Review Postnatal affective disorders. Part 1: an introduction

Author Margaret Oates

Key content:
• Emotional and behavioural changes affect 50–80% of new mothers between days 3 and 5 of the postnatal period.
• Ten percent of all recently-delivered women develop a depressive illness.
• The incidence of puerperal psychosis is 2 per 1000 births.
• Women with puerperal psychosis face a 50% risk of serious mental illness at other times in their lives.

Learning objectives:
• To learn about the emotional changes following childbirth.
• To be aware of the risk factors, clinical features and prognosis of postnatal affective disorders.
• To be able to prescribe the appropriate care for women with puerperal psychosis and postnatal depression.

Ethical issues:
• Should all women be screened for postnatal mood disorders?

Keywords postnatal affective disorders / postnatal depression / psychiatric mother and baby unit / puerperal psychosis / puerperium
Introduction

Postnatal depression is not the only psychiatric disorder that can arise following childbirth and the problems of using the term for all types of psychiatric disorder have been highlighted in the last two Confidential Enquiries into Maternal Deaths.\(^3\)\(^4\) It has led to underestimation of the seriousness of some psychiatric disorders, to misdiagnosis and to inappropriate treatment. All types of psychiatric disorder can complicate the postpartum period, arising either de novo or as a recurrence or relapse of a pre-existing condition. It is postpartum affective disorders, however, such as puerperal psychosis and depressive illness, that warrant special attention. This is because of their distinctive clinical presentation and course, their established epidemiology and, for the more serious illnesses, their increased incidence.\(^3\)\(^4\)

The first 90 days of the postpartum period are associated with an elevated risk of psychosis and severe depressive illness. Women with a previous episode of serious affective (mood) disorder, particularly bipolar disorder, are at an increased risk of recurrence, even if they have been well during pregnancy and for many years. The most severe affective disorder, puerperal psychosis, is rare but has been described throughout history and across cultures. Many more women suffer from a less severe, nonpsychotic depressive illness, which is often called postnatal depression. This is not a homogeneous condition but one that varies in subtype and severity and responds to different types of treatment.

At least 10% of recently-delivered women will suffer from a new episode of affective disorder (Table 1).

Normal emotional changes in the puerperium

After childbirth, emotional and behavioural changes occur, commonly known as ‘the blues’. While essentially normal, they can still come as an unpleasant surprise. Some health professionals may be unfamiliar with these changes and be unsympathetic or misattribute them to an illness.

Following a normal delivery, most women are happy, perhaps even ecstatic or ‘high’. They may not sleep and may feel excited and have excessive numbers of visitors. This has been described as ‘the pinks’.\(^2\) Between days 3 and 5, their emotional and behavioural state changes. These ‘blues’ affect 50–80% of all new mothers. This condition is self-limiting and lasts for approximately 48 hours but it can recur periodically over the next 6–8 weeks, particularly when the mother is very tired. Active treatment other than support, reassurance and explanation is unnecessary. Day 5 is the most common day of onset of puerperal psychosis: care, therefore, needs to be taken that the blues are resolving as the days go by.

The first few weeks following birth are a time of great emotional change, particularly for first-time mothers. Transient states of tearfulness, anxiety and feelings of incompetence are common. Those involved in the care of recently-delivered women face the dual challenge, on one hand, of recognising the early symptoms of serious illness and, on the other hand, normalising ordinary distress and validating the common experiences of motherhood.

Puerperal psychosis

Puerperal psychosis is, by definition, a psychotic illness that arises in a previously well woman within a defined period after childbirth. The term covers those women who have a lifetime first-onset psychotic illness following childbirth. It also covers women who have previously had a psychotic illness but have been well in the years preceding their pregnancy. Overall, the incidence is 2 per 1000 births and this has remained relatively constant since first described in the 1850s.\(^3\) There have, however, been some suggestions that the incidence of postpartum-onset psychosis (true puerperal psychosis) is less common than in historical times and that the incidence of postpartum recurrence of a previous illness, particularly of bipolar illness, has increased.\(^5\)

Despite its rarity, women are at substantially increased risk of becoming psychotic in the year following childbirth, particularly in the first 3 months (Figure 1).

Aetiology

The distinctive clinical features—onset within days of delivery, polymorphous psychotic symptoms and the tendency to recurrence after subsequent childbirth—have led some in the past to believe that puerperal psychosis was a separate clinical and diagnostic entity. The majority of these women, however, exhibit bipolar features after a few days and respond to the treatments of bipolar illness. A proportion will go on to have bipolar illness at other times in their lives. In addition, individuals with a family history of bipolar illness are at increased risk of experiencing a psychotic episode in the immediate puerperal period. For these reasons, it is reasonable to assume that the majority of cases reflect the interaction of a bipolar predisposition with the physiological and psychological effects of childbirth. This aetiological theory is supported by the finding that 50% of women who suffer from

<table>
<thead>
<tr>
<th>Type of disorder</th>
<th>Incidence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild depressive/anxiety disorder</td>
<td>15.0–20.0</td>
</tr>
<tr>
<td>Major depression</td>
<td>10.0</td>
</tr>
<tr>
<td>Severe depressive illness</td>
<td>3.0–6.0</td>
</tr>
<tr>
<td>Referral to psychiatric services</td>
<td>2.0</td>
</tr>
<tr>
<td>Admission to psychiatric unit</td>
<td>0.4</td>
</tr>
<tr>
<td>Puerperal psychosis</td>
<td>0.2</td>
</tr>
</tbody>
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Puerperal psychosis will have a further episode of bipolar illness during their lifetime. A plausible explanation is that women who develop postpartum psychoses have an estrogen-related dopamine receptor sensitivity. Variations in the serotonin transporter gene have also been associated with a subset of women with bipolar disorder who additionally developed puerperal psychosis.

**Risk factors**

Puerperal psychosis is not as strongly associated with psychosocial risk factors as nonpsychotic conditions. See Box 1 for risk factors with a strong positive predictive value.

The risk with a previous history of either puerperal psychosis or bipolar illness is 1:2, while the risk with a family history of bipolar illness has been estimated at 1:3. This evidence underlines the importance of routine questioning in the early pregnancy assessment.

**Clinical features**

Puerperal psychosis is an acute-onset condition that develops over a few days in a previously well woman. Fifty percent present within the first week after birth, 75% within the first 6 weeks and 90% within 90 days. During the first few days of the illness, women are agitated, perplexed, bewildered and frightened. Characteristically, the symptoms are those of acute undifferentiated psychosis. Mood is disturbed and labile, varying from profound depression to elation or irritability. Delusional ideas include misidentification, paranoid delusions and suspicion about the motives of family and professionals. Depressive delusions of guilt and incompetence and, at other times, grandiose delusions, are usually present in the early days. Motility disturbances, confusion and disinhibition are also very common. Puerperal psychosis typically causes rapid deterioration. The woman does not sleep, eat or drink and she neglects her self-care. Later, the illness becomes more clearly recognisable as a variant of bipolar illness or, where there is persistence of non-mood congruent delusions and hallucinations, schizoaffective disorder. In one-third of all cases, the mood is predominantly elated (manic or schizomanic), while in the remaining two-thirds the mood is either mixed or predominantly depressive. Attention and concentration are seriously impaired, as is infant care. While overt hostility to the infant is uncommon, the woman will require supervision and assistance in meeting the baby’s needs. Terror and delusional ideas lead to a very real risk of suicide and, occasionally, infanticide. The relative risk for suicide is at least 70.

**Differential diagnosis**

Puerperal psychosis can be mistaken for the blues. Both occur in the first postpartum week. Both can initially present as emotional lability, insomnia, distress and agitation. Both can be very variable, with lucid intervals when the woman appears to be symptom-free. However, the blues, which is essentially a normal state of dysphoria, quickly responds to reassurance and support and resolves over a period of 24–48 hours. Puerperal psychosis will deteriorate over the same period; the woman will be preoccupied with distortions of reality and new symptoms will quickly emerge.

Puerperal psychosis can also be difficult to distinguish from puerperal confusional state. Puerperal psychoses usually have their onset after the third postpartum day whilst postpartum confusional states have an earlier onset in relation to childbirth. The fluctuating perplexity and agitation of the early days of puerperal psychosis can easily be mistaken for a fluctuating level of consciousness. In both confusional states and puerperal psychosis, the woman can be disinhibited and incontinent both of urine and faeces. All women suspected of suffering from puerperal psychosis should, therefore, be carefully examined physically and their temperature, blood pressure, pulse and respiration rate monitored. The importance of admitting women with puerperal psychosis to a specialist mother and baby unit, where their physical and mental health needs can be met, is evident from the difficulties there are sometimes in making this differential diagnosis.

Early onset severe panic disorder can also be mistaken for puerperal psychosis. In this condition the woman may be terrified that she is going mad; she will usually describe clearly other anxiety phenomena such as derealisation, depersonalisation and physical symptoms of anxiety. Unlike puerperal psychosis, severe anxiety disorders usually respond to reassurance, a calm professional manner and the presence of family members. However, the differential diagnosis often requires the assistance of a specialist perinatal psychiatrist.

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**Box 1**

**Risk factors for puerperal psychosis with a strong positive predictive value**

- Family history of bipolar or postpartum-onset illness
- History of serious affective disorder (bipolar illness and severe unipolar depression)
- History of puerperal psychosis

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Management
The majority of women with puerperal psychosis will need to be admitted to a specialist psychiatric mother and baby unit. This is the only setting in which the physical needs of the mother and infant can be met and where additional expertise is to be found. Details of pharmacological management will be given in Part 2 of this article.

Prognosis
Puerperal psychosis has a good short-term prognosis. With appropriate treatment, the manic state should improve within 2 weeks and the depressive psychosis by 6–8 weeks. In keeping with the probable bipolar nature of the condition, women with manic or mixed affective psychosis can become depressed later. The majority of women can expect to recover fully and regain their premorbid level of functioning, although they may need to continue their medication for some time.

There is a high rate of recurrence following subsequent births (at least 50%), which may be higher in those with the very early onset manic conditions and with a family history of puerperal psychosis. The illness is likely to present in the same way and at the same time as before.

It has long been known that 50% of women who have an episode of puerperal psychosis go on to have a further episode of serious mental illness at another time in their life. While for some women this is associated only with subsequent births, for others it arises independently of pregnancy. At the time of the first episode, it is difficult to predict into which category the woman will fall. Women with a previous history of non-postpartum serious illness or a family history of bipolar disorder are, however, most likely to suffer subsequently from non-postpartum, as well as postpartum, episodes. The older the woman is when she suffers from her lifetime first postpartum episode, the less likely it is that she will go on to have nonpartum illnesses. It is also thought that those illnesses that arise within a few days of birth with acute polymorphous psychotic symptoms are most likely only to be related to childbirth.

Postnatal depressive illness
Ten percent of all recently-delivered women develop a depressive illness. The studies from which this figure is derived are mostly community studies using the Edinburgh Postnatal Depression Scale, either as a diagnostic tool or for screening prior to the use of other research tools. Studies using a cut-off point of 14 usually give an incidence of 10%, while those using lower scores give a higher incidence. A score on a screening instrument is not the same as a clinical diagnosis. Nonetheless, a score of 14 is said to correlate with a clinical diagnosis of major depression and the lower scores with that of major and minor depression. The incidence of women who would meet the diagnostic criteria for mild, moderate or severe depressive illness is lower: probably 3–5%. Depression following childbirth has the same range of severity and subtypes as non-postnatal depression. Depending on the symptoms, duration and severity, they can be graded as mild–moderate/severe and subtypes can have prominent anxiety and obsessional phenomena.

Postnatal depressive illness, of all types and severities, is relatively common and represents a considerable burden of disability and distress in the recently-delivered community. Contrary to popular belief, with the exception of the most severe forms, it is no more common than in non-childbearing women of the same age. This does not, however, detract from its importance. Depressive illness of any severity, occurring at a time when happiness and fulfilment is expected, when major psychological and social adjustments are being made, and in combination with caring for an infant, creates particular difficulties.

Aetiology
As at other times, the aetiology of depressive illness has a complex pathophysiology and is likely to result from the interplay of genetic, neuroendocrine and psychosocial factors. In general, the more severe the depressive illness, the more likely it is that biological factors are in the ascendency.

A previous history of depressive illness, either following previous childbirth or at other times, predisposes to postnatal depression, as does a family history of severe unipolar depressive illness. This indicates that the aetiology of postnatal depression has at least some overlap with that of other depressive illnesses. This is further underlined by the significant proportion of women who suffer from postnatal depressive illness who go on to experience depressive illness at other times in their lives. See Box 2 for factors that predispose to the development of postnatal depressive illness.

Stillbirth, infant death and, perhaps, traumatic experiences of childbirth, predispose women to developing depressive illness after the next birth. In vitro fertilisation can also increase the risk. There has been some suggestion that adverse experiences of birth can increase the risk of postnatal depression but there is no clear evidence that the mode or place of delivery influences the incidence.

Box 2
Factors that predispose to the development of postnatal depressive illness

- Adverse experiences in early childhood
- Chronic adversity and recent life events
- Lack of social support
- Ambivalence towards the pregnancy
- High levels of anxiety during pregnancy
The tendency for new mothers to engage in negative self-evaluation, critically comparing themselves with the ideal of motherhood, and their perception of how others are coping, can increase their vulnerability to depressive illness, particularly if there is inadequate or unsympathetic support from loved ones and health professionals.

It was previously thought that postnatal depression was caused by progesterone deficiency; progesterone was frequently used to prevent or treat postnatal depression. There is no evidence that the progesterone levels of women who develop postnatal depressive illness are different from those of other women, nor that its use prevents or treats the illness. Indeed, there is some evidence that progesterone can be depressogenic. Its use in treating postnatal depression, therefore, cannot be recommended. There is, however, evidence that the timing of the blues is related to both the absolute and relative levels of progesterone following delivery. There is other evidence that estrogen has antidepressant effects and that it increases the number and sensitivity of serotonin receptors in the brain. Transdermal estrogen has been shown to be effective in the treatment of postnatal depressive illnesses; however, because of problems with its use and the lack of studies that replicate this finding, its use is not recommended.

Depressive illness is also a recognised symptom of hypothyroidism. Nonpsychotic postnatal depressive illness can be associated with temporary (often subclinical) hypothyroidism, which occurs in some women who develop postpartum thyroiditis in the postpartum year.

Some factors maintain the illness and can delay recovery. These include inadequate or inappropriate treatment, particularly subtherapeutic doses of antidepressants, or failure to continue with antidepressants for 6 months. Chronic adversity, lack of social support and significant life events can also be maintaining factors. The most common, however, are continuing difficulties (real or perceived) with the infant. Feeding and sleeping difficulties feature prominently. These are frequently attributed by the mother herself and sometimes by health professionals to her own mental state. A vicious circle quickly ensues, the exhausted mother blaming herself and becoming more tense and anxious, which in turn affects the infant. She vigilantly focuses on all her perceived inadequacies and compares herself unfavourably with others, which can lead her to avoid company and become even more socially isolated.

**Breastfeeding**

There is no evidence that breastfeeding increases the risk of developing significant depressive illness, nor that its cessation improves depressive illness. Continuing breastfeeding may protect the infant from the effects of maternal depression and improve self-esteem.

**Severe postnatal depressive illness: clinical features**

Severe postnatal depressive illness has an early onset in the first few weeks following birth but, unlike puerperal psychosis, this tends to be gradual and does not clearly manifest until 4–6 weeks postpartum or later.

The core symptoms are the same as depressive illness at other times. These include the so-called ‘biological syndrome’, now referred to as the ‘somatic subtype’, of early morning wakening, diurnal variation of mood, slowing of mental functioning, impaired concentration and overvalued ideas of incompetence and guilt. These are often accompanied by loss of appetite and weight, loss of spontaneity and enjoyment (anhedonia) and difficulty in coping with the tasks of everyday life. The context of new motherhood adds ‘pathoplastic’ features; the overvalued ideas frequently centre upon the baby. The mother feels that she is incompetent and worries about her own and the infant’s health. Frequently, there are high levels of anxiety, distressing intrusive thoughts and fears of harming the baby. Panic attacks are relatively common and can present as a psychiatric crisis. Not only do these women fear for their safety as mothers, they are often concerned for their own sanity.

The distorted cognitions of severe depressive illness, particularly the feelings of guilt and incompetence and the isolation and alienation resulting from social withdrawal, can lead to suicidal ideation. Women with severe postnatal mental illness are probably at increased risk of suicide and, rarely, infanticide.

**Management**

This condition needs to be speedily identified and treated, preferably by a specialist perinatal mental health team. The value of early contact with professionals who recognise and validate the symptoms and distress, and who can reattribute the overvalued ideas of the mother and instil hope for the future, cannot be underestimated. The treatment is the same as the treatment of non-postnatal depressive illness. The use of antidepressants, together with good psychological care, should result in an improvement of symptoms within 2 weeks and resolution between 6–8 weeks. For further details on management, see Part 2 of this article.

**Prognosis**

With treatment, women should recover fully. Without treatment, spontaneous resolution can
take many months and up to one-third of women are still unwell when their child is 1 year old.

Women who have had a severe unipolar depressive illness face a 1:2–1:3 risk of recurrence following the birth of subsequent children. They are also at an elevated risk of suffering from a depressive illness at other times in their lives. The long-term prognosis appears, however, to be better than for the first episode in non-childbearing women, both in terms of the frequency of further episodes and in overall functioning.14

Mild/moderate postnatal depressive illness: clinical features

The clinical features of this illness, often referred to as postnatal depression, are much the same as for non-postnatal depressive illness. They tend to develop gradually and do not manifest until 3 months or later after childbirth, at a time when other women are successfully adjusting to motherhood. They lack the core somatic subtype of the severe depressive illness. The condition is variable, with good and bad days. The women are often very anxious, with concerns about their own abilities as mothers and for the behaviour and wellbeing of the infant. They feel better in company and worse on their own and they avoid spending time alone in the home with their infant. At the more severe end of the spectrum, they can suffer from panic attacks and intrusive, unpleasant thoughts. They can experience variable interruption of their sleep and episodic sadness and despair. While overt hostility and aggression towards infants is uncommon, women with postnatal depression often feel irritable and experience little pleasure in their infant. They are often fearful that they may harm them.

Management

Early detection and treatment are essential for both mother and infant. For milder cases, a combination of psychological and social support and active listening from a health visitor will suffice. For others, specific psychological treatments, such as cognitive behavioural and interpersonal psychotherapy, are as effective as antidepressants, if not more.15 Further details are given in Part 2 of this article.

Prognosis

With appropriate management, postnatal depression should improve within weeks and recovery should occur by the time the infant is 6 months old. If untreated, however, there can be prolonged morbidity. This has been demonstrated to have an adverse effect, particularly in the presence of continuing social adversity, not only on the mother–infant relationship but also on the later social emotional and cognitive development of the child.

Conclusion

Psychiatric disorders during pregnancy and after delivery are common; in some cases they are predictable and avoidable and in others they are serious or life threatening. Psychiatric disorders make a substantial contribution to maternal morbidity and mortality. They are treatable, but untreated can result in prolonged morbidity, with adverse outcomes for the infant and family.

All professionals involved in maternity care should have sufficient understanding of the normal emotional changes and common states of distress and adjustment at this time, as well as knowledge about perinatal psychiatric syndromes. This will enable them to care for all of their clients as well as identifying the minority who are ill and require extra care.

References


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