

Postpartum Depression: Part 1

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The pregnancy and postpartum period for most women is usually a time of well-being, despite dramatic physiological and psychological changes. For the vulnerable woman, however, this time can precipitate or exacerbate a psychiatric disorder. For most women, the onset of mood and anxiety disorders frequently occurs during child-bearing years. In one study, there was an 18-fold increase in psychiatric admissions during the first three months after delivery.¹

This article will review the course of depression during pregnancy and postpartum and highlight risk factors that could trigger or exacerbate depression during this vulnerable period. The impact of depression on the mother, the fetus and the newborn will be discussed. Part 2 of the article, scheduled to appear in the May 2002 edition of *The Canadian Journal of CME*, will focus on treatment.

Depression During Pregnancy

It is difficult to distinguish the pathological symptoms seen in depression from normal somatic changes, such as fatigue, appetite changes and sleep difficulties associated with pregnancy. Although it has been thought that pregnancy provided some protection against depression, recent research challenges this belief. In one controlled study, 182



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gravid female and 179 non-gravid females were evaluated for minor and major depression, using research diagnostic criteria.² In this study, rates of depression were equal in both groups of patients.

Although up to 70% of women may have depressive symptoms during pregnancy, 10% to 15% actually fulfill the criteria for a major depressive episode.³ Factors that heighten the risk for depression during pregnancy include prior history of depression, family history of depression, younger age, limited social support, living alone, having several children, marital conflict and ambivalence about pregnancy.⁴⁻⁷

Other risk factors include women with a history of depression who discontinue taking antidepressant medications at conception or early in pregnancy. Up to 75% of women may relapse into a depressive episode in the first trimester after an antidepressant is discontinued.⁸ Decisions regarding medication discontinuation during pregnancy should be made carefully, taking into account the previous history, duration and intensity of the episode of depression. Due to the recurrent nature of depression and the likelihood of relapse during pregnancy, one needs to carefully weigh the risks of not treating depression *versus* the potential harmful effects medication may have on the developing fetus. Although there is limited data on the impact of maternal depression and fetal development, depression during pregnancy has been associated with low birth weight ($\leq 2,500$ g), pre-term delivery (< 37 weeks) and neonatal distress.⁹⁻¹¹ Depression during pregnancy often can lead to inadequate antenatal care, poor nutrition and

lack of appropriate weight gain — factors that often are associated with poor birth outcomes. The depressed pregnant woman is also at risk of alcohol, nicotine and/or drug abuse, all of which are associated with altered birth outcomes. Although not systematically studied, depression during pregnancy may alter the pre-bonding experience between the mother and fetus.

Postpartum Mood Disorders

Postpartum mood disorders are typically classified into three categories: postpartum blues, (“maternity blues”), postpartum depression (PPD) and postpartum psychosis.

Postpartum blues. Postpartum blues affects 50% to 80% of new mothers. Symptoms typically include irritability, anxiety, crying, being oversensitive and overwhelmed, as well as sleep and appetite changes. These symptoms usually begin on the third or fourth day postpartum, peak on days five to seven and remit by the tenth day. Symptoms, although distressing at the time, usually are benign and transitory in the majority of women. If symptoms continue for more than two weeks, PPD must be considered. Furthermore, women with a history of a previous affective illness who experience “the blues” are at high risk for developing a major depressive episode. Overall, one in five women with postpartum blues progress into major depression.

Risk factors for postpartum blues. Although the “blues” are experienced by most mothers, underlying risk factors may influence the intensity of symptoms. Postpartum blues are more severe when mothers are single, of low socioeconomic status and experience personal stressors, such as marital discord, illness, or death of a family member.^{12,13}

PPD. Depression that occurs within four weeks after delivery as defined in the *Diagnostic and Statistical Manual (DSM) IV* is called PPD (Table 1).¹⁴ Because of the varying time frames used to

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Case Study

CL is a 27-year-old computer programmer who presents to your office with a four-week history of irritable anxious mood, broken sleep, fatigue, crying episodes, poor concentration, headaches and diminished appetite. She has been healthy throughout her pregnancy, but has found it increasingly difficult to cope with her emotional changes and is presenting to your office requesting time off from work. There is no significant past medical history. She is unable to identify any acute stressors. There is no misuse of alcohol, medication or illicit drugs.

She denies any suicidal ideas or symptoms of mania or psychosis. She does express feelings of guilt, and fears that she is jeopardizing the health of her baby. She is in a very stable relationship and is looking forward to the birth of her first child. CL has a strong family history of depression. Both her mother and sister have been treated with antidepressant therapy. CL herself has had one previous episode of depression in her early 20s, which was treated successfully with antidepressants and supportive therapy.

Questions:

What is the diagnosis?

What are the risk factors for this patient developing postpartum depression?

delineate the postpartum period, specific data on the rates of PPD is somewhat inconsistent. The best data indicates that 12% to 15% of women will experience PPD.¹⁵ The majority of women who experience depression postpartum have their onset within the first six to 12 weeks after delivery. The symptoms of PPD are almost indistinguishable from depression in the non-puerperal female. These symptoms include depressed mood, anhedonia, low energy, guilty ruminations (especially about their inadequacy as a parent), with increasing anxiety and obsessive tendencies, as well as suicidal ideation. Depressed mothers have problems bonding with their infants and may express indifference or anger towards the baby.

Risk factors. There are several factors that could predispose women to PPD, the most significant of which is a similar previous episode. Between 50% and 62% of women with a previous episode will develop a subsequent depression postnatally.¹⁶ Other risk factors include depressive symptoms during pregnancy, and familial or personal history of depression. Almost 25% of women with a previous history

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Table 1

DSM-IV Criteria for Major Depressive Episode

At least five of the following symptoms are present during the same period. Either depressed mood or loss of interest or pleasure must be present. Symptoms are present most of the day, nearly daily, for at least two weeks.

- Depressed mood (sometimes irritability in children and adolescents) most of the day, nearly every day.
- Markedly diminished interest or pleasure in all or almost all activities most of the day, nearly every day.
- Significant weight loss/gain or decrease or increase in appetite.
- Insomnia/hyperinsomnia.
- Psychomotor agitation/retardation.
- Fatigue or loss of energy.
- Feelings of worthlessness or excessive inappropriate guilt.
- Impaired concentration or indecisiveness.
- Recurrent thoughts of death, suicidal ideation with or without a specific plan, or suicide attempt.

Adapted from DSM-IV *Mood Disorders. Diagnostic & Statistical Manual of Mental Disorders*, 4th ed. Washington, DC. American Psychiatric Association, 1994, pp. 317-91.

of depression will experience a recurrence of depression during the postpartum period.

In addition to genetic and biological risk factors, various psychosocial stressors can play a role in triggering or worsening the depressed state. Ambivalency about pregnancy, relationship discord, stressful life events and health problems in the infant may precipitate a depressive episode postnatally. Depression and high levels of expressed emotion in the woman's partner also has been shown to pose as a risk of causing PPD.^{17,18}

Recently, 132 women with postpartum depressive symptoms and 264 women without depressive symptoms were compared.¹⁹ Risk factors for postpartum depressive symptoms in the study were sick leave during pregnancy and a high number of visits for antenatal care. Complications during pregnancy, such as hyperemesis, premature contrac-

tions and psychiatric disorders were more common in the depressed group.¹⁹ Interestingly, parity, social demographic data or the mode of delivery did not pose as risk factors in the development of PPD.

Impact of PPD on the child. Depression has negative consequences for the mother, the family and the newborn baby. Depressed mothers are not able to attend to the emotional and physical needs of their child, which may impact the infant's behavior and development. Depressed women may have difficulty bonding with their child and often develop negative attitudes and become less responsive to their social needs and signals.²⁰ Maternal depression also has long-lasting effects

on the children, even after the mother recovers. Children of mothers who suffer depression postnatally were likely to have negative impressions of their mothers, were more temperamental and suf-

Table 2

Edinburgh Postnatal Depression Scale (EPDS)

Screening tool for PPD; Score of 12 or greater suggestive of PPD;
Sensitivity: 0.86; Specificity: 0.78

In the past seven days:

1. I have been able to laugh and see		6. Things have been piling up	
• As much as I always could	0	• Yes, most of the time I haven't been	3
• Not quite as much now	1	able to cope at all	
• Definitely not so much now	2	• Yes, sometimes I haven't been coping	2
• Not at all	3	as well as usual	
2. I have looked forward with enjoyment		• No, most of the time I have coped	1
to things		quite well	
• As much as I ever did	0	• No, I have been coping as well as ever	0
• Rather less than I used to	1		
• Definitely less than I used to	2	7. I have been so unhappy that I have had	
• Hardly at all	3	difficulty sleeping	
3. I have blamed myself unnecessarily		• Yes, most of the time	3
when things went wrong		• Yes, sometimes	2
• Yes, most of the time	3	• Not very often	1
• Yes, some of the time	2	• No, not at all	0
• Not very often	1	8. I have felt sad or miserable	
• No, never	0	• Yes, most of the time	3
4. I have been anxious or worried for no		• Yes, some of the time	2
good reason		• Not very often	1
• No, not at all	0	• No, not at all	0
• Hardly ever	1	9. I have been so unhappy that I have been crying	
• Yes, sometimes	2	• Yes, most of the time	3
• Yes, very often	3	• Yes, quite often	2
5. I have felt scared or panicky for no		• Only occasionally	1
good reason		• No, never	0
• Yes, quite a lot	3	10. Thoughts of harming myself has	
• Yes, sometimes	2	occurred to me	
• No, not much	1	• Yes, quite often	3
• No, not at all	0	• Sometimes	2
		• Hardly ever	1
		• Never	0

Adapted from Holden JM: Post natal depression: Its nature, effects and identification using the Edinburgh Post Natal Depression Scale. Birth 1991; 18:21.

ferred more cognitive deficits and difficulties in mathematical and abstract reasoning.²¹⁻²⁴ In the more severe cases of PPD, physical neglect and abuse of the infant, suicide or infanticide, may be a tragic consequence of a treatable, but often under-diagnosed, medical condition.

Etiology of PPD. The etiology of PPD remains unclear, although in vulnerable patients, several biological factors are suggested. Hormonal and endocrine changes appear to play a role. A precipitous drop in estrogen postnatally may contribute to depressive symptoms. Thyroid irregularities also

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may contribute to postpartum mood disturbance. Hypothyroidism is especially high within the first six months after delivery. Thyroiditis is also much higher (9%), as compared to the general population (3% to 4%) within the first six months post natally.²⁵ However, while depression has been associated with thyroid abnormalities and dysregulation of the hypothalamic pituitary adrenal axis (HPA), there is no strong evidence of this in the majority of women with PPD. Nonetheless, it should be common practice to rule out thyroid disease as a potential causative factor in cases of PPD. Studies of other potential biological factors including gonadal hormones, prolactin, oxytocin, cortisol and beta endorphins have failed to reveal any specific abnormalities.¹⁶ Data on the extent to which breastfeeding or weaning may affect mood is inclusive.

Postpartum psychosis. Although occurring in approximately one to two per 1,000 women (0.1 to 0.2%), postpartum psychosis represents the most serious of the postpartum mood disorders.²⁶ Postpartum psychosis usually occurs within two weeks of parturition. In some women, there could be a dramatic, rapid onset within 48 to 72 hours post delivery. Postpartum psychosis is typically characterized by fluctuating labile mood, disorganized behaviour with confusion, sleep disturbances, delusions and auditory hallucinations.²⁷ Patients usually require hospitalization with prompt and aggressive treatment, due to the substantial risk of self-harm, neglect and infanticide. Postpartum psychosis often may be the initial presentation in women who subsequently develop bipolar disorder, schizophrenia, or schizoaffective disorder.

Risk factors for postpartum psychosis. In women with a positive family history for mood disorders or schizophrenia, child birth seems to increase the risk of developing postpartum psychosis. Women who experience postpartum psychosis have a 50% to 75% chance of experiencing a similar episode in subsequent pregnancies. Other risk factors include women who experience perinatal death, delivery by Cesarean section, or those who lack social support.²⁶

Diagnosis

Physicians should routinely screen women for affective symptoms during pregnancy, especially in the postpartum period. This article has already reviewed the various risk factors associated with depression during pregnancy and postpartum. In practical terms, women who meet DSM-IV criteria for depression should be diagnosed as suffering from major depression irrespective of somatic or psychological symptoms, which may be attributed to changes during pregnancy or the postpartum period. Patients and family members should be educated about the signs and symptoms of depression in order to facilitate early recognition, assessment and treatment.

Screening questionnaires such as the Hamilton Depression Rating Scale (HDRS) during pregnancy, and the Edinburgh Post Natal Depression Scale (EPDS) may help the busy physician detect depression.²⁷ The EPDS is a 10-item, self-rated scale that evaluates depressive symptoms over the previous seven days. A score of 12 or higher is suggestive of PPD. It has a sensitivity of 0.86 and a specificity of 0.78 (Table 2).

Discussion of Case

CL presents with symptoms in keeping with major depression. Although depressive symptoms can occur at any time during pregnancy, it is not uncommon to see symptoms arise, especially during the last trimester, and is often associated with physiological and psychological changes. CL's risk for postpartum depression is quite high. Risk factors for developing PPD include depressive symptoms during pregnancy, previous history of depression and a strong family history of mood disorder. [CME](#)

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