



THEME

Mother and baby



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Perinatal depression

Assessment and management

BACKGROUND

Depression and anxiety often begin in pregnancy, particularly third trimester, therefore 'perinatal' rather than postnatal depression might be a better term to describe this disorder.

OBJECTIVE

This article outlines an approach to assessment and management of perinatal depression.

DISCUSSION

Psychological difficulties are common after childbirth and have potentially serious consequences. Treatment needs to consider the complex interplay of biology and psychology, and both mother and infant need consideration. Early, assertive identification and sensitive management, mindful of risks and benefits to both mother and infant, is the best current approach to improving outcomes.

Despite the image portrayed by smiling mothers and babies on glossy covered magazines that fill newsagent stands, having a baby in Australia in 2006 is not guaranteed to be 'natural' or without difficulties. Our society is structured such that there is a weight of expectation on motherhood and a dearth of social networks or recognition to support it. The result is that nearly 30% of women have significant adjustment difficulties and some 15–20% minor or major perinatal depression.^{1,2}

Depression or just motherhood?

While genetic vulnerability appears to play an important role, particularly for the more serious and rare (1 in 600) postpartum psychosis (a probable variant of bipolar disorder),³ there are clear associations with psychosocial risk factors; in particular lack of support, marital difficulties or no partner, and factors such as excessive stresses,^{2,4,5} personality and coping style,⁶ and an abusive background.⁷

The current model used to try and best understand perinatal depression is one that combines our ever increasing understanding of the biological underpinning of depression and anxiety and their effects on the fetus and infant (*Figure 1*).

Maternal anxiety in pregnancy has been shown to result in higher cortisol in infants; maintained in one study at 10 year follow up.⁸ It was the maternal state in pregnancy rather than the mood disorder postpartum that best correlated with infant outcomes – the behavioural and emotional difficulties noted in infants of mothers with depression and until now attributed to parenting styles. These findings, although they need to be replicated, complement other work and animal models, and suggest that infants are primed in utero (and mediated perhaps by genes) to be more reactive to stress.^{9,10} From an evolutionary perspective, if the world in which the mother is bringing the child into were dangerous, it would be potentially advantageous for the child to react more rapidly. Unfortunately, in anxiety and mood disorder, the precipitant is psychological rather than a real threat. If the mother and her environment continues to be hostile (via depression and lack of support), the child's excess biological responses may become permanent, although how much flexibility in this and to what age is unknown.

From a clinicians' point of view three things need to be taken from this research and model:

- depression and anxiety often begin in pregnancy, particularly third trimester, and so 'perinatal' rather than postnatal depression might be a better term

- treatment needs to consider the complex interplay of biology and psychology, and
- both mother and infant need consideration.

Clinical features

Perinatal mood disorders (where anxiety is often concomitant) are best considered on a spectrum where, depending on the number or type of risk factors, influences where you fall. A family history of bipolar disorder (suicide and alcoholism also need consideration) biases the risk to the severe end. Postpartum psychosis is rare, usually begins in the first week or month, and should be considered wherever behaviour has been 'strange' or out of character (features are similar to bipolar disorder).

Major and minor depression and adjustment disorder have similar symptoms but are differentiated by:

- the number of symptoms
- severity of symptoms, and
- how long and for how much of the time they have been present.

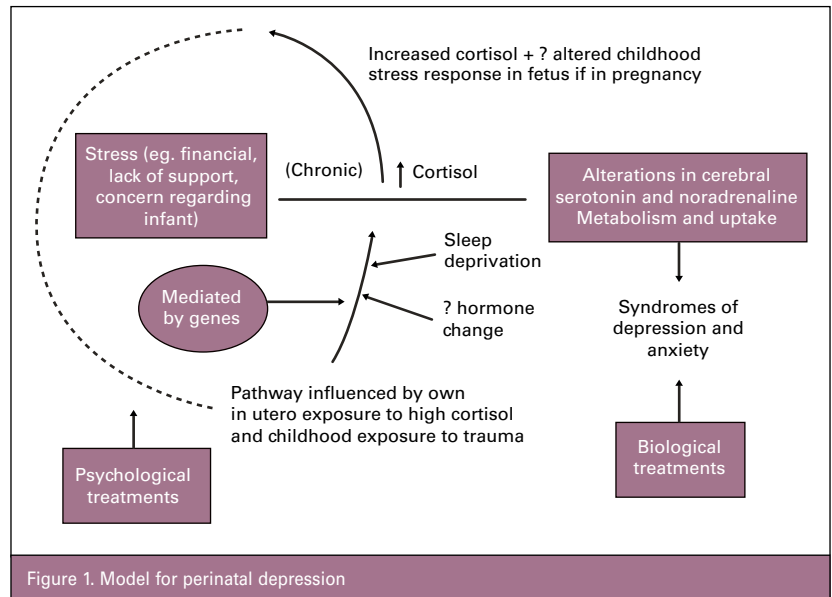
A guide for assessment is shown in *Table 1*.

Short and long term risks

Maternal suicide is fortunately rare, and the presence of the infant may help prevent suicide in some women with depression.¹¹ Nevertheless it is the equal leading cause of maternal death in Australia (with haemorrhage),¹² is a particular risk in the first month of life, and is closely linked to the risk of postpartum psychosis and relapse of bipolar disorder. These women in most circumstances need to be treated in hospital.

Infanticide is also rare, but is linked to maternal and paternal mental illness and drug abuse.¹³ Neonaticide – often associated with denial of pregnancy – is less predictable, preventable or understood, but is more transitory and related to life circumstance.¹⁴

The more common and yet less recognised risks are those of maternal illness – beginning in utero – on the infant. These children are at higher risk of emotional, cognitive and behavioural difficulties, with boys being more behaviourally disturbed (eg. ADHD) and girls being withdrawn and anxious.^{15,16} While it is unclear how effective mother-infant therapy is, early identification and assertive treatment of the mother's illness with this relationship in mind may at the very least increase the infant's resilience. It is important to avoid placing the infant as the cause of the problem but to identify the mother's mood and anxiety as an issue in their own right, albeit potentially seen as precipitated by the infant's sleep difficulties or colic.



Management

The key to management is early identification, as prevention to date has been largely unsuccessful.¹⁷ Early identification, such as routine screening, has been shown to be acceptable and feasible.¹⁸ From the general practitioner's point of view, this means asking every perinatal woman on every visit how she feels – taking note of those women with multiple risk factors. Women do not readily admit to being depressed – not only does this mean the stigma of depression but also, in their eyes, failing as a mother. They are much more likely, if they do present, to do so with infant related problems such as reflux, colic, and sleeping and settling problems. A nonjudgmental, caring, supportive approach is essential.

Psychosocial issues need addressing in all women: providing a space to vent the anxiety, anger and loss that comes with motherhood and for many, the birth experience itself, and breastfeeding. Cognitive behavioural therapy, and interpersonal and group therapy have all been shown to be effective.¹⁹

Practical suggestions are important, eg. the woman giving herself permission to take time out (what other job is 24 hours a day 7 days a week?) Education is also important – the model in *Figure 1* can be helpful, particularly explaining how what you are suggesting works (antidepressants at the right, stress reductions/supports at the left of the model).

Inpatient care is indicated if there are issues of risk to mother or infant (if the latter is significant, then the mother needs separate admission). Other indications for inpatient care include psychosis, parenting assessments, significant depression and/or mother-infant issues where support or care is unavailable in the community. There

are a number of mother-baby units throughout Australia, although unfortunately not in all capital cities, and these facilities are less accessible to rural and remote women.

Medication issues

Women do not readily accept the biological model – most do not recognise they are depressed and are relatively unaccepting of antidepressants.²⁰ Where depression is severe or unresponsive to psychosocial interventions, antidepressants do need consideration and have been shown to be effective in postnatal depression, although the anxiety may take longer to respond, given the stressor – the infant – is a constant.²¹ If the woman has previously been on medication, this may guide your choice of drug – otherwise take into account symptoms and circumstances. A woman may be having sleeping problems, but a sedating antidepressant such as mirtazapine is not the best choice if she has to wake to the infant at night.

Breastfeeding and pregnancy also need careful consideration. Recently there have been a number of concerning reports about the potential negative effects of antidepressants, particularly selective serotonin reuptake inhibitors (SSRIs) on the fetus. These include cardiac malformations such as ventricular septal defect with paroxetine (double 'community' rate from 1 to 2%);²² significant prematurity with fluoxetine;²³ small gestational size and pulmonary hypertension;²⁴ as well as withdrawal effects such as irritability, increased startle reflex and altered sleep.²⁵ Unfortunately these studies are naturalistic, small, and without controls of women with depression and anxiety. Maternal anxiety has been shown to have a number of significant associations, including maternal hypertension, so it is difficult to know what effect the anxiety has, and what the treatment has.

Providing the infant is well and full term (and the older the child the less likely the issue), breastfeeding appears less of an issue, with relatively small exposure except

Table 1. Assessment of adjustment disorder

	Minor depression	Major depression	Postpartum psychosis
Symptoms	Anxiety, particularly about the infant and mothering, overwhelmed, lowered mood but some fluctuation and 'good days'	Anxiety, particularly about the infant and mothering, overwhelmed, lowered mood, panic attacks, hopelessness and helplessness, life not worth living, lowered mood most of the time	Anxiety – vague and not necessarily directed, overwhelmed, labile, low or elevated mood, preoccupied, vague and distracted, psychotic symptoms (delusions and hallucinations)
Onset	First days to weeks postpartum	Third trimester to first weeks postpartum but may not present for months	First month; occasional 'weaning' psychosis
Level of impairment	Fluctuates, can be 'snapped' out of it, some good days and perspective	Can maintain good front for doctor and at mother's groups, but feeling low most of the time for most days	Can put on good front briefly for doctor but is almost always noticeable to those who know her well – ask their partner; can deteriorate very rapidly – a psychiatric emergency
Time course	Usually improves over first few months, when infant is in routine, or with support	Can last months; years if another pregnancy is superimposed	Varies, the more severe take up to 2 years before returning to normal, even with treatment
Risk assessment	Any risks more related to personality and any concomitant substance abuse	Risk of suicide but baby often protective. Neglect of infant and/or poor parenting secondary to the depression or the underlying risk factors (eg. childhood abuse and subsequent personality issues)	May be significant to self and infant due to poor judgment, command hallucinations or delusional beliefs – needs hospitalisation

with venlafaxine.²⁶ Nevertheless all infants need close observation of weight gain and milestones and possible effects cannot be excluded.

Medication needs to be approached cautiously with both the woman and her partner being fully informed (it is important to fully document this in the patient's records) and a balance needs to be found between the risk to mother and risk to infant. Depression and anxiety come at a cost to both in the dyad – so might the treatment. The question is, which is the worst? The answer will depend on severity and time course of illness, health and age of the infant, and the mother's wishes based on the best current evidence you are able to provide.

Conclusion

Psychological difficulties are common after childbirth and have potentially serious consequences. Early, assertive identification and sensitive management, and being mindful of the risks and benefits to both mother and infant, is the best current approach to improving outcomes.

Conflict of interest: none declared.

References

- Dennerstein L, Lehert P, Riphagen F. Postpartum depression: risk factors. *J Psychosom Obstet Gynaecol* 1989;(Suppl)10:53–65.
- O'Hara M, Swain A. Rates and risks of postpartum depression: a meta-analysis. *Int Rev Psychiatry* 1996;8:37–54.
- Steiner M. Perinatal mood disorders: Position Paper. *Psychopharmacol Bull* 1998;34:301–6.
- Robertson E, Grace S, Wallington T, Stewart D. Antenatal risk factors for postpartum depression: a synthesis of recent literature. *Gen Hosp Psychiatry* 2004;26:289–95.
- Beck C. A meta-analysis of predictors of postpartum depression. *Nurs Res* 1996;45:297–303.
- Boyce P, Parker G, Barnett B, Connery M, Smith F. Personality as a vulnerability factor to depression. *Br J Psychiatry* 1991;159:106–14.
- Buist A. Childhood abuse, postpartum depression and parenting difficulties: a literature review of associations. *Aust N Z J Psychiatry* 1998;32:370–8.
- O'Connor T, Ben-Shlomo Y, Heron J, Golding J, Adam D, Glover V. Prenatal anxiety predicts individual differences in cortisol in pre-adolescent children. *Biol Psychiatry* 2005;58:211–7.
- Glover V, O'Connor TG. Effects of antenatal stress and anxiety. *Br J Psychiatry* 2002;180:389–91.
- Wadhwa P. Psychoneuroendocrine processes in human pregnancy influencing fetal development and health. *Psychoneuroendocrinol* 2005;30:724–43.
- Appleby L. Suicide during pregnancy and in the first postnatal year. *BMJ* 1991;302:137–40.
- King JF, Slaytor EK, Sullivan EA. Maternal deaths in Australia 1997–1999. *Med J Aust* 2004;181:413–4.
- Victorian Child Death Review Committee Findings. Group Analysis Report Summary: partnerships in caring for children. 2006; Ch 6.
- Spinelli M. Neonaticide: a systematic investigation of 17 cases. In: Infanticide. Psychosocial and legal perspectives on mothers who kill. Spinelli M, editor. American Psychiatry Press 2003;105–18.
- Murray L, Cooper P. Postpartum depression and child development. *Psychol Med* 1997;27:253–60.
- Murray L, Cooper P. Effects of postnatal depression on infant development. *Arch Dis Child* 1997;77:99–101.
- Lumley J, Austin M. What interventions may reduce postpartum depression? *Curr Opin Obstet Gynecol* 2001;13:605–11.
- Buist AE, Condon J, Brooks J, et al. Acceptability of routine screening for postnatal depression. *J Affect Disord* 2006;93:233–7.
- Dennis CL. Treatment of postpartum depression: Part 2. A clinical review of nonbiological interventions. *J Clin Psych* 2004;9:1252–64.
- Buist A, Bilszta J, Barnett B, et al. Recognition and management of perinatal depression in general practice: a survey of GPs and postnatal women. *Aust Fam Physician* 2005;34:787–90.
- Dennis C-L, Stewart D. Treatment of postpartum depression: Part 1. A critical review of biological interventions. *J Clin Psych* 2004;65:1242–51.
- Wogelius R, Norgaard M, Muft Munk E, et al. Maternal use of selective serotonin reuptake inhibitors and risk of adverse pregnancy outcomes. *Pharmacoepidemiol Drug Saf* 2005;14:S143.
- Chambers C, Johnson K, Dick L, Felix R, Lyons-Jones K. Birth outcomes in pregnant women taking fluoxetine. *N Engl J Med* 1996;335:1010–5.
- Chambers CD, Hernandez-Diaz S, Van Marter LJ, et al. Selective serotonin reuptake inhibitors and risk of persistent pulmonary hypertension of the newborn. *N Engl J Med* 2006;354:579–87.
- Sanz EJ, De-las-Cuevas C, Bate A, Edwards R. Selective serotonin reuptake inhibitors in pregnant women and neonatal withdrawal syndrome: a database analysis. *Lancet* 2005;365:482–7.
- Ilett KF, Hackett LP, Dusci LJ, et al. Distribution and excretion of venlafaxine and O-desmethylvenlafaxine in human milk. *Br J Clin Pharmacol* 1998;45:459–62.