Emotional well-being of childbearing women: A review of the evidence

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Debra is a registered nurse and clinical psychologist. In 1990, while working in Victoria, the Ministerial Review of Birthing Services identified a consistently high level of postnatal depression in women. Importantly, the Review also identified that midwives and maternal and child health nurses felt inadequately prepared to assess and treat women suffering with postnatal depression. In response to the Review, Debra and a colleague, Dr Jan Horsfall developed and delivered a workshop around rural Victoria to over 200 nurses. This work began Debra's research interest in this area of reproductive mental health.

Debra is currently the Professor of Nursing and Health in the School of Nursing at the Nathan campus and the inaugural Director of the new Centre for Practice Innovation in Nursing and Midwifery. Debra has filled a number of senior administrative roles in the University including Head of School and Dean. She has completed a term on the Queensland Nursing Council and is currently a committee member of the QNC. This year she was appointed on the Nursing Reference Group of the National Institute of Clinical Studies. Debra is on the Executive of the Australian and New Zealand Association for Medical Education and Deputy Chair of the Ipswich Hospital Foundation. Debra is a Fellow of the Australian & New Zealand College of Mental Health Nurses and member of the Australian Psychological Association. Debra has written over 130 book chapters, refereed journal articles and conference papers. She regularly reviews for several journals and is on the Editorial Board of the International Journal of Mental Health Nursing and Focus on Health Professional Education.
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Abstract
Childbirth can be associated with a range of short and long-term psychological consequences. While postnatal depression is the most prevalent psychological condition associated with childbirth, several other disorders such as anxiety and post-traumatic stress disorder (PTSD) can occur but are often neglected in relation to postnatal depression. This paper argues that adverse events during childbirth can act as powerful triggers in the onset of anxiety, post-traumatic stress disorder (PTSD) and subsequently, postnatal depression. This lecture describes these conditions and reviews available evidence in terms of treatment of postnatal depression. Drawing on data gathered during two mixed method, longitudinal prospective studies with childbearing women (n = 800), case studies are used to illustrate the experiences of women during childbirth and the contribution of childbirth practices and postpartum care on subsequent maternal emotional wellbeing. Childbirth events involving life threat and personal injury were found to give rise to trauma reactions. Trauma symptoms in the postpartum period may be missed and their relationship to maternal emotional wellbeing may be overlooked. A review of the research evidence on treatment of PND identified several approaches – (1) pharmacological, (2) psychological; (3) combined pharmacological and psychological; (4) social support and relaxation; and (5) hormonal. The limitations of these studies are presented. It is argued that the efficacy of these treatments has not been clearly established and there is very little evidence available on which to make policy or practice recommendations. Further work in this area is warranted. Health professionals need to acknowledge the unique nature of childbirth for each woman and attend to the emotional aspects of care in order to minimize adverse psychological consequences.

Introduction
It is my pleasure to speak with you this evening on what I believe is an important but under-recognized public health issue. I have had a research interest in reproductive mental health for the past ten years and tonight I hope to bring together some of my research findings and those from a review of the broader literature. I will briefly describe PND and postnatal anxiety disorders, predominantly PTSD, use case
Childbirth is a complex life event characterized by rapid biological, social and emotional transition. The mildest and most common form of postpartum mood disturbance is the baby blues, which is characterized by a transient change in mood in the first few days and lasts from 24 to 48 hours. Symptoms include weepiness, irritability, insomnia, and anxiety. Prevalence is thought to be around 80% (Pit, 1973) and it is so common as to be regarded as a normal reaction resulting from hormonal changes immediately following childbirth. Although in some women, the blues may represent the onset of clinical depression (Paykel et al 1980).

At the other end is puerperal psychosis, which is extremely incapacitating, but relatively rare, occurring in one to two of every 1000 childbearing women (Kendell, 1985). It is characterised by severe depression, mania, hallucinations or delusions. Such severe disconnection from reality means that women with puerperal psychosis require hospitalization.

Between the baby blues and puerperal psychosis is postnatal depression (PND). It is the most prevalent mood disorder associated with childbirth and usually occurs within four to six weeks of childbirth. PND appears to present a similar symptom pattern to depression that can occur at any stage in life. There are differences however in the number, type and severity of depressive symptoms reported by postpartum women. In particular, PND is characterized by irritability, anger, having low energy levels, loss of interest and feelings of guilt.

**How common is PND**

Postnatal depression affects 12% to 15% of childbearing women, with prevalence varying from 3% to 30% depending on the method of assessment and when the assessment took place. In general, major depression in women has a peak onset during the childbearing years and is more prevalent in the first three months postpartum with 40% to 70% of cases having their onset at this time.

PND often persists for many months, with estimates that 25% to 60% of cases resolve within three to six months after birth and a further 15% to 25% will remit within 12 months. A smaller proportion will continue for years with inadequate treatment probably contributing to chronicity. Women with a first episode of depression following childbirth are less likely to experience depression at other times in their life but are more likely to experience postnatal depression with subsequent children. In contrast, women with a previous history of depression are more vulnerable to both childbearing and non-childbearing depressive episodes.

There appears to be a similar prevalence of PND in western and non-western cultures. However, the stigma of mental illness, culturally inappropriate assessment measures and under-reporting of symptoms may cause inaccurate assessment across cultures. Many women are too ashamed or afraid to seek professional help, while health professionals often fail to recognize or treat PND appropriately.

Our estimation of the prevalence of PND is often based on inconsistent timing of assessments and varying methods of diagnosis with small or under-representative samples. From a research perspective, relying entirely on self-report measures to assess depression may...
References


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produce questionable results (as higher estimates usually occur with self report measures than diagnostic interview schedules), but increasingly researchers are acknowledging that self-reports by women are valid indicators of distress.

Many women experience significant somatic (physical) and cognitive-affective (thinking-feeling) changes following childbirth, but may not be clinically depressed. These changes may be part of normal postpartum adjustment. This picture may be further complicated, however, if women are experiencing difficult marital and parenting adjustments in the early postnatal period. My colleague Joan Webster (2001) recently completed a Brisbane-based study that identified that women in a violent relationship are at increased risk for PND.

There are significant associations between maternal depression and marital relationship, the partner's level of depression, and the infant's cognitive, emotional and social development. Depression associated with childbirth is particularly important as the first year of childrearing brings additional responsibilities, personal disruptions and consequences in regards to relationships, loss of income and lifestyle changes.

Anxiety disorders and Post-traumatic Stress

Some researchers consider trauma experienced at, or around the time of birth, to result in posttraumatic stress disorder (PTSD) (Ballard et al 1996; Moleman et al 1992; Wijma et al 1997). PTSD is a complex set of symptoms mainly anxiety-related that result from and persist after exposure to extreme stress. According to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) (American Psychiatric Association, 1994) there are explicit criteria that must be fulfilled for a specific time period in determining PTSD (as outlined in Table 1). Firstly, the person must have experienced or witnessed an event that involves actual or threatened death or serious injury, or damage to self or others. Furthermore, the person's response should involve intense fear, helplessness or horror. The main symptoms of acute PTSD include persistent re-experiencing of the traumatic event, avoidance of stimuli associated with the event and emotional numbing, as well as symptoms of increased physiological arousal. Symptoms must last for at least one month and cause impairment in daily life. A diagnosis of PTSD is made when at least one re-experiencing, three avoidance and two arousal symptoms are reported.

The presence of trauma symptoms in birthing women has predominantly been described in retrospective case studies with limited generalizability to the broader population of birthing women. Four studies have specifically investigated the incidence of PTSD with large samples of women. A cross-sectional survey of 1640 Swedish women found that twenty-eight participants (1.7%) met the criteria for PTSD (Wijma et al 1997). In a community-based study in the United Kingdom, five hundred women were surveyed about the psychological stress associated with obstetric and gynecological procedures (Menne, 1993). Over one hundred (n = 102) respondents gave a history of an obstetric/gynecological procedure which was “very distressing” or “terrifying” and “still affecting them now”. Of these women, 6% (n = 30) satisfied diagnostic criteria for PTSD.

A recent study by Creedy et al (2000) aimed to determine the incidence of acute trauma symptoms and posttraumatic stress disorder (PTSD) in women as a result of their labor and delivery experiences, and identify factors that contributed to the women's psychological distress. The study employed
Table 1: Diagnostic Criteria for Posttraumatic Stress Disorder

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

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

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

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

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

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

hospital and it is therefore feasible to organize for targeted follow-up of these women. Appropriate referral mechanisms to mental health services should be instituted so women experiencing emotional distress which cannot be effectively addressed by a midwife or child health nurse can receive appropriate care (e.g. psychiatric liaison linked to maternity services)

During the postpartum period, women need to undertake important psychological work in order to re-establish assumptions about self and her view of the world as making sense and being safe. This requires attempting to gain some understanding of the events in a meaningful way and developing a sense of resolution. Reconciling a traumatic event requires a woman to think about her experiences, identify associated feelings, communicate and relate to others about the distress.

Maternity service providers need to be cognizant of the prevalence of these debilitating conditions and be able to identify women at risk for early referral to a mental health practitioner if appropriate. There is room for implementing changes to the provision of maternity services that reduce the rate of obstetric intervention and humanise service delivery as a means of primary prevention of PND and PTSD. Midwives should not shy away from providing women with the opportunity to talk about their birth using the framework described in this report as there is reassuring evidence that it does no harm, and indeed the majority of women found it helpful.
women’s perception of the helpfulness of the midwife and emotional wellbeing. Having the care of a midwife who is kind, respectful, informative, and “on-side” may be emotionally protective. Psychological / counselling training should be offered to midwives to improve their confidence and ability to provide emotional support for women. The relationship may also be enhanced if the woman and midwife come to know and trust each other as occurs in woman-centred midwifery (where the woman has the same midwife throughout the pregnancy). If trust and rapport is established, quality of care may be enhanced.

The incidence and severity of trauma and depression symptoms identified in the literature is of grave concern, particularly, as some staff may not identify their presence. Traumatized women may experience emotional numbing and dissociation as a result of the delivery that hinders their ability to engage with the baby and others. Alternatively, women may experience intense emotions that result in feelings of uncontrollable anxiety and an inability to make sense of what had happened. Accordingly, staff should provide numerous opportunities to discuss the birth and try to bring structure to the experiences of the woman in an adaptive, reality-oriented manner. The discussion should involve reviewing the chronology of events, providing an explanation for interventions and procedures and acknowledging feelings. It may also be necessary for staff to acknowledge issues of poor management and poor affective care. Robinson (1999) claims that women’s fears in relation to childbirth are iatrogenic in origin and result in women feeling unsafe and powerless. Health professionals need to reflect on their own practices and the service provided to women and aim to engender more choice and control. As the woman begins to understand the sequence of events during labour and birth, and makes sense of her feelings, she may be able to recapture a sense of fundamental safety and control (Miller, 1998).

Midwifery education and continuing professional education needs to emphasize counselling theory and skills such as paraphrasing and reflective listening as well as the philosophy underpinning person-centred psychotherapy. Midwives need increased awareness of the emotional needs of women and the possible adverse consequences if these needs are not met. Postgraduate training for midwives interested in specialising in counselling and mental health should be provided. This would offer an extended career pathway for midwives, as well as offer specialised care for women who are likely to experience trauma following childbirth.

The experience of obstetric intervention is consistently associated with the development of postpartum distress. A critical examination of the routine use of many obstetric interventions needs to be made. Future research needs to examine not only the use of interventions (both routinely and under emergency circumstances) but the administration of these procedures in the context of poor communication and inadequate information. Midwives and consumers should lobby for reduced obstetric intervention in childbirth, as there is a consistent relationship between obstetric intervention and the development of PTSD. Models of care which provide for continuity of care have the potential to both reduce the obstetric intervention rate and provide a more personalised approach to birth.

Effective follow-up in the community following discharge is important as PND & PTSD are debilitating and may have long-term consequences for the mother, the child and the family. Women at risk of developing acute and/or chronic PND & PTSD can be readily identified prior to discharge from both quantitative and qualitative data collection methods and used a prospective, longitudinal design. The sample consisted of women (n = 592) who gave birth at one of four teaching hospitals in the Brisbane metropolitan area between December 1997 and June 1998. Four to six weeks postpartum, telephone interviews were conducted to explore the women’s perceptions of the medical and midwifery management of the birth, intrapartum care, and to determine the presence of trauma symptoms. The study found that one in three women (33%) identified a traumatic birthing event and reported the presence of at least three trauma symptoms. Twenty-eight women (5.6%) met DSM-IV criteria for acute PTSD. The findings from this study identified that obstetric intervention and a perception of poor care are associated with the development of PTSD. These findings are consistent with other studies involving women who have experienced obstetric or gynaecological procedures (Menage, 1993; Ryding, Wijma, & Wijma, 1999b).

Given the lifetime prevalence of PTSD in the general population of around 4% due to events such as assault, rape and natural disasters (AIHW, 1998), Ayers & Pickering (2001) investigated if PTSD following childbirth could be a continuation of the disorder in pregnancy. They screened and excluded women suffering from PTSD during pregnancy but still found that 3% of women suffered from PTSD following childbirth and that 1.5% continued to report significant symptoms 6 months later.

Deering et al (1996) identified that PTSD rarely occurs alone and most often co-occurs with depression. Anxiety disorders such as PTSD and mood disorders such as depression are commonly evoked by a severe event. Finlay-Jones (1989) considered the role of severe events in terms of loss and danger, and showed that loss events were more important for depression and danger for anxiety. Many of the anxiety-based symptoms reported by traumatized women, for example, avoidance, sleep difficulties, trouble concentrating, and preoccupation with the birth, may also be interpreted as symptoms of depression and need to be delineated. Negative emotional states such as guilt, shame and anger are common in PTSD and also associated with depression (Joseph et al 1997). After birth a woman may experience guilt or anger about the things that she did or did not do. Women may also express feelings that they had let themselves down by not coping with the pain or by requiring more analgesia than anticipated. It is therefore particularly important to examine the symptoms of trauma in order to understand possible ensuing depression and provide appropriate care and intervention. There is a paucity of information on the identification of trauma from the woman’s perspective, and the long-term effects of distressing symptoms for them. I would like to present three case studies derived from the larger study to illustrate the experiences of women who perceived childbirth as traumatic. In each case the women experienced postnatal depression. Pseudonyms are used to protect the identities of the women.

Maggie

Maggie was not depressed or anxious during her first pregnancy and indicated that she felt well supported. At 40 weeks gestation her blood pressure was raised and labour was induced using prostaglandin gel. She subsequently had a syntocinon infusion, artificial rupture of membranes, an epidural, continuous electronic monitoring and seven vaginal examinations. After approximately 14 hours of labour the baby was delivered by vacuum extraction. Maggie said she needed “loads of stitches” and had “bad separation of my tummy muscles”. Her baby needed resuscitation, had “massive bruising on his head” and was admitted to the special care nursery. The baby was in an humidicrib for three days, developed jaundice and
Two hours later after another vaginal examination, Katie became frightened for herself and the baby because "I kept blacking out, my husband was scared and I thought he was going to lose it, and they didn't seem to be taking it seriously until I blacked out for the third time". Katie recalled, "I overheard the midwife calling for the doctor saying 'she is not well at all'. Due to the low blood pressure associated with the epidural, further analgesia was not administered and Katie's pain returned and she "used the gas for the next 2 hours until the baby was born". Just as the baby was being born a male midwife came into the room to view the birth. She said "no one asked me if that was O.K., he just came in, I had not met him before. I wasn't in the position for birth that I wanted, I was lying on my side because the midwives said that was best for my blood pressure and my bottom was exposed. I don't like it all on show. It was embarrassing". She said she feels that she was not kept informed, that decisions were made without taking her wishes into account particularly with regard to the method of induction, and that her labour was taken over by strangers. She said "I felt out of control" and "I still worry about what might have happened."

Since the birth she says, "I try not to think about it. It was frightening, frustrating, embarrassing and I feel traumatised". She reported difficulty sleeping because she feels "overstimulated". Katie now describes herself as irritable and prone to outbursts of anger, she has no interest in socialising and feels more intolerant and emotionally detached from people.

Shelley
Shelley was a primigravidae. During pregnancy she reported very few symptoms of depression, anxiety or stress and had good social support. Labour started with a "window" of pain remained. At the same time Katie's blood pressure dropped and she kept "passing out". The midwife suggested the baby was being born and "used the gas for the next 2 hours until the baby was born". Just as the baby was being born a male midwife came into the room to view the birth. She said "no one asked me if that was O.K., he just came in, I had not met him before. I wasn't in the position for birth that I wanted, I was lying on my side because the midwives said that was best for my blood pressure and my bottom was exposed. I don't like it all on show. It was embarrassing". She said she feels that she was not kept informed, that decisions were made without taking her wishes into account particularly with regard to the method of induction, and that her labour was taken over by strangers. She said "I felt out of control" and "I still worry about what might have happened."

Given the current demands on health service resources and the move towards EBP it is essential that further research be carried out to address the management of PND, the extent that treatment can improve the outcome for women, identify woman-centred outcome measures in both the evaluation and monitoring of treatment, evaluate effective models of delivery and evaluate the effectiveness of non-drug therapies and their role within the broad spectrum of other interventions.

Meaningful consultation with consumers is still in its infancy (Chambers 2000). However, the quality of clinical services is linked to consultation (UK Dept of Health 1999) and interventions for PND are more likely to be appropriate and effective if they are based on needs identified together with women with postnatal depression. Logically, the people who should be involved and consulted are those for whom the interventions are destined. None of the studies reviewed included service users. Women with postnatal depression and their partners should be involved in designing studies and interventions.

Based on the variable success of the interventions outlined in this paper and the premise that PND results from a multitude of individual and contextual factors, it is feasible that no single intervention can treat all episodes of PND. Thus a multi-faceted integrated approach involving links between primary care professionals and community and secondary care staff, patient education and involvement that would allow women to choose the intervention(s) that are most relevant to their needs should be explored. The transition to such an integrated model would require major changes in the way services are currently provided.

Implications for practice
The studies conducted to date and the review of the research literature identify important consequences for practice. There is evidence that PND & PTSD are often overlooked in routine clinical practice (Davidson, 1993). If PTSD is not recognised in women with depression then it is likely that counselling approaches (such as cognitive-behavioural therapy) that have been found to be effective in alleviating symptoms of PTSD (as well as co-morbid depression) will not be provided. Trauma that is not acknowledged and dealt with will manifest itself in a variety of destructive and negative ways. Women who have not processed the trauma associated with childbirth may experience depression, helplessness, self-destructive behaviours, marital difficulties, anger and hostility.

There was a strong association between

Katie
Katie’s first pregnancy and birth were uncomplicated. During her second pregnancy, there was no evidence of depression, anxiety or stress. Katie reported that she had good social support. She was induced at 37 weeks gestation for reasons of social support. She was planning her second pregnancy and birth to be a childbirth experience that she had to go through and staying with her mother out of town. Maggie described uncharacteristic angry outbursts and feeling detached or estranged from others for up to three months following childbirth.

Services for women with PND need to be accessible and acceptable to women, the majority of psychological interventions for PND have been provided by nurses who have routine contact with mothers and babies. The studies by Holden et al and Wickberg & Hwang showed that with brief training, health professionals could deliver effective treatment to women with PND. Seeley et al and Gerrard et al went on to show that with training health visitors could detect as well as treat PND.

Given the number of questions surrounding the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many women prefer not to take antidepressants, or may refuse medication it is important that the use of antidepressants and the fact that many w
Hormonal approaches to treatment

Currently there is no evidence of a link between hormones and postnatal depression (Harris et al. 1996). Although progesterone and oestrogen prophylaxis have been explored (Dalton 1985) limitations of these studies means that the efficacy of these preventative measures have not been clearly established. Lawrie et al (2000) conducted a Cochrane review of the role of progesterone and oestrogen in the treatment and prevention of PND. They included only one RCT double blind study by Gregoire et al (1996) with women who had severe and chronic PND. The women received either treatment with oestradiol skin patches or placebo patches. Ten out of 35 women dropped out of the study. Although a positive effect was reported, there was no consideration given to the influence of the women's menstrual cycle and if any of the women suffered from premenstrual syndrome. Furthermore 47% of women in the treatment group and 37% of women in the control group were already taking antidepressant medication.

Summary of the Evidence

Despite the relatively high prevalence of PND and the negative impact it has on the mother, her infant, older children, and her social and marital relationship, the quantity and quality of research on the treatment of PND is surprisingly limited. Indeed a comprehensive review by Boath 2001 identified only 30 studies. While there are good theoretical justifications for many of these treatment approaches, the methodological limitations of these studies means that the efficacy of these treatment approaches have not been clearly established and there is very little good evidence available on which to make policy and practice recommendations.

Despite the intuitive appeal of a link between a hormonal trigger and PND, there is no evidence to support this. The limitations of the only RCT that has been carried out (Gregoire et al 1996) means that many questions remain unanswered. There has been no study that has reported the use of oestrogen only on mood. Inevitably women in such studies have received some form of anti-depressant medication or counselling in addition to hormonal treatment.

Antidepressant medication is the most common form of treatment for depression in primary care and there is extensive evidence to support their use in the general population (Clinical Evidence, 2000). There have, however, been no RCTs of antidepressants alone in the treatment of PND and clinicians must rely on general recommendations for depression occurring at other times. In the absence of any evidence specifically for women with PND is it ethical to continue to prescribe antidepressants to postnatal women particularly in light of the range of unpleasant side-effects such as sedation, weight gain and dry mouth. These drugs are known to pass through breast milk and the long term effects on infants is unknown.

The evidence suggests that cognitive and interpersonal therapy are as effective as antidepressants in treating depression, that there is no evidence of a difference between these treatments in terms of long term benefits and that combining drug and psychological treatments may be more effective in severe, but not mild to moderate depression (Clinical Evidence, 2000). But the specific effects for women with PND are not known. Further research is required on whether antidepressants should be prescribed only when counselling interventions have proved ineffective. RCTs of the treatment of depression have found that continuing antidepressant drug treatment for 4-6 months after recovery reduces the risk of relapse, but we do not know if this continuation treatment is the spontaneously, electronic fetal monitoring was used periodically, and she had four vaginal examinations. Pethidine, followed a few hours later by an epidural, were used for intrapartum pain relief. After an 18-hour labour, her baby was delivered by vacuum extraction for failure to progress. She felt frightened for both herself and her baby. "I was left reeling after the birth. All I could think was "Oh my God". She had to wait one and a half hours for perineal stitching. In the postnatal ward she woke after four hours sleep and felt disoriented, her baby was crying, she didn't know where was she or what had happened, she couldn't feel that her bladder was full and wet the bed. Since the birth she has been scared about long-term emotional and physical suffering. She feels overwhelmed, depressed, anxious, stressed and out of control. She feels that her life will be shortened; "I feel like I'm burning out aging ten years in one year". Although she feels drained she can't rest because of hypervigilance regarding the baby. She reported difficulty concentrating, angry outbursts, difficulty recalling some key aspects of the birth, and feeling detached or emotionally numb. Although she reported good social support antenatally, she feels that she can't speak with her family, including her husband, mother and mother-in-law about her emotional distress because "they just want me to be better." She says, "They don't want to know that I need more time to heal. I think they would breakdown if I told them how distressed I am."

Gabrielle

Gabrielle was having her second baby. Her first baby was delivered by emergency caesarean section for failure to progress and she "didn't want to go through that again". She was booked for an elective caesarean section, which was performed at 38 and a half weeks gestation. At birth the baby had breathing difficulties and required resuscitation. Gabrielle said "I panicked because the baby doctor didn't know what she was doing, they called for a more experienced person to come from the nursery – that took ages and she couldn't get the tube down for his breathing – he almost died". Her baby was admitted to the special care nursery as he needed oxygen therapy, intravenous fluids, the anti-septic, and antibiotics. She said, "he was very sick." After discharge from hospital Gabrielle said she would wake up during the night "shaking, cold, and white – like in shock". She said she had wanted an elective caesarean section to avoid risking the fear and distress she experienced with her previous emergency caesarean section. She said "It was all meant to be under control".

At 6 weeks postpartum she explained that she had "difficulty caring for him [the baby], and that she was "slow to realize things like when he is crying for attention or when my older child is hitting the baby." By 3 months she summed this up by saying "I am less responsive to him, I have a bonding problem". She was experiencing other symptoms of PTSD such as intense recollections of the birth events, difficulty sleeping unrelated to the baby's needs, difficulty concentrating, feeling detached from others and irritability.

Stressful nature of events

There are a number of emerging themes from the case studies that may assist our understanding of birthing trauma and subsequent depression. These include the stressful nature of some childbirth events, early onset of trauma symptoms, avoiding contact with the baby, and the experience of depression. These issues will be discussed in relation to the larger data set and relevant literature.

While all four women experienced a range of obstetric interventions, two experienced a high level of intervention and the births
were marked by a sense of fear, loss, and pain at a physical and emotional level. All the women experienced a long and stressful labour involving painful obstetric procedures. Maggie experienced excruciating pain as her baby was extracted from her, and Gabrielle was fearful of a catastrophic outcome for her baby. In the larger sample 66% (n = 311) of women nominated stressful events that were categorised into five areas. The most common stressful event was the experience of labour pain (20.8%). Fear for the wellbeing of the baby or herself was reported by 17.2% of participants. Pain as a result of obstetric intervention was distressing for approximately 13% of women, while a perceived lack of care by staff during labour was distressing for 5.6% of women. Around 5% of women nominated a stressful event that fell outside the major categories.

Childbirth practices in Australia remain predominantly hospital centered and highly medicalised. The adverse psychological consequences for birthing women demand changes to maternity care. In particular, there needs to be a continued review to reduce the use of invasive obstetric procedures during labour and birth. It is also necessary to inform women of the incidence of obstetric interventions and associated risks so they can participate more effectively in the decision-making process. Frank discussions about emergency procedures during the antenatal period may enable women to be better prepared.

**Early versus late onset of trauma symptoms**

Some women reported that their distress was evident immediately after delivery and was not addressed by staff. Within 24 hours of delivery, each woman reported trauma symptoms that continued to be frequent and persistent for three to four months postpartum. All of these women acted to leave hospital (the site of the trauma) as soon as possible. For other women however, that felt emotionally numb after delivery and it may have been some time later that they became distress or were able to talk about issues. Whilst the results of the larger study found that many of the women who reported trauma symptoms recovered in the first month following delivery, around half of the women continued to experience a range of symptoms characterized by re-experiencing, avoidance and physiological arousal for some time. Other studies have reported the persistence of trauma symptoms from one to eight years postpartum (Ballard et al 1996; Fones, 1996).

In the larger sample, the majority of traumatized women experienced intrusive thoughts about the birth (82.2%) and felt emotionally upset when thinking about the birth (57.9%). Many women (67.7%) tried to avoid thoughts and feelings associated with the birth, while some women (29.9%) avoided places or activities associated with the trauma. It was common for women to state that they would not go back to the hospital. Furthermore, some women (31.1%) reported experiencing intense physical reactions when reminded of the trauma in the postpartum period. For example, one woman described 'breaking into a cold sweat when driving near the hospital'.

Re-experiencing (or intrusive) symptoms may affect a woman’s ability to adapt to the changing demands of motherhood and her relationship with others. Continuing intrusive symptoms can lead to impaired decision-making and sense of well-being (Horowitz, 1986). Continuing avoidance symptoms can be a defense strategy to contain the distress generated by the recurring memories of the trauma (McFarlane 1992). Women may avoid the site (and possibly the perpetrator) of the

**Social support**

Social support has long been recognised as playing an important role in the prevention and treatment of depression. Indeed Mauthner (1995) revealed the isolation and alienation felt by mothers with PND and the benefit of talking with other women who share a personal understanding of their experiences. In Canada, Fleming et al (1992) aimed to examine mood, attitudes, and behaviour of new mothers. On day 2 postpartum women were asked to complete the Current experience scale (CES; Fleming et al 1988), the EPDS and an affective checklist and return the questionnaires by mail. They recruited 76 depressed women and an equal number of non-depressed women into the study. The women were offered a support program (n=44), a group-by-mail intervention (n =15) or no intervention (n =83). The social support group, facilitated by two psychologists, met weekly for 8 weeks. The group was relatively unstructured and aimed to provide opportunities for women to talk about issues, share problems and discuss solutions. The group-by-mail aimed to determine whether the group effects were due to social interaction or the information imparted during the group. Scripts written by a playwright, based on the verbatim transcripts of the group were sent to the women in the mail group on a weekly basis. The measures were repeated at 6 weeks, 5 months, and 12 months. They were observed feeding their infants at 5 months and the infants were assessed at 5 and 12 months using developmental scales. Women in both groups improved over time, there was no change in attitudes, but mothers in the support group gave greater attention to their child whereas mothers in the mail group decreased attention. Mothers in the support group also reported that their baby cried less at 5 months than 6 weeks whereas the reverse was true for mothers in the other groups. The mothers in the support group were significantly older than women in the other groups. The co-variate of age, the combination of depressed and non-depressed women in all conditions at the same time, and the unequal numbers in the groups may have affected the results.

Misri et al (2000) in a small Canadian study offered women a support group of women alone (n = 13) or a group with partners (n = 16). Both groups received 7 sessions and partners attended four sessions. Women completed the EPDS, KSQ, DAS and Parental Bonding Instrument (PBI; Parker et al 1979). Partners completed the GHQ and DAS. Women in the support group had decreased symptoms of depression. There was no difference on the DAS for partners in either group. Both partners in the intervention group perceived their relationship more positively and ratings on the GHQ improved while that of the control group deteriorated.

An eight week support program by Morgan et al (1997) offered women (n = 34) the opportunity to explore the myths of motherhood, receive information on postnatal depression and used cognitive behaviourally exercises to challenge negative beliefs. Partners attended one session and women were provided with the opportunity to explain their difficulties, for partners to add their perceptions, couples to discuss issues together and for group discussion. There was a significant improvement in women’s scores for depression, GHQ and couple satisfaction. These results need to be considered with caution given the small sample and lack of control group. Satisfaction with the group deteriorated. An eight week support program by Morgan et al (1997) offered women (n=34) the opportunity to explore the myths of motherhood, receive information on postnatal depression and used cognitive behaviourial exercises to challenge negative beliefs. Partners attended one session and women were provided with the opportunity to explain their difficulties, for partners to add their perceptions, couples to discuss issues together and for group discussion. There was a significant improvement in women’s scores for depression, GHQ and couple satisfaction. These results need to be considered with caution given the small sample and lack of control group. Satisfaction with the group deteriorated.
in the literature. The idea that one simply “allows the woman to talk” belies the depth of skill involved in facilitating such disclosure. The woman may have very good reasons not to talk: mistrust, lack of rapport, previous experience of being patronized/silenced/disregarded by health professionals may all adversely inhibit the therapeutic process. Perhaps if the counsellor was highly skilled, and has good rapport and trust with the woman, a single session may well be effective. Midwives providing counselling may also be effective if the system provided them space to develop a meaningful relationship with women throughout the pregnancy, birth and recovery, and gave them training to understand and develop these “listening” skills.

In light of the high proportion of participants in the current study (Creedy et al 2002) who found debriefing helpful, it is possible that even though debriefing does not reduce postpartum morbidity using ‘caseness’ criteria of research tools, it does go some way to reducing emotional distress. Other studies support the idea that it is important for the new mother to be able to talk with a supportive listener (Reynolds, 1997). Experts seem to promote postpartum debriefing or “listening” (Berg & Dahlberg, 1998) and see construction of the birth story as a useful “listening” and see construction of the birth story as a useful approach. However, the idea that one simply “allows the woman to talk” belies the depth of skill involved in facilitating such disclosure.

Combined pharmacological and psychological approaches

There is limited research on different combinations of pharmacological and psychological therapies for PND. Appleby et al (1997) carried out a randomised controlled trial, double blind in relation to drug treatment of fluoxetine and CREST (Childcare advice, Reassurance, Enjoyment, Support from others, Targets) which is a program based on cognitive behavioural counselling and designed for health workers who are not specialists in mental health. Women with either major (n=51) or minor (n=36) depression six to eight weeks after birth were randomised to receive either fluoxetine or placebo, plus either one session or six sessions of counselling. Duration of treatment was three months and women were assessed at 1, 2, and 12 weeks with the EPDS and Revised Clinical Interview Schedule. There was significant improvement in all four groups but improvement was greater in women receiving six sessions as opposed to one, and women received fluoxetine showed greater improvement than those receiving a placebo did.

The differences were apparent at one week and it may have been that simply being told that they would receive six sessions of counselling as opposed to one was enough to make these women feel better. Of the 188 eligible women 101 refused to participate mainly because they did not wish to take medication and a further nine women dropped out of the study due to adverse drug effects.

A parent-baby day unit in the UK offers a specialised, multidisciplinary, specialised psychiatric day service to parents with emotional and psychological disorders associated with pregnancy and within 12 months of childbirth. In one evaluation study, Boath et al (1999) compared the outcomes of 30 women from the service with women who received routine primary care. Women who attended the unit fared better on all outcome measures for depression, anxiety, quality of family life and dyadic adjustment. At 3 months 11 women in the program were no longer depressed compared to four women in RPC. At six months 21 women were no longer depressed compared to seven women in the RPC group.

In the trial, women who received the combination of drug and counselling reported a greater improvement than those receiving placebo alone. The combination of drug and counselling was also more effective than either drug or counselling alone. The results of the trial suggest that the combination of drug and counselling is more effective than either drug or counselling alone for the treatment of depression in the postpartum period.

Avoidance versus anxiety about the baby

A disturbing finding was that some women were emotionally unable to hold their baby after delivery or became overly anxious about the baby. Ballard et al. reported that three of the four mothers in their study felt the need to avoid contact with their infants. Continuing problems in the mother/infant relationship developed in two of the four mothers mainly because the infant reminded them of unpleasant birth experiences. Furthermore, previous work has found that women suffering postpartum depression have difficulty becoming attached to their new infants, and the women's ability to adapt to motherhood in general.

Postnatal depression

The postpartum depression experienced by some women could be viewed as a normal consequence of trauma. According to Brockington about half of newly delivered mothers suffer a transient phase of emotional lability or sadness for a few days. Postpartum depression in a variety of guises may develop during the next few weeks and include obsessional neurosis, anxiety and occasionally anorexia. Most presenting symptoms include dysphoria, tearfulness, irritability, sleep disturbances, and fatigue. Cognitive symptoms may include impaired concentration and memory deficits. The mother may also indicate unrealistic concern and worry about the baby. Thus postpartum distress may take many forms.

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

Treatment of PND:

A review of the evidence

Conclusions drawn from a review of the available research literature will be presented in the following section. Studies that clearly defined their main purpose as the treatment of postnatal depression were reviewed.

Pharmacological approaches.

Until recently studies on the pharmacological treatment of depression had only been addressed in case studies. Roy et al (1993) highlighted their success in...
treating 4 women with Fluoxetine. A trial by Stowe et al (1995) with 26 women were treated with sertraline. At 8 week follow-up, of the 21 women who completed the trial, 14 had recovered fully. All women suffered some form of side effects that were transient or resolved by a reduction in dose, but two women withdrew because of severe side effects. Compliance was assessed by pill count, with women asked to bring the bottle to each appointment. It may be possible that women disposed of the medication in order to appear compliant.

The results, and those of other studies (e.g., Cerruti et al 1993) are questionable however, due to the small sample size, lack of randomization, lack of placebo control group, stringent inclusion and exclusion criteria, timing of the assessment, not using standardised measures and homogeneous nature of the sample. The paucity of evidence for the treatment of PND using antidepressant medication, combined with the fact that most psychotropic drugs are excreted into breastmilk mean that many women with PND prefer not to take them (Whitton et al 1996). There is little evidence of adverse effects on the infant, long term effects on the infant are not known (Austin & Mitchell 1998). Furthermore, Appleby et al (1997) highlight the need to avoid over-sedation of mothers with young children.

**Psychological approaches to treatment**

There have been a number of studies of psychological strategies for treating PND in the community (Holden et al 1989; Trout, 1991; Gerrard et al, 1993; Gruen 1993; Wickberg & Hwang, 1996; Seeley etal, 1996; Cooper & Murray 1997). Some earlier studies have been reviewed by Elliott (1989).

In a landmark three month study, Holden et al (1989) screened newly delivered women for PND using the Edinburgh Postnatal Depression Scale (Cox et al 1989). A psychiatrist then interviewed those who scored above the threshold of 12/13 at home. Of the 60 eligible women 55 agreed to participate and were randomly allocated to receive 8 weekly, 1 hour counselling visits in their own homes by nurses who had received very brief training on non-directive counselling, and who had been told that the women were depressed. The remaining women received standard care from the same group of health visitors, who had not been told that these women also had a diagnosis of depression.

At the end of the study 69% of women were no longer depressed compared with 38% of women in the control group. Although it was stressed to the health visitors that the counselling should only be offered to the women referred by the researchers, it is unlikely that the health visitors would not counsel some of the women in the other group if they felt they were depressed.

Wickberg & Hwang (1996) screened over 1800 Swedish women who were not taking anti-depressant medication for PND 2-3 months postpartum. Of the 57 women found to have major depression, 41 were randomly allocated to receive either 6 weekly, 1 hour sessions by trained nurses or standard care with no scheduled check-ups. Twelve out of 15 women in the counselling group were no longer depressed, whereas four out of 16 women in the control group were no longer depressed. Women in the counselling intervention were highly satisfied with maternal and child health services compared with other women, however, all women were able to attend the clinic as frequently as required. It is feasible that differences in outcome may be attributable to attendance rates.

In an 18 month follow-up randomised controlled trial (RCT) in the UK, Cooper and Murray (1997) randomly assigned 194 women with major depression to receive one of three interventions: non-directive counselling, cognitive behavioural therapy, dynamic psychotherapy or routine primary care. Therapy took place in 10 weekly, 1 hour sessions in the women's own homes. All of the therapies proved equally effective in speeding up recovery from PND. Maternal reports of relationship problems with the infant were significantly reduced by treatment. Early recover from PND was associated with a reduced rate of insecure infant attachment at 18 months. Difficulties with the research includes the lack of description of the randomization procedure making it impossible to assess allocation concealment. Furthermore, the routine primary care group had four assessments from the research team and it has been noted that scores on depression measures may decrease following repeated measurement (O’Hara et al, 1984). This indicates a possible therapeutic effect of ongoing interviewing.

Interpersonal psychotherapy (IPT) is a manualised time limited psychotherapy that has been shown to be effective in the treatment of major depression. Stuart and O’Hara (1995) adapted IPT for PND by adding issues such as relationship to the baby, the partner and transition to work. At three months, nine out of the 12 women demonstrated a positive response. In a larger study O’Hara (2000) evaluated a 12 week program of IPT. A total of 120 women with major depression were randomly assigned into the ITP group or a wait list control (WLC). Women were assessed before therapy and at 4, 6, 8 and 12 weeks on measures of depression, social adjustment, and postpartum adjustment. The diagnosis of depression was made by an independent clinician using a modified version of the SCID (First et al, 1997) and an amended version of the Hamilton Rating Scale for Depression (Hamilton, 1967). There was a significant difference in clinical outcome in terms of depression, social and postpartum adjustment for women who received IPT. It is important to note that though participants were mainly caucasian, had partners and were well educated, 20% of women withdraw from the ITP program compared to 15% in the WLC group.

Meager and Milgrom (1996) carried out a pilot study in Australia comparing ten women treated using cognitive-behavioural group program that included educational and social support with ten wait-list controls. They found a significant improvement on three measures of depression but no differences on adjustment, self-esteem and parenting stress. This work was only a pilot evaluation and so further work using a larger sample would be required. Furthermore, most of the women had sought assistance elsewhere prior to attending the group and 8 of the twenty women were on anti-depressant medication for at least 8 weeks prior to the program. These factors make it difficult to discern if the group alone was effective or if the changes in women's emotional well-being were a result of other interventions and motivations.

**Debriefing**

Debriefing describes a structured intervention that is intended to act as primary prevention to mitigate, or at least inhibit acute stress reactions not specifically related to birthing. There appears to be insufficient evidence at present to draw conclusions about the effectiveness of debriefing following childbirth, primarily because it is unclear if a standardised debriefing intervention was used in many of the studies. The extent of training or therapeutic skills of the person providing the counselling is also not often explained.