patient that you are available through body posture, facing the speaker, slight forward lean, eye contact, facial expressions, appropriate gestures, being sensitive to personal space, appropriate use of touch, and personal grooming.

Send good voice messages.

Voice messages can enhance the emotional atmosphere of listening. Dimensions include volume, articulation, pitch, emphasis, rate and using pauses and silences

Use openers, small rewards and open-ended questions.

Brief statements indicate that you are prepared to listen, encourage patients to continue speaking and allow them to elaborate their internal viewpoints.

Reward verbal content.

Rewarding focuses on what the patient has said, by reflecting the content you indicate understanding, attention and perhaps provide clarity for the patient.

Reflect feelings.

Good reflection of feelings involves picking up and communicating back non verbal as well as verbal messages. Check that your understanding is accurate.

Reflect feelings and reasons.

Sometimes you may reflect back the patients reasons as well as feelings if she has provided reasons. Use the framework. 'You feel Because ...' .

Avoid unrewarding 'don'ts'.

When patients self-disclose and experience their feelings more fully they need psychological safety and space. The creation of this space involves using the skills already mentioned and generally avoiding unhelpful 'don'ts'.

Develop your own thinking skills.

Poor helper thinking skills such as anxiety-engendering self-talk, unrealistic helping rules, inaccurate perceiving of what the patient says and does or making unwarranted assumptions can impede rewarding listening. Relevant thinking skills for identifying and clarifying patient concerns are, being aware that you make conscious choices in responding to the patient's story, using calming and coping self-talk, choosing realistic personal rules, and perceiving accurately.

Overhead 1: Postnatal Debriefing Workshop Summary

POSTNATAL DEBRIEFING WORKSHOP SUMMARY

1.00 – 2.30	First Session: The how, what and why of debriefing
Introduction:	Overview of workshop and work book (Anne) Overhead 1
Didactic:	Debriefing phases and protocols (Rosemary) Overhead 2 & 3
Role Play:	Good / Bad Debriefing (Rosemary, Anne, Julie)
Accreditation:	The supervised debriefing experience (Julie)
Skills Practice Exercise:	(Anne)
<hr/>	
2.30 – 2.45	Break
<hr/>	
2.45 – 4.15	Second Session: The how, what and why of counseling
Exercise 1:	Exploring counseling attitudes (Rosemary) Overhead 2
Didactic:	Listening and Attending skills – SOLVER (Anne)
	Open and closed questions. Getting in touch with feelings
Skills Practice Exercise:	Open and closed questions (Anne, Rosemary, Julie)
Feedback from Exercise 1 and discussion:	(Anne, Rosemary)
Game:	The midwifery debriefing maze on page 21. (Rosemary)
<hr/>	
4.15 – 4.30	Break
<hr/>	
4.30 – 6.00	Third Session: The how, what and why in practise
Presentation:	Experience of Djerriwarrh – Jo Speed
Activity:	Question time (Jo)
Vignettes:	Reactions and attitudes discussion (Anne and Rosemary)
Complete:	Evaluation Sheet (Julie)
Closure and feedback	

Overhead 2: Exercise 1. Exploring your Counselling Attitude [27]

Consider each of the following statements and tick whether you (A) basically agree, (D) disagree or (?) cannot decide. Answer all items.

1. The counselor should permit the client to solve his/her problem in his/her own way. (A) (D) (?)
2. The counselor should try to help the client see his/her problems in a logical way. (A) (D) (?)
3. The successful counsellor is one who is able to suggest solutions to the client's problems in such a way that the client feels that they are his/her own. (A) (D) (?)
4. In order for the client to benefit most from counseling he/she must be given unconditional acceptance by the counsellor. (A) (D) (?)
5. The counsellor does not have the right socially or professionally to allow a client to choose an inadequate or antisocial solution to his/her problem. (A) (D) (?)
6. The client should be allowed to indulge in self pity. (A) (D) (?)
7. The more information the counsellor has about the client prior to the counselling interview, the better he/she will be able to understand the client. (A) (D) (?)
8. If counselling is to be successful, the counselor must depend, for the most part on the client's own potential for growth. (A) (D) (?)
9. When the client makes conflicting statements, the counsellor should stay and get at the true facts in the situation. (A) (D) (?)
10. When the client does not understand the meaning of a particular piece of behaviour the counsellor should explain it to him/her. (A) (D) (?)
11. The counsellor should never take a client's statements at face value, since the client is not aware of the hidden import behind them. (A) (D) (?)
12. The goal of counselling is to make people better adjusted to society. (A) (D) (?)

Overhead 3: Goals of Postnatal Debriefing

GOALS OF POSTNATAL DEBRIEFING

- To give women opportunity to ventilate feelings, impressions, reactions to birthing
- To normalise her reactions
- To provide education about what happened
- To assist with practical and psychological strategies to promote recovery
- To assess the mother's risk of developing long term reactions
- To facilitate access to specialists if the mother requests it
- To help midwives evaluate their care by the feedback received
- To provide closure experience of care in labour and birth

Overhead 4: Benefits of Postnatal Debriefing

BENEFITS OF POSTNATAL DEBRIEFING

(Speed, personal communication March 17, 1999)

FOR THE WOMAN

- Acknowledgment of her labour and birth experience through reflection and the expression of feelings.
- Reclaiming of the birth experience through reviewing it.
- Personal empowerment through the opportunity to comment on the care by midwives and doctors in labour and postnatally.
- Clarification of the birth experience through the sharing of the partogram and the delivery summary.
- Education through the midwife sharing factual information about the labour and birth: apgar score, blood loss, length of labour etcetera.
- Normalising of certain behaviours in labour, e.g. in transition.
- Gives opportunity to discuss whether her needs and expectations had been met.

FOR THE MIDWIFE

- Increases knowledge and understanding of individual women's needs in labour and evaluation of how our care may effect outcome.
- Reinforces philosophy of women-centred care and the birthing partnership.
- Allows opportunity to evaluate effectiveness of birth plans, birth positions, pain management, and pain relief.
- Gives feedback on quality of care enabling a good closure to each woman's care, improving continuity of care and leading to increased job satisfaction.
- Confirmation of women's needs in labour.
- Reduces stress after difficult births.
- Encourages improved documentation in terms of clarity, accuracy and detail as delivery summary must be positive and free of jargon to facilitate debriefing.
- Increases awareness of women's emotional state postnatally.
- Helps insight into how partner feels in being involved in the birth process.
- Helps us to gain confidence in counselling care.
- Adds to professional development and makes us more accountable.

Overhead 5: Protocols for Postnatal Debriefing

PROTOCOLS FOR POSTNATAL DEBRIEFING

- The midwife at the birth should conduct the debriefing, or Julie Moten will do so.
- Midwife listeners should meet regularly as a group with the program facilitator
- Concerns about the birthing or debriefing to be referred to the nurse manager.
- A patient who, indicates that she is a danger to herself, her baby, should be referred to Social Welfare or the Clinical Health Psychology Unit
- Debriefing to be offered to all women on the midwifery floor
- Debriefing to be carried out by midwife listeners, with a minimum training
- Debriefing is to take place in the designated room
- The debriefing process may include the women's partner
- The woman should feel as though she is in charge of the process
- The debriefing process is essentially confidential
- The debriefing session should be timed (within reason) at the women's choice
- The midwife listener brings the labour progress notes and the partogram
- The midwife listener provides respect, empathy, warmth, and rewarding listening

Overhead 6: Phases of Postnatal Debriefing

PHASES OF POSTNATAL DEBRIEFING

General rule is facts, then thoughts, then feelings. Need to be flexible and sensitive.

1. **Introduction** - Convey to the woman that postnatal debriefing is listening to birth story, not therapy, confidential, non-judgemental, and includes sharing of her partograph delivery summary.
2. **Facts** - Would you like to talk about your birth experience now?
3. **Thoughts** - What was going through your head?
- What thoughts would you like to erase?
4. **Feelings** - How did you feel? How are you feeling now?
- How did the labour affect you?
- What was the worst thing for you?
- What was your reaction to sights/smells, etc.
5. **Symptoms** - What are you experiencing now?
- How have you been sleeping?
6. **Education** - It is natural to experience a variety of signs, symptoms, reactions. Clarify real events. Use the partograph and delivery summary to clarify events and answer questions.
7. **Reentry** - Summarise emotional reactions, convey expectation that this was a positive session. Ask for further questions.
8. **Follow-up?** Closure of session, offer information on support services

Overhead 7: Potential Issues Related to Birth Experience

POTENTIAL ISSUES RELATED TO BIRTH EXPERIENCE

Birth Story: The contribution of the Hospital, the Doctor, the Midwife, the Partner

Traumatic Birth: Caesarean, Forceps, Vacuum Extraction, Episiotomy, Danger to Mother and Baby, Haemorrhage, Epidural, Inadequate pain relief, Lack of Control.

Reactions: Normal cf. Idealised version, Expectations met/unmet, Family, Friends.

Feeding: Breastfeeding v Bottle feeding

Infant: Premature birth, Babies with special needs, Infants born at risk

Parenting Skills: How to perform this new role

Services Available: Phone, Practical, Community

Support/Expectations: Partner, Family, Social, Medical, Psychological

Myths?

POTENTIAL ISSUES RELATED TO DEBRIEFING EXPERIENCE

Willingness of the woman to engage in the process – it is her choice.

Awareness by the midwife that during the session the debriefing role is paramount.

Awareness by the midwife of cultural or religious characteristics of the woman being debriefed, for example, sustained eye contact may be disrespectful to Koori women.

Awareness by the midwife that women who have personal and particular issues may require a longer period of time for debriefing or a further referral.

Overhead 8: The Role of the Midwife Listener

ROLE OF THE MIDWIFE LISTENER

1. Facilitate the mother's expression of her birthing, and emotions during birthing,
2. To provide relevant and specific information about the birth events as requested.
3. To inform the mother about other professionals and services as required

The role of the midwife listener is not;

- To criticise others e.g. 'Doctor should not have used forceps'.
- To take sides or give opinions e.g. 'No, you shouldn't have been given gas':
- To talk about their own experiences e.g. 'When I had my first child'
- To say she knows how the mother feels e.g. 'I know just how you feel'.
- To make a judgement about the mother's feelings,
- To try to find something positive about the incident

The object of the delivery debriefing is for the mother to integrate her birthing experience therefore the midwife listener is listening to what actually happened and what the mother felt/feels about that.

Overhead 9: Rewarding Listening

REWARDING LISTENING

Nelson-Jones [27] concept of rewarding listening is both accurately understanding speakers communications and being rewarding for the speakers in the sense of showing that you have understood.

Skills in rewarding listening develop and maintain helping relationships via:

- Establishing and maintaining rapport as the postpartum patient feels understood.
- Helping her to disclose information as good listening helps her to feel accepted.
- Helping her to experience and express her feelings
- Creating a knowledge base without interrogation
- Creating an influence base by normalising feelings
- Helping the patient to assume responsibility for processing the birth experience.

Overhead 10: Care and Self-Care of the helping listener

CARE OF THE HELPING LISTENER [22]

The midwife may be affected by issues raised during the debriefing and her needs should not be ignored. She should be aware of having provision for venting her own reactions when necessary, perhaps with peer support professionals. Reducing stress experienced by the debriefer due to her own, the hospital or the patients expectations and the debriefing of the birth event (and processing of the debriefing event) is critical for the well being of the midwife listener.

SELF CARE OF THE HELPING LISTENER

The debriefing process requires a caring and professional attitude and a similar attitude to self. Assistance to others will be compromised if the debriefer's own coping mechanisms deteriorate. Appropriate self-care measures may include:

- Increasing self awareness, attending to physical and psychological energy flow,
- Acknowledging and understanding emotional reactions, caring for the inner spirit;
- Maintaining physical care with exercise, nutrition and sleep,
- Planning for balance in both work and leisure activities,
- Reducing relationship stresses and creating a supportive system,
- Setting realistic goals, maximising resources of time and energy;
- Reducing environmental stressors (noise, clutter), prioritising tasks,
- Assuming personal responsibility and being willing to change and seek help

Appendix B. Letter to obstetricians requesting permission to approach patients

Dear _____

I am a registered psychologist undertaking doctoral studies at the University of Ballarat, part of my studies includes a major research project. My area of research interest is the effect of postnatal debriefing on the psychological health of new mothers. As you are aware the maternity unit of the Base Hospital has introduced postnatal debriefing over the last 12 months. I plan to undertake a research project in this area over the next six months, using a randomised, controlled trial.

Ethical approval from the relevant committees at the University, and Ballarat Health Services has been granted.

Public patients will be recruited to the study via the Midwives Clinic through November, December 2000, and January 2001, and I would like your help in recruiting private patients to the study, over the same period. Currently, about half of the mothers delivered at Ballarat Health Services – Base Hospital receive postnatal debriefing. Women who agree to participate in this study will be divided into treatment and control groups. The treatment group will be debriefed before discharge, the control group will be debriefed at the conclusion of the study, three months after their debriefing. The nurse manager of the maternity unit will exercise discretionary exclusion criteria where, following a poor birth outcome, women may be withdrawn from the study.

I would appreciate it if you could mention this study to those prospective mothers who are due to deliver between January and April next year, and give them a copy of the enclosed letter, which explains my study and invites their participation. I hope to recruit women to the study around 36 weeks so that I can begin gathering data during the last month of their pregnancy.

I will be present at the Women and Children's Health Division meeting on September 14 if you have any questions and I will have copies of all questionnaires that I will be using, with me at that time for your interest.

Yours sincerely,

Rosemary Selkirk MAPS

Appendix C. Letter inviting participation in the study

Dear _____,

I am a student of psychology at the University of Ballarat, and, as part of my studies plan to undertake a research project at Ballarat Health Services. My work will be carried out under the supervision of Dr. Lesley DeMello and Dr. Suzanne McLaren from the University.

I am interested in women's feelings about their birth experience and the effect of postnatal debriefing. Postnatal debriefing has been introduced at the maternity unit of the Base Hospital in the last 12 months. Postnatal debriefing means that mothers may talk about their labor and delivery with a midwife and, ask questions about their birth experience. At present about half of the women giving birth at the hospital are offered postnatal debriefing before they are discharged.

I invite you to participate in this study. Your participation would mean that you may be offered postnatal debriefing *either* before you leave the hospital, or, within four months of the birth, at the conclusion of the study. Your participation would require you to complete questionnaires at the following times

- (a) during your last month of pregnancy (taking approximately 30 minutes),
- (b) two days after you give birth (taking approximately 10 minutes),
- (c) one month after you give birth (taking approximately 50 minutes), and
- (d) three months after you give birth (taking approximately 50 minutes).

One of the questionnaires asks for some background information about you and one asks for feedback about your debriefing experience. The other questionnaires are standardised questionnaires which have all been used by women participating in similar studies. They are to do with the way you feel emotionally and physically, your relationship with your partner, and your birth experience. There is quite a lot of reading involved; one of the questionnaires is very brief (10 questions) and one is very lengthy (90 questions). The other questionnaires are one page in length and contain from 15 to 36 questions on the page. Each questionnaire has been found to take from 5–15 minutes to complete, depending on the length. To complete the questionnaires you are required to simply mark your answer to short, sentence length questions. Written answers are not needed.

I am available to explain the project fully to you and answer any questions you may have. I can be contacted by phone at 53 324293 or 0418 172 095. If you agree to participate please sign and return (personally or in the reply paid envelope enclosed) the consent form. The first batch of questionnaires will be then made available to you.

I welcome your participation in this project and look forward to sharing the results with you in the latter half of 2001.

Yours sincerely,

Rosemary J. Selkirk, MAPS
 Telephone: 53 3242 93
 or 0418 172 095

Appendix D. University of Ballarat plain language statement and informed consent

1. PROJECT TITLE	The effect of postnatal debriefing on the psychological health of new mothers.
2. INVESTIGATORS	Dr. Lesley DeMello Dr. Suzanne McLaren Rosemary Selkirk
3. PLAIN LANGUAGE STATEMENT <i>(Explanation of project given to participant)</i>	<p>Ballarat Health Services – Base Hospital has introduced postnatal debriefing to the maternity unit. Postnatal debriefing means that mothers may talk with a midwife and ask questions about their birth experience.</p> <p>I am conducting a research project to find out the effects of postnatal debriefing. My research involves mothers filling out questionnaires in private and returning them to me in the reply paid envelopes. Some questionnaires are to be completed a month before your baby is due, others 2 days after the birth, one month after the birth and, 3 months after the birth. This will take from 10 minutes (at 2 days after birth) to 50 minutes of your time (at the other times). The questionnaires are to do with your background, how you feel emotionally and physically, your relationship with your partner, and, your birth experience.</p> <p>Women who consent to take part in this study will be divided into two groups; one group who are offered postnatal debriefing within three days of the birth of their child and one group who are offered postnatal debriefing three months after the birth of their child, that is, at the conclusion of this study.</p> <p>Confidentiality will be completely assured as the questionnaires will be arranged by number, and not by name. Your participation in this project will help me to discover the effect of postnatal debriefing and may be useful in helping the hospital improve the services offered to women.</p>
<p><i>Any questions regarding this project can be directed to the Principal Researcher</i> Dr Leslie DeMello of the School of Behavioural, Social Sciences and Humanities, Telephone number: 53279619</p> <p><i>Should you (i.e. the participant) have any concerns about the conduct of this research project, please contact the Executive Officer, Human Research Ethics Committee, Scholarship and Educational Development Services Branch, University of Ballarat, PO Box 663, Mt Helen VIC 3353. Telephone: (03) 5327 9765.</i></p>	

INFORMED CONSENT

4. Code number (if any) allocated to the participant.....

5. Consent (fill out below)

I, (name)
of (address)
(phone numbers)

hereby consent to participate as a subject in the above research study.

The research program in which I am being asked to participate has been explained fully to me, verbally and in writing, and any matters on which I have sought information have been answered to my satisfaction.

I understand that:

- all information I provide (including questionnaires) will be treated with the strictest confidence and data will be stored separately from any listing that includes my name and address
- aggregated results will be used for research purposes and may be reported in scientific and academic journals
- I am free to withdraw my consent at any time during the study in which event my participation in the research study will immediately cease and any information obtained from it will not be used.

SIGNATURE: **DATE:**

To be filled out where participant is under age - where appropriate.

Consent of minor:

I,of
.....
hereby consent to participate as a subject in the above research study.

SIGNATURE: **DATE:**

Consent of Parent/Guardian:

I,, parent/guardian of(minor's name)
..... (address)
hereby consent to (minor's name) participation
in the above research study.

SIGNATURE: **DATE:**

Appendix E. Background Information Questionnaire

Please mark your answer to these questions in the appropriate column.		Yes	No	Not Applicable
1.	Is this your first pregnancy?			
2.	Will this be your first baby?			
3.	Do you feel your pregnancy has been fairly normal so far?			
4.	Do you study full or part time?			
5.	Have you completed Year 12 at secondary school?			
6.	Have you completed, or are you currently undertaking post secondary study or training?			
7.	Does your partner study full or part time?			
8.	Do you have part time employment?			
9.	Do you have full time employment?			
10.	Do you intend to return to work within 12 months of this birth?			
11.	Do you intend to return to work within three years of this birth?			
12.	Does your partner have full time employment?			
13.	Does your partner have part time employment?			
14.	Do you feel reasonably secure financially?			
15.	Do you have family who will help you with the baby?			
16.	Do you have friends who may help you with the baby?			
17.	Do you intend to deliver your baby by caesarean?			
18.	Do you intend to breastfeed your baby?			
19.	Do you intend to have a birth partner?			
20.	Do you intend to use a birth plan?			
21.	Would you describe your relationship with your mother as good?			
	<u>The following questions are optional:</u>			
22.	Have you ever experienced sexual abuse? (If this question disturbs you, you may wish to contact me (ph 53324293) or the Centre Against Sexual Assault ph 53203933)			
23.	Have you ever experienced depression to the degree that you needed help from a doctor, psychologist or psychiatrist?			
25.	Have you ever experienced depression to the degree that you used alcohol or illegal drugs?			
26.	Have you ever experienced anxiety (panic) to the degree that you needed help from a doctor, psychologist or psychiatrist?			
27.	Have you ever experienced anxiety (panic) to the degree that you have used alcohol or drugs?			

Appendix G. Dyadic Adjustment Scale. Graham B. Spanier, PhD. (1989)

Appendix H. State-Trait Anxiety Inventory for Adults. Charles D. Spielberger (1968)

PARTICIPANT NUMBER: _____

DATE: _____

As you will soon be having a baby, we would like to know how you are feeling. Please UNDERLINE the answer which comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

In the past 7 days:

1. I have been able to laugh and see the funny side of things

As much as I always could	Definitely not so much now
Not quite so much now	Not at all

2. I have looked forward with enjoyment to things

As much as I ever did	Definitely less than I used to
Rather less than I used to	Hardly at all

3. I have blamed myself unnecessarily when things went wrong

Yes, most of the time	Not very often
Yes, some of the time	No, never

4. I have been anxious or worried for no good reason

No not at all	Yes, sometimes
Hardly ever	Yes, very often

5. I have felt scared or panicky for no good reason

Yes, quite a lot	No, not much
Yes, sometimes	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	Not very often
Yes, sometimes	No, not at all

8. I have felt sad or miserable

Yes, most of the time	Not very often
Yes, sometimes	No, not at all

9. I have been so unhappy that I have been crying

Yes, most of the time	Only occasionally
Yes, quite often	No, never

10. The thought of harming myself has occurred to me

Yes, quite often	Hardly ever
Sometimes	Never

Appendix J. Perception of Birth Scale.

Permission to copy and use this questionnaire was provided by R.T.Mercer, May 2000.

Appendix K. Intrapartum Intervention Scale. S. Clement, J. Wilson, & J. Sikorski (1999)
 Permission to copy and use this questionnaire was provided by S. Clements, August, 2000

Did you have any of these medical procedures during labor or for the birth of your baby? Please tick one column for each question.		Yes	No	Don't Know
1.	Did you have your waters broken by a midwife or doctor?			
2.	Did you have a drip or needle inserted into a vein in your hand or arm?			
3.	Did you have your labor started off by means of a pessary or some gel inserted high into your vagina?			
4.	Did you receive syntocinon, (a drug given through a drip), to start off labor or speed it up?			
5.	Did you have a catheter (thin tube) inserted into your bladder to drain urine?			
6.	Did you have some (one or more) vaginal examinations (internals) during labor?			
7.	Did you have an enema/suppository (something inserted into your rectum to help you to open your bowels)?			
8.	Did you have external monitoring via CTG (a transducer on your tummy attached to a monitor which measures your contractions and prints out the baby's heartbeat) at any point during labor?			
9.	Did you have internal monitoring (an electrode inserted through your vagina and clipped on to your baby's head which is attached to a monitor)?			
10.	Was a blood sample taken from your baby's scalp during labor?			
11.	Did you have a caesarean (an operation where the baby is delivered through a cut in your tummy)?			
12.	Did you have a forceps (or ventouse/vacuum) delivery?			
13.	Did you have an episiotomy (a cut to enlarge the vagina)?			
14.	Did you have gas and air (entonox) for pain relief during labor?			
15.	Did you use TENS (electrode pads stuck to your back which stimulate your body's natural painkillers)?			
16.	Did you have an injection of pethidine for pain relief during labor?			
17.	Did you have an epidural or spinal (a drug injected into your back which numbs the lower part of your body)?			
18.	Did you have a general anaesthetic (anaesthesia that makes you unconscious/asleep)?			
19.	Did you have an injection of syntocinon (a drug used to speed up delivery of the placenta/afterbirth) just as your baby was born?			
20.	Did you have any stitches (in your vagina or the surrounding area) after the birth?			

Appendix L. Scoring table for Intrapartum Intervention Scale.
Clement, Wilson and Siikorski, 1999

Appendix M. Impact of Events Scale. M.J. Horowitz, N. Wilner, & M.A. Alvarez, (1979)

Appendix N. Parenting Stress Index, short form. Richard R. Abidin, EdD (1995)

Appendix O. Feedback after debriefing questionnaire

Appendix P. Letter: Assessment Point 1 – final month of pregnancy

University of Ballarat

Dear Mother-to-be,

Thank you for agreeing to participate in this project. Enclosed is the first set of four questionnaires which I ask you to complete and return in the reply paid envelope.

Would you please post the questionnaires back before _____.

Your participant number is _____, and I will use this in future.

Best wishes for your birthing.

Yours sincerely,

Rosemary Selkirk MAPS

Appendix Q. Letter: Assessment Point 2 – two days after delivery

University of Ballarat

Dear Participant Number,

Congratulations!

Now that you have given birth would you please complete the enclosed questionnaires and return them to me in the sealed envelope as soon as possible.

These questionnaires are about your birth experience. Completion of the questionnaires should take about ten minutes..

Thank you for participating in this way.

Yours sincerely,

Rosemary Selkirk, MAPS

Appendix R. Letter: Assessment Point 3 – one month after delivery

University of Ballarat

Dear Participant Number,

It is now one month since you gave birth. Please complete and return in the reply paid envelope the enclosed questionnaires.

Although you have completed some of these questionnaires before it is important that they are completed again at this stage. The questionnaires are not in any particular order.

Thank you very much for your participation in this research project.

Yours sincerely,

Rosemary Selkirk, MAPS

Appendix S. Letter: Assessment Point 4 – three months after delivery, Control group

Dear Participant Number,

It is now three months since you gave birth. I hope that you and your baby are well. Please complete this final set of questionnaires and return them in the reply paid envelope as soon as possible. You may find it easier to complete them over a couple of days as I realise you are probably very busy. Although you have completed most of these questionnaires before it is important that they are completed again at this stage, they are in no particular order.

PLEASE COMPLETE AND RETURN ALL THESE QUESTIONNAIRES

BEFORE YOU GO TO YOUR DEBRIEFING.

As you did not receive debriefing before you left hospital please organise that now. Please ring Julie the midwife who will conduct your debriefing to arrange your appointment on 53204971 between 9am and 1pm weekdays. Julie is available for debriefing Monday to Thursday in the afternoons. Your debriefing will be held in the Education and Resource Centre on the ground floor of the hospital (go through the main entrance, follow the line along passage to the colourful mural and turn left), and will take less than an hour. Your partner is welcome to attend with you.

Thank you very much for your participation in this research project, your contribution has been most valuable. I will send you a copy of the results later this year when the analysis is completed. I take this opportunity to wish you and your baby well in the future. Again, should you be experiencing any distress or difficulties since the birth of your child you might find it helpful to speak with your maternal and child health nurse. Alternatively Libby Todd, the maternal and child health nurse from Family Wellbeing, is available on 5332 9406 or 0417 321 328.

Yours sincerely,

Rosemary Selkirk, MAPS

Appendix T. Letter: Assessment Point 4 – three months after delivery, Treatment group

Dear Participant Number,

It is now three months since you gave birth. I hope that you and your baby are well. This is the final set of questionnaires. Please complete and return them in the reply paid envelope as soon as you are able to do so. Like last time you may find it easier to complete them over a couple of days as I realise you are probably very busy. Although you have completed most of these questionnaires before it is important that they are completed again at this stage. The questionnaires are not in any particular order.

Thank you very much for your participation in this research project, your contribution has been most valuable. I will send you a copy of the results later this year when the analysis is completed. I take this opportunity to wish you and your baby well in the future. Again, should you be experiencing any distress or difficulties since the birth of your child you might find it helpful to speak with your maternal and child health nurse. Alternatively Libby Todd, the maternal and child health nurse from Family Wellbeing, is available on 5332 9406 or 0417 321 328

Yours sincerely,

Rosemary Selkirk, MAPS

Appendix U. Letter: Assessment Point 4 – withdrawn participants, Control group

Dear Participant Number.....,

Thank you for agreeing to participate in the research project about postnatal debriefing.

Unfortunately, I have not received your first set of completed questionnaires, which should have been returned before you gave birth. Perhaps they have been lost in transit, or you were unable to complete them in time; if you did complete them would you please return them *now*. Due to the nature of the study, it is necessary that *all* sets of questionnaires are completed for continued participation. If I have not received your questionnaires I must assume that you have withdrawn from the study. Information that you have already supplied will be destroyed as a safe guard of your confidentiality.

As you did not have the opportunity to review your labor and delivery with a midwife before you left the hospital I would like to offer that now in appreciation of your involvement to date. Julie, the midwife, is available for this on Monday, Tuesday, Wednesday or Friday afternoons, please phone her to arrange your appointment, you will reach her on 53204971 (9am-1pm weekdays).

The debriefing will be held in the Education and Resource Centre on the ground floor of the Base Hospital. Go through the main entrance, follow the red line on the floor around to the right, then left along the passage, straight past the paintings, through the EXIT door to the colourful mural and turn left, then right into the Centre. Your partner and baby are welcome to attend with you. I wish you all the best in the future.

Yours sincerely,

Rosemary Selkirk MAPS

Appendix V. Allocation of Questionnaire order at each of four assessment points

Assessment Point 1

EPDS	SCLR-90-R	DAS	STAI	STAI	DAS
SCLR-90-R	DAS	STAI	EPDS	DAS	SCLR-90-R
DAS	STAI	EPDS	SCLR-90-R	SCLR-90-R	EPDS
STAI	EPDS	SCLR-90-R	DAS	EPDS	STAI

EPDS	DAS	EPDS	STAI	SCLR-90-R	SCLR-90-R
STAI	EPDS	STAI	SCLR-90-R	DAS	EPDS
DAS	STAI	SCLR-90-R	DAS	EPDS	STAI
SCLR-90-R	SCLR-90-R	DAS	EPDS	STAI	DAS

Assessment Point 2

POBS	IIS
IIS	POBS

Assessment Point 3

EPDS	POBS	IES	STAI	STAI	IES
POBS	IES	STAI	EPDS	IES	POBS
IES	STAI	EPDS	POBS	POBS	EPDS
STAI	EPDS	POBS	IES	EPDS	STAI

EPDS	IES	EPDS	STAI	POBS	POBS
STAI	EPDS	STAI	POBS	IES	EPDS
IES	STAI	POBS	IES	EPDS	STAI
POBS	POBS	IES	EPDS	STAI	IES

Assessment Point 4

EPDS	FAD	DAS	STAI	POBS	IES	PSI
FAD	DAS	STAI	POBS	IES	PSI	EPDS
DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EPDS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS
PSI	EPDS	FAD	DAS	STAI	POBS	IES

DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EPDS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS
PSI	EPDS	FAD	DAS	STAI	POBS	IES
EPDS	FAD	DAS	STAI	POBS	IES	PSI
FAD	DAS	STAI	POBS	IES	PSI	EPDS

DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EDPS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS
FAD	DAS	STAI	POBS	IES	PSI	EDPS
PSI	EPDS	FAD	DAS	STAI	POBS	IES
EPDS	FAD	DAS	STAI	POBS	IES	PSI

FAD	DAS	STAI	POBS	IES	PSI	EDPS
-----	-----	------	------	-----	-----	------

DAS	STAI	POBS	IES	PSI	EDPS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EDPS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS
PSI	EPDS	FAD	DAS	STAI	POBS	IES
EPDS	FAD	DAS	STAI	POBS	IES	PSI
DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EDPS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS
FAD	DAS	STAI	POBS	IES	PSI	EPDS
EPDS	FAD	DAS	STAI	POBS	IES	PSI
PSI	EPDS	FAD	DAS	STAI	POBS	IES
EPDS	FAD	DAS	STAI	POBS	IES	PSI
DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EPDS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS
FAD	DAS	STAI	POBS	IES	PSI	EPDS
EPDS	FAD	DAS	STAI	POBS	IES	PSI
PSI	EPDS	FAD	DAS	STAI	POBS	IES
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EDPS	FAD	DAS	STAI
IES	PSI	EDPS	FAD	DAS	STAI	POBS
PSI	EPDS	FAD	DAS	STAI	POBS	IES
FAD	DAS	STAI	POBS	IES	PSI	EPDS
EPDS	FAD	DAS	STAI	POBS	IES	PSI
DAS	STAI	POBS	IES	PSI	EDPS	FAD
POBS	IES	PSI	EPDS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS
PSI	EPDS	FAD	DAS	STAI	POBS	IES
FAD	DAS	STAI	POBS	IES	PSI	EPDS
EPDS	FAD	DAS	STAI	POBS	IES	PSI
DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
IES	PSI	EPDS	FAD	DAS	STAI	POBS
PSI	EPDS	FAD	DAS	STAI	POBS	IES
FAD	DAS	STAI	POBS	IES	PSI	EPDS
EPDS	FAD	DAS	STAI	POBS	IES	PSI
DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EPDS	FAD	DAS	STAI

PSI	EPDS	FAD	DAS	STAI	POBS	IES
FAD	DAS	STAI	POBS	IES	PSI	EPDS
EPDS	FAD	DAS	STAI	POBS	IES	PSI
DAS	STAI	POBS	IES	PSI	EPDS	FAD
STAI	POBS	IES	PSI	EPDS	FAD	DAS
POBS	IES	PSI	EPDS	FAD	DAS	STAI
IES	PSI	EPDS	FAD	DAS	STAI	POBS