Postnatal depression

Depressive symptoms in the postnatal period represent a range of clinical conditions of varying severity from simple "baby blues" to postnatal depression (which may range from mild to severe), bipolar disorder and postpartum psychosis (see differential diagnosis, page 8). There may be some overlap between these disorders, so they should be viewed as existing along a continuum of severity, rather than distinct clinical entities.[4] Postnatal depression should not be used as a general term to cover the whole spectrum of disorders.

In deciding on appropriate management and when to refer, it is important to differentiate between the disorders and assess severity. For example, most cases of postnatal depression can be managed in primary care, but more severe cases warrant specialist referral or consultation. Immediate referral is required if bipolar disorder or psychosis is suspected.

Postnatal depression is common

Postnatal depression is the most common and serious disorder of the first year after childbirth. It affects approximately 15% of all women who give birth and is common in all age groups, ethnicities, cultures and socioeconomic classes.

Studies in New Zealand using the Edinburgh Postnatal Depression Scale (EPDS, Appendix 1) have reported rates of postnatal depression of 8–13%.[5] A meta-analysis of studies, mainly based in resource-rich (developed) countries, found the incidence of postnatal depression to be 12–13%.[2] Other studies have shown higher incidences in resource-poor (developing) countries,[2] but little is known about the rates of postnatal depression in different ethnicities, within multicultural societies or in immigrant populations.

Postnatal depression is a significant issue because of its impact on the health and well-being of mothers, partners, children and relationships.[5] The adverse influences of postnatal depression may lead to depression in the woman's partner, and cognitive, emotional and behavioural difficulties in the young child. Postnatal depression is also associated with a reduced likelihood of bonding between the mother and infant as well as impaired cognitive and emotional development of the infant, especially in areas of socioeconomic deprivation.

Suicide is a concern in women with mental health disorders in the postnatal period. In the developed world, suicide is now the main cause of maternal death in the first year after childbirth, mainly due to relapse of serious mental illness. However, the rate of suicide in new mothers is not as high as that in age-matched non-postpartum women.[2]

There are general misunderstandings about postnatal depression which may contribute to poor detection rates and sub-optimal treatment. Common misconceptions include: symptoms and effects are less severe than depression experienced at other times, it will resolve by itself and postnatal depression is entirely due to hormonal changes.[3]

All people involved in a mother's care need to be aware of the risk factors and early signs of postnatal depression as many women may not realise that they are becoming unwell. Early detection and collaborative management can significantly improve health outcomes for both the mother and infant. With appropriate management, the majority of mothers respond well to treatment.

Postnatal depression in Māori

There is little information about prevalence rates of postnatal depression in Māori. However, Māori women appear to be at higher risk of postnatal depression than European women in New Zealand. In a community cohort study of 206 Māori and European women, symptoms of postnatal depression were associated with being single, age less than 20 at birth of first child, poor partner relationship, history of psychiatric illness and being Māori.[6]

Postnatal depression in Pacific peoples

As part of the Pacific Island Families Study, 1376 Pacific Island mothers were interviewed (including use of the EPDS) when their babies were six weeks old. Of these mothers, 16% were assessed as "probably experiencing depression". The prevalence of depression varied from 7.6% in Samoans to 31% in Tongans.[5] The overall rate of postnatal depression in Pacific peoples is at the upper end of previously reported rates in the general population, but the discrepancy between symptoms of depression in Samoan and Tongan mothers remains unexplained, even after correction for confounding factors. Risk factors for postnatal depression in this group included a low rate of acculturation*, first birth, stress due to insufficient food, dissatisfaction with pregnancy, infant's sleep patterns and poor partner relationships.

Paternal depression

The available research in this area indicates that paternal depression is common in the postnatal period with an incidence of ~10 %.[7] Risk factors for fathers developing depression include:

- Previous history of severe depression
- Depression and/or anxiety during the antenatal period
- A partner who has developed depression in the postnatal period
- Limited education
- Other children in the family

Paternal depression also has implications for children. There is an association with adverse emotional and behavioural outcomes for infants, including increased conduct problems in boys followed-up for three-and-a-

* Acculturation is the process whereby the attitudes and/or behaviours of people from one culture are modified as a result of contact with a different culture. Acculturation implies a mutual influence in which elements of two cultures mingle and merge – the "blending" of cultures.

half years.[8] There are increased diagnoses of psychiatric disorders at age seven years, particularly oppositional/conduct disorders and social difficulties.

It is therefore, important to assess and treat fathers for postnatal depression. The EPDS (Appendix 1) has validity and reliability in men. It is also important that interventions within the community and mental health services involve fathers and address all infant-parent relationships.

Risk factors for postnatal depression[2, 11]

A number of risk factors associated with the development of postnatal depression have been identified, but there is debate over which of these factors are the most significant. Generally, the strongest predictive factors are depression or anxiety in the antenatal period, or a past history of depression, including a previous diagnosis of postnatal depression.

Other factors that appear to increase the risk of postnatal depression include poor social support, relationship stress or dissatisfaction and recent adverse life events such as bereavement.

Symptoms of postnatal depression

Women with postnatal depression present with similar symptoms as those with general depression, but with some variation. Tiredness is a particularly consistent feature of postnatal depression and symptoms of anxiety are often prominent.[13] Subtle changes in behaviour, often noticed by the partner or other family members, may be the first symptom of postnatal depression. Some of the traditional markers of depression, such as sleep disturbance, loss of libido and weight change, are often partially or completely hidden in postnatal depression. These symptoms may be perceived as a normal part of motherhood and can conceal the development of depressive illness.

Women often appear, or complain of feeling, overwhelmed by motherhood and the needs of the infant. They may also feel trapped, angry, fearful or panicky, and be unable to talk about how they feel.

The impact of untreated postnatal depression and child development

The nature of the bonding between the mother and infant influences childhood neurodevelopment. Maternal nurturing and attention during the first postnatal year appears to be critical for optimal infant brain development.

A case control study has shown an association between untreated postnatal depression and reduced IQ at age 11 years in boys. Increased behavioural problems, violent behaviour, attention deficit and increased special education needs were also observed.[9] Effects in girls were not as strong but there were trends away from the norm.

The degree of maternal attachment and emotional connection appear to influence infant development.[10] Reduced maternal presence, even if subtle, may compromise the infant's sense of safety and protection. The theory is that the infant becomes pre-occupied in searching for emotional security and attachment, and is less likely to focus on healthy developmental activities such as exploration, learning and play.

What causes postnatal depression?

Although there are risk factors associated with the development of postnatal depression there are no clear causes. There is no certain link with the hormonal changes around pregnancy and after delivery, and obstetric difficulties do not appear to increase risk. It can be difficult to separate out causes from effects, e.g. potential causes such as relationship difficulties can be equally justified as a consequence of the mother's illness. The biggest risk factor appears to be antenatal depression. A New Zealand based study found that women with high EPDS scores were six times more likely to have had depression during pregnancy than women with low scores.[12] Other studies have found that psychological distress during late pregnancy increases the risk of postnatal depression.

Symptoms of postnatal depression include:[2, 4]

- Depressed mood
- Irritability
- Loss of interest in normal activities
- Tiredness and fatigue
- Insomnia
- Loss of appetite
- Low libido
- Poor concentration
- Feelings of guilt about inability to look after the new infant

Tiredness is often the first symptom to be noticed and the last to resolve on remission. It is important to recognise other potential causes of postnatal fatigue such as anaemia, infection, postpartum thyroiditis, cardiomyopathy and exacerbation of a pre-existing illness such as fibromyalgia or chronic fatigue syndrome.

Differential diagnosis

It is important to differentiate between postnatal depression and other depressive disorders that can occur postpartum. Primarily these are "baby blues", puerperal psychosis, bipolar disorder and substance misuse.

"Baby blues"

Baby blues is a temporary condition, affecting about 70 – 80% of women, and because it is so common it is often considered a normal part of the emotional changes after delivery. Symptoms of baby blues include mood lability, tearfulness, mild symptoms of anxiety or depression, irritability, fatigue and insomnia. Symptoms usually peak at three to five days postpartum and should completely resolve by 10 – 14 days. Baby blues that are prolonged or severe present a risk factor for the development of postnatal depression. Women should be reviewed after the tenth postpartum day. If symptoms are not improving the early onset of postnatal depression should be considered.

Most women with baby blues do not require any specific treatment other than reassurance.

Puerperal psychosis

Puerperal psychosis occurs in approximately two in 1000 births and is characterised by a sudden onset (one to two weeks postpartum) of psychotic symptoms such as delusions and hallucinations. Mania, mixed mania/depression, abnormal behaviour or rapid speech may also be present. It is potentially life-threatening to both mother and infant and immediate referral to psychiatric care is indicated.

Bipolar disorder

The typical age of onset for bipolar disorder is late adolescence or early adulthood, which places women at risk of an episode during their reproductive years.

About 2 – 3% of women experience bipolar disorder which may begin during pregnancy or after delivery. Childbirth can trigger a severe bipolar episode, either as a first presentation or a relapse.[1] There is usually a family history of bipolar disorder, and in some cases a woman may have had previous episode of depression which was not recognised as bipolar disorder.

Key factors that can help to identify whether a previous episode of depression might have been bipolar disorder, include:[7]

- Onset before age 20 years
- Presence of psychomotor symptoms
- Severe symptoms and signs – significant feelings of worthlessness, guilt, hopelessness, marked sleep disturbance, poor self-care, including lack of appetite and weight loss, significant slowing of thought and movement
- Family history of bipolar disorder

N.B: there is some overlap between these symptoms and severe, unipolar depression in the postnatal period.

Substance use disorders

Substance use disorders, particularly alcohol or cannabis, are not uncommon during pregnancy. Early identification and management of these disorders is important to prevent or reduce the risk of long term adverse effects on the infant, such as foetal alcohol syndrome. It is now widely recognised that there is no safe level of alcohol intake in pregnancy. Multiple addictions are also common, in particular alcohol with tobacco and alcohol with cannabis. Alcohol and other substance misuse during the postnatal period may worsen depression and compromise the care of the infant.

Onset and course of postnatal depression

The signs and symptoms of postnatal depression usually appear in the first one to three months following delivery,[2, 4] but onset can occur at any time in the first year.[3] The early postpartum checks provide an opportunity for practitioners to screen and identify most cases of postnatal depression.

Most cases of postnatal depression resolve spontaneously within three to six months but it has been previously reported that approximately one in four affected women is still depressed at the infant's first birthday.[2] These figures should be interpreted in the context that they come from studies performed 15 – 20 years ago. Further studies on response rates and prognosis are required in order to more accurately reflect current practice.

Screening and assessment

In view of the potentially serious consequences of unrecognised mental health disorders in women in the antenatal or postnatal periods, targeted screening is recommended.[1] The maternity care "booking" visit and the six-week postnatal check provide opportunities for practitioners to ask the verbal two to three question screening tools for depression (see sidebar). Questions that screen for anxiety and substance abuse should also be considered.

Women with ideas of either suicide or harming their infant should be referred immediately for urgent psychiatric assessment and child protection measures may need to be put in place.

If the woman's response to any of the verbal screening questions arouses concern (or if other issues do), further clinical assessment is indicated. Assessment and monitoring tools can be used as an optional aid to assessment and monitoring response to treatment. These tools are not diagnostic and do not reduce the need for a complete clinical evaluation.

The Edinburgh Postnatal Depression Scale (EPDS)

The EPDS (Appendix 1) is a self-administered screening tool which can be used to give an indication of the likelihood of postnatal depression.[14] The score obtained can signal the need for further assessment. Although the EPDS was defined to screen for postnatal depression it can also be used in the antenatal period.

In a New Zealand screening programme of over 14,000 women attending a general practice child immunisation clinic, 12% of women exceeded the threshold on the EPDS (≥13) which is similar to reported population rates of postnatal depression.[13]

The scale should be completed by the mother, without discussing answers with others, unless she has language or reading difficulties. The mother is asked to mark the response that best represents how she has been feeling over the previous seven days. The maximum score is 30 and a score of 10 or greater suggests possible depression. Women with a score of above 13 are likely to have depressive illness of varying severity.

Particular attention should be paid to question ten (suicidal thoughts). Any indication of potential suicidal behaviour indicates the need for referral irrespective of the EPDS score. The EPDS has high sensitivity to detect major depressive illness and is useful in providing a baseline score for monitoring progress between visits. The scale is not as useful for identifying psychomotor retardation or tiredness, and as these are common features of postnatal depression, supplementary questions should be considered. If the EPDS score suggests depression, the PHQ-9 (Appendix 2) can be used to assess the severity of the illness.

The EPDS, PHQ-9 and other assessment tools are available in the *bestpractice* decision support module.

Treatment of postnatal depression

General principles:

Collaboration

There should be close collaboration and sharing of information between the midwife, GP and other practitioners involved in the woman's care. All relevant information should be available to the Lead Maternity Carer (with the woman's consent). It is important to foster mutual respect and trust between the woman and all practitioners and also to extend support to other family/whānau or children who may be involved.[1]

Active support and self-management

Active management and education are important components of any treatment and should be continued and reinforced during treatment monitoring and follow-up.

Active support and self-management involves identifying problems and stressors and either taking steps to resolve them or finding coping strategies. For example, this might involve encouraging the mother to seek help in looking after other children at stressful times and help with general household chores, providing time and space for leisure activities, or helping to arrange counselling if relationship problems or family problems are contributing to stress.

Self-management includes exercise, making time for pleasurable activities with family/whānau and friends, advice on sleep hygiene, improving diet and lifestyle and avoiding alcohol and recreational drugs. Computerised e-therapy (Appendix 3) is an important self-management

option for some women, and should be offered as part of initial treatment if appropriate. It can be continued as an adjunct to additional treatments.

Education and support

Education involves informing the woman and her family/whānau that postnatal depression is not a personal failure, but is a common illness that usually responds to treatment, especially in a supportive and understanding environment. Family understanding and support may reduce stress and the burden of motherhood and allow time out for relaxation and therapeutic activities. A supportive partner can be a key source of practical and emotional support and may be able to mediate between the mother and any family members who find it difficult to understand the nature of postnatal depression.

Postnatal depression support groups, other groups and services and web-based information resources may be useful.

Stepped care

Active support, self-management and education are important general treatment strategies and should always be offered in conjunction with other treatments such as psychological therapy and/or antidepressants.

The treatment of postnatal depression generally follows the same stepped care approach as general depression (See "Depression in Adults" BPJ Special Edition, Jun 2009). The PHQ-9 tool can be used to assess the severity of depressive symptoms but this is only an adjunct to clinical judgment. The PHQ-9 score can be useful in establishing a baseline, and for subsequent monitoring of treatment response.

Mild to moderate depression.

A brief psychological intervention, e.g. six to eight weeks of non-directive counselling, interpersonal therapy (IPT) or cognitive behavioural therapy (CBT), should be considered as a first line intervention in the management of a woman with mild to moderate depression, in addition to active support and self-management. Many women

Verbal screening tools

Verbal two to three question screening tools for common mental health disorders.

Screening questions for depression

- During the past month, have you been bothered by feeling down, depressed or hopeless?
- During the past month, have you been bothered by little interest or pleasure in doing things?

If **yes** to either question, ask Help question below

Screening question for anxiety

- During the past month have you been worrying a lot about everyday problems?

If **yes**, ask Help question below

Screening questions for alcohol and drug problems

- Have you used drugs or drunk more than you meant to in the last year?
- Have you felt that you wanted to cut down on your drinking or drug use in the past year?

If **yes** to either question, ask Help question below

The Help question

- Is this something that you would like help with?

If the responses to the screening questions indicate concern, a full clinical assessment is indicated and this may be assisted by the optional use of assessment and monitoring tools such as the Edinburgh Postnatal Depression Scale (EPDS – Appendix 1) and the PHQ-9 (Appendix 2)

are reluctant to take antidepressants while they are breastfeeding and may prefer non-pharmacological treatments if appropriate. If there is no response to initial treatment, a more structured psychological therapy. e.g. a longer course of CBT or IPT, could be considered, in consultation with maternal mental health services.

Moderate to severe depression

An antidepressant may be considered as first-line treatment for a woman with moderate to severe depression, after discussion of the likely benefits, risks of untreated depression, and possible risks of treatment. A woman with severe depression should be managed in consultation with maternal mental health services or other appropriate psychiatric services.

Monitoring

Monitoring of progress and response to interventions are particularly important as the care of the new infant may be compromised and the mother may be at increased risk of alcohol and other substance misuse. The risk of suicide or self-harm should be assessed regularly.[1]

Psychological Interventions

A variety of psychological therapies are used to treat depression in the antenatal and postnatal periods. If available they are considered a first line intervention for a woman with mild to moderate depression and longer course can be used as an adjunct to antidepressants in severe depression.

Cognitive Behaviour Therapy

"Working with a therapist to challenge negative thoughts and beliefs you have"

CBT is an active, structured intervention in which the woman and therapist work collaboratively to identify the effects of thoughts, beliefs and interpretations on current problem areas, and develop her skills to identify, monitor and counteract these issues. The woman learns a repertoire of appropriate coping skills.

Interpersonal Therapy

"Working with a therapist to learn ways to improve your relationships with other people "

IPT is a structured intervention that focuses on interpersonal and relationship issues. The mother works collaboratively with the therapist to identify the effects of key problem areas associated with interpersonal conflicts, role transitions, grief and loss, and social skills. Symptoms reduce when strategies are developed to cope with or resolve these problem areas.

Non-directive counselling is when the woman talks directly to a counsellor about her feelings and problems. This can be delivered at home ("listening visits").

Psychodynamic therapy is when the woman works with a therapist to examine her feelings about her infant and her own childhood.

Computerised e-therapy

This provides information and self help in various forms including interactive CBT or IPT. This can be used as part of initial treatment and continued to supplement other treatments (Appendix 3 includes a list of recommended resources).

Pharmacological interventions

Antidepressants are generally indicated in moderate to severe depression and when active management and psychological therapy have not provided sufficient response. Careful explanation of the benefits and risks of antidepressant treatment is very important, especially to counteract any potentially incorrect information that the woman may have been exposed to. For example, a woman could be at serious risk of illness relapse if she stops antidepressant treatment because of her concerns about infant exposure to the medicine from breastfeeding.

Indications for antidepressants in postnatal depression:[13]

- Moderate to severe depression with symptoms present for at least two weeks
- Significant anxiety or panic attacks
- Psychomotor change or significant biological symptoms
- Previous response to antidepressant medication

Choice of antidepressant

Choice of antidepressant is mainly determined by current or previous response. A serotonin re-uptake inhibitor (SSRI) is the usual first choice. Paroxetine, citalopram and fluoxetine are all considered to be compatible with breastfeeding.

There is no evidence to suggest that any particular medicine or class of antidepressant is more effective in this patient group. The choice of antidepressant is determined by previous response, and whether the woman is breastfeeding or wishes to (see below). If a woman has been treated, and responded well to an antidepressant during pregnancy, it is usually preferable to continue with the same agent in the postnatal period. A SSRI is now generally used as the first line antidepressant as they are better tolerated and safer in overdose than tricyclic antidepressants (TCAs).

Antidepressants for postnatal depression during breastfeeding

A complex relationship exists between postnatal depression and breastfeeding. Depression is less likely to develop in women who establish and maintain breastfeeding than in those who have difficulties with breastfeeding.[15] Women who develop postnatal depression are more likely to stop breastfeeding, perhaps due to concerns about infant medicine exposure. Other women may stop taking their antidepressant due to toxicity concerns, without realising the risks of their untreated illness.

Not surprisingly, there are no randomised controlled trials of antidepressant use during breastfeeding, and there is little evidence on the long-term consequences of infant exposure to antidepressants through breast milk. The safety of medicine exposure from breast milk is derived from case studies and observational investigations involving small numbers of women who are producing breast milk.

The relative safety of a medicine taken during breastfeeding is expressed in terms of the weight adjusted maternal dose (WAMD).[16] If the maternal dose of a medicine is 10 mg/kg, a "dose" of 1 mg/kg received via breast milk represents a WAMD of 10%. If the WAMD is low, the overall medicine exposure to the infant is also low. Arbitrarily, drugs with a WAMD of 10% or less are considered relatively safe for the infant, but the lower the better. Exceptions are drugs such as warfarin and cytotoxics which are inherently toxic and any exposure would be considered unsafe.

As well as having a low WAMD, a medicine with a short half-life is desirable as this reduces the risk of accumulation and allows significant removal of the drug from the maternal circulation between feeds.

The SSRIs and their metabolites pass into breast milk in small amounts, generally below 7% of the WAMD. Infant ingestion via milk is lowest for paroxetine (WAMD ≈ 2%)

citalopram (≈ 7%) and highest for fluoxetine (≈ 10%).[17] Fluoxetine, citalopram and paroxetine are all considered to be compatible with breastfeeding. If a woman has been successfully treated with fluoxetine or citalopram in pregnancy, and needs to continue treatment after delivery, it is not necessary to switch to paroxetine as differences in medicine exposure are relatively small. Sedation, poor feeding and behavioural changes have been rarely associated with exposure to SSRIs via breast milk. Although there is no proven link between the medicine exposure and these adverse effects, breastfed infants should be monitored, particularly if the mother is taking fluoxetine or higher doses of any SSRI.

The commonly used TCAs, amitriptyline and nortriptyline have a low WAMD and are considered safe to use in breastfeeding. However, SSRIs are generally preferred as they are generally better tolerated and have a lower toxicity in overdose.

Doxepin has been associated with some adverse effects in breastfed infants and is not recommended while breastfeeding. Studies have shown that venlafaxine is excreted into breast milk with a WAMD in the range of 2–9%.[17] This indicates that it is relatively safe in breastfeeding but experience is limited and it is not a first-line choice.

Hormonal therapy

There is no place for synthetic progestogens in the treatment of postnatal depression, and norethisterone is in fact associated with an increased risk of postnatal depression. Progesterone-only contraceptives should be used with caution in the postnatal period, particularly in women with a history of depression before or during pregnancy.[18]

The role of natural progesterone in the treatment of postnatal depression has yet to be evaluated in a randomised, controlled trial.

Some studies have shown modest benefits of oestrogen therapy at late stages of postnatal depression,[18] but it is not recommended as a treatment option in the New Zealand Guidelines.[1]

Monitoring treatment and follow-up

It is important to monitor response to treatment and adjust if response is inadequate. This will involve good communication between all practitioners involved in the woman's care. There are significant risks if untreated depressive illness in the postnatal period carries forward in to subsequent pregnancy. The next pregnancy should be planned and discussed with consideration of factors such as the control of the current illness, whether in remission or not, and the need for continued antidepressant treatment.

Contraceptive advice is important as low libido and breastfeeding can lead the mother in to thinking that conception is not possible. An unexpected pregnancy during this time can be extremely stressful and compromise the health of mother and infant.

Prevention of postnatal depression

Available data on the use of prophylactic medicines or psychological interventions do not support routine, non-targeted interventions to reduce postnatal depression.[2] However, intensive, professional postpartum support, provided on an individual basis to at-risk mothers, may be beneficial.[19] NICE guidelines (United Kingdom) recommends four to six sessions of CBT or IPT for pregnant women who have symptoms of depression and/or anxiety that do not meet diagnostic criteria, but have had a previous episode of depression or anxiety.[11]

The role of natural progesterone or oestrogen in prevention of recurrent postnatal depression has not been rigorously evaluated.

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