

A close-up photograph of a woman with long dark hair, wearing a white top, holding a newborn baby. The woman is looking down at the baby with a gentle expression. The baby is lying on its back, wrapped in a white cloth. The background is softly blurred, showing what appears to be a bed with white linens.

Women and Reproductive Mental Health

The objective of this article is to provide necessary background information to general practitioners for diagnosing and treating mental disorders associated with women and reproductive cycles.

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Premenstrual Dysphoric Disorder

History — Premenstrual syndrome (PMS) is comprised of up to 100 different symptoms women can experience routinely between menarche and menopause. It is estimated up to 75% of women experience one or more of these symptoms premenstrually, but as the symptoms do not interfere with daily functioning, PMS does not constitute a disorder. When premenstrual symptoms become severe and interfere with functioning, it is referred to as premenstrual dysphoric disorder (PMDD). It occurs in 3% to 9% of menstruating women. Symptoms begin during the ovulation phase of the menstrual cycle and continue until the first few days of menstruation.¹ According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), a diagnosis of PMDD requires a minimum of five symptoms — one of which must be among the following mood symptoms: sadness, tenseness, marked lability or irritability.²

Examination — Retrospective diagnosis of PMDD can be misleading and is not recommended. The most accurate method of symptom confirmation is to have the patient prospectively rate her symptoms daily for at least two consecutive symptomatic cycles. The most frequently used scales for

Women's Health Care

this purpose include the Premenstrual Record of Impact and Severity of Menstruation calendar (PRISM),³ the Calendar of Premenstrual Experiences (COPE),⁴ and the Daily Record of Severity of Problems (DRSP) form.⁵

When a patient presents with severe premenstrual symptoms, a structured interview that focuses on the DSM-IV-TR criteria for PMDD should be conducted. In addition, it is important to obtain a complete history of the patient in order to assess whether the patient has a prior history of mood disorders, particularly postpartum depression, a family history of mood disorders and/or gynecological symptoms.

Co-morbidity — Several studies have reported that women who experience PMDD are at a greater risk for developing a major depressive episode in their lifetime.⁶ Conversely, between 30% and 60% of women who are in remission after being treated for major depression will show worsening of symptoms in the premenstrual phase of their menstrual cycle.⁷ Although these two clinical entities are related, one can, and often does, occur without the other.

Management — The psychosocial implications of untreated PMDD are far-reaching. The partner of a woman who suffers from PMDD is frequently the target of her rage and impatience. It is not uncommon to note physical violence during these episodes. Another major implication is the danger of how angry outbursts may affect children, as uncontrolled emotions can give rise to verbal or physical abuse.

A balanced biopsychosocial approach to the treatment of PMDD is essential. This approach begins with simple interventions, such as dietary and lifestyle modifications. Women often experience increased carbohydrate and salt cravings and tend to drink excessive amounts of caffeine and alcohol to deal with symptoms of anxiety. Smoking is another means of combating anxiety symptoms, but it can also induce panic attacks in vulnerable patients. Incorporating exercise into the daily routine is also a key to an optimum outcome of therapy. Simple exercises, such as walking, running, swimming, aerobics and stretching should be emphasized. Other lifestyle



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changes include avoiding anticipated stressful situations and attending counselling or psychoeducational sessions.

Pharmacotherapy is indicated for those women with moderate to severe symptoms of PMDD who do not respond to dietary and lifestyle changes alone.

Perimenopause and Mood Changes

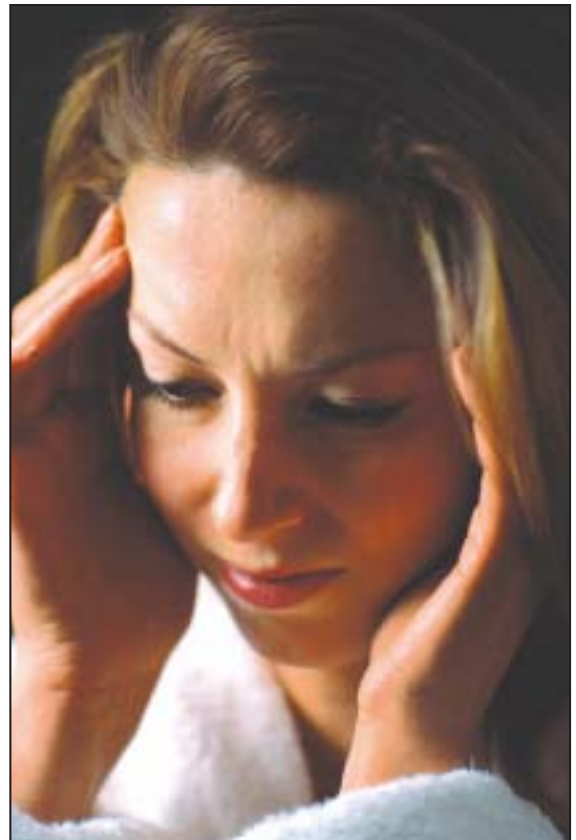
History — Menopause is defined as the cessation of menses due to the loss of ovarian function. The term “perimenopause” is used to describe the transitional time before the menses finally end. This transition can last anywhere from a few months up to five years. Just like premenstrual symptoms, perimenopause is a natural physiological occurrence and most women experience this phase without the need for any medical intervention.

Examination — While some women experience few or no symptoms during the perimenopause, others experience moderate to severe symptoms that result in frequent visits to the family physician or gynecologist. This has led to many tertiary centres across North America forming “menopause clinics” where perimenopausal women are evaluated for both emotional and physiological well-being.

Problematic physical symptoms most commonly reported by perimenopausal women include hot flashes, night sweats, insomnia and vaginal dryness.⁸ Problematic psychological symptoms include increased irritability, loss of memory, mood swings and cognitive changes.⁸ Variations or fluctuations of the menstrual cycle, with or without changes in the follicular stimulating hormone, are the hallmarks of perimenopause.

Recent prospective epidemiological studies suggest up to 10% of women experience mood changes associated with perimenopause. The diagnosis of clinical depression associated with perimenopause must meet the DSM-IV-TR criteria for major depression, the only difference being that it occurs in the context of endocrine changes.

In making a diagnosis of depression, it is critical to be sensitive to the psychosocial context in which these hormonal changes are occurring. In the North American culture, where the perimenopause transition is considered to be a negative experience, the accompanying stresses of excelling in the workplace, maintaining an attractive appearance, and decreasing sexuality can further complicate the picture. In many Eastern cultures, the transition into perimenopause focuses on role changes that are viewed as positive, such as becoming a grandmother or



Women's Health Care

caring for aging parents, and this transition can enhance a woman's self-esteem. Therefore, a complete psychosocial history is critical before any specific intervention can be decided upon.

Biological risk factors for perimenopausal depression include: a history of PMDD, postpartum depression, or any other depressive disorders, a perimenopause transition lasting longer than 27 months, thyroid dysfunction and surgical menopause.⁹ With surgical menopause, such as a partial or total hysterectomy, the onset of both physical and psychological symptoms are abrupt, and treating these women is often very challenging.

Psychosocial risk factors that also may contribute to an increased vulnerability to perimenopausal depression include: marital difficulties including loss of sexual libido, parental loss, having children leave home and concern about future retirement.

Management — Management of a perimenopausal woman involves a thorough physical examination with a gynecological consultation, where necessary. If the patient is primarily experiencing physical symptoms, such as hot flashes, vaginal dryness, a decreased libido or insomnia, estrogen replacement therapy is the preferred modality of treatment.^{10,11} If depression is suspected, treatment with antidepressant medications should be discussed in depth with the patient, and a psychiatric consultation may be required.

If progesterone is used by the patient as part of a regimen of hormone replacement therapy, it may result in fluctuation of mood. In such situations, it is recommended an endocrinologist be consulted in order to achieve a balance between hormonal and antidepressant therapies.

Pregnancy, Postpartum Period and Mood Changes

Depression in Pregnancy — Pregnancy has long been associated with a sense of emotional well-being, and indeed, this is the case for the majority of women. Recent publications, however, indicate that for many women, pregnancy does not offer any protection against mental illness. The prevalence rate of depression in pregnancy is estimated to be between 10% and 16%. It is also likely that women who have a prior history of mental illness are at a greater risk for relapse of their symptoms in pregnancy, as many of these women discontinue their medications upon learning of their pregnancy.

Examination of Depression in Pregnancy — The symptoms of depression often mimic the signs of pregnancy, particularly in the first trimester. Specifically, there is often an overlap of symptoms, such as insomnia, tiredness and mood swings, thus making it difficult to accurately diagnose depression during pregnancy. Also, there appears to be a tendency to downplay symptoms of depression anytime during pregnancy, because of our cultural attitude towards pregnancy and the general angst associated with it. Another confounding factor is the reluctance of the woman to confide in her doctor about these symptoms due to the fear of stigmatization. The combination of all of these factors renders early identification of depression in pregnancy a difficult task.

The course of depression in pregnancy typically follows a U-shaped curve. Symptoms are more severe during the first and third trimesters and improvement often occurs in the second trimester.¹² Table 1 describes the key risk factors that are associated with depression in pregnancy.

Anxiety Disorders in Pregnancy

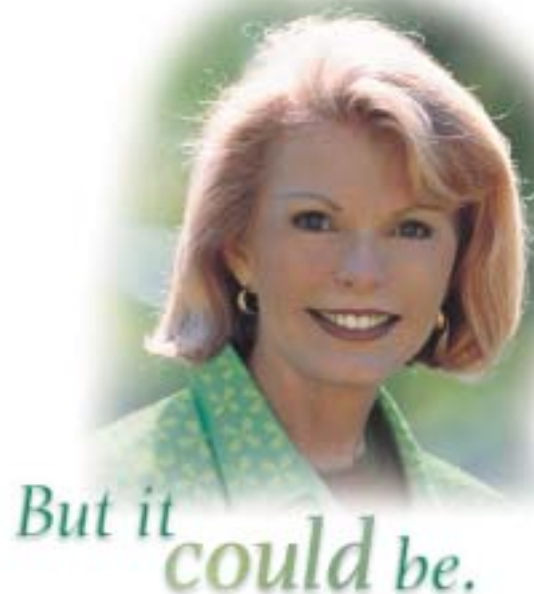
The course of panic disorder in pregnancy is extremely variable. Some women experience an onset of panic during adolescence, and this may become more pronounced during pregnancy. Other women may experience panic attacks for the first time during pregnancy. A decrease in symptomatology during pregnancy for a woman with pre-existing illness is highly unlikely.

Pre-existing obsessive-compulsive disorder (OCD), a condition characterized by obsessional thoughts and compulsive behaviours, often resurfaces in pregnancy. Recent reports suggest some women may be at risk for first-onset OCD in pregnancy. These symptoms often do not come to light until very late in the pregnancy, and they invariably worsen in the postpartum period.¹³ Stressful events at home or at work will further worsen the symptoms of OCD, which is a chronic relapsing illness which requires long-term treatment. The dilemma facing most clinicians is that women are reluctant to take high doses of medications during pregnancy and, therefore, the symptoms of OCD become more refractory to treatment.

Depression in the Postpartum Period

Childbirth is a life event accompanied by unparalleled neuroendocrine, as well as psychosocial, changes. Many studies have reported a marked increase in psychiatric hospitalization during the postpartum period and, indeed, postpartum mood disorders are the most frequently occurring medical complications during this period. Although recognized for centuries, the association between childbirth and mental illness was only recently officially recognized as a psychiatric disorder when it appeared in the 1994 edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). The DSM-IV

COPD
is *seldom* diagnosed
before the sixth decade.



Women's Health Care

Table 1

Risk Factors for Depression in Pregnancy and the Postpartum Period

Biological Risk Factors

History of depression in previous pregnancies or postpartum periods — these women are at 50% to 62% increased risk of recurrent episodes.

Family history of psychiatric disorders, especially postpartum depression.

Previous history of depression — up to 30% of women who have experienced a depressive episode prior to conception will develop depression in pregnancy or the postpartum period.

Contributing Risk Factors

- Poor social support
- Adverse life events
- Marital instability
- Younger maternal age
- Unplanned pregnancy
- Violence or abuse
- Low self-esteem
- Low socioeconomic status

Adapted from: Llewellyn AM, Stowe ZN, Nemeroff CB: Depression during pregnancy and the puerperium. *J Clin Psychiatry* 1997; 58(S15): 26-32. Kumar R, Robson MK: A prospective study of emotional disorders in childbearing women. *Br J Psychiatry* 1984; 144: 35-47. O'Hara MW, Swain AM: Rates and risk of postpartum depression—a meta-analysis. *Int Rev Psychiatry* 1996; 8: 37-54. O'Hara MW: Social support, life events, and depression during pregnancy and the puerperium. *Arch Gen Psychiatry* 1986; 43: 569-73. Beck CT: Predictors of postpartum depression: an update. *Nursing Res* 2001; 50(5): 275-85.

COPD *The evidence*



at 40-50

at 50-55

at 55-60



and the DSM-IV-TR define postpartum depression (PPD) as a major depressive episode that starts in the first four postpartum weeks, however, most researchers and clinicians who work with this population recognize onset of PPD can occur up to six months postpartum.

The “maternity blues” are a relatively mild condition accompanied by lability of mood, crying spells and increased sensitivity. The symptoms most often peak at five days postpartum, do not usually last more than two weeks and remit without treatment. The blues are a normal physiological occurrence, affecting up to 85% of women in the postpartum period. Approximately 20% of women who experience maternity blues will develop major depression in the first postpartum year.

Examination of Postpartum Depression — Because changes in appetite, irregular sleep patterns and fatigue are characteristics of both PPD and a healthy postpartum period, the symptoms of PPD are often overlooked by women’s family and health-care providers. During the standard six-week postpartum checkup with a health-care provider, the focus is mostly on the health of the infant. In addition, many women will not volunteer emotional symptoms unless they are asked about how they are feeling. Taking into account the time restraints of the postnatal visit, unless an effort is made to ask specific questions of the mother, the diagnosis of PPD is often completely missed.

In assessing a woman with suspected PPD, it is important to assess the intensity and severity of symp-

can be there *before 50.*

Diagnose ~~early~~ with anticholinergic if ~~needed~~



at 60-70



Atrovent®

(Ipratropium bromide)
Bronchodilator



Or, to simplify
treatment when a
short-acting agonist
should be added



Combivent®

(Ipratropium bromide
and salbutamol sulfate)
Bronchodilator

Atrovent inhalation aerosol is indicated for the maintenance therapy of responsive cases of chronic reversible airways obstruction, such as chronic bronchitis and asthma.

Combivent inhalation aerosol is indicated for the treatment of bronchospasm associated with chronic obstructive pulmonary disease (COPD).

The most common side effects of Atrovent were dry mouth or throat (9.4%), headache (7.9%), bad taste (3.8%) and palpitations (2.1%) (N=605).

The most common side effects of Combivent were headache (1.1%), bronchitis (1.1%) and cough (1.4%) (N=358).

†† Ensure patient is well controlled on each agent separately and that doses are equivalent.

1. Guidelines for the Treatment of Chronic Obstructive Pulmonary Disease (COPD) 1st Edition 1998, Canadian Respiratory Review Panel
2. Chapman KR. Am J Med 1996; 100 (suppl 1A): 1A-53A-9S

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Table 2

DSM-IV-TR Criteria for Major Depressive Episode, Postpartum Onset

Five or more of the following symptoms must be present daily, or almost daily, for at least two consecutive weeks.

1. Depressed mood*
2. Loss of interest or pleasure in various activities*
3. Significant increases or decreases in appetite
4. Insomnia or hypersomnia
5. Psychomotor agitation or retardation
6. Fatigue or loss of energy
7. Feelings of worthlessness or guilt
8. Diminished concentration
9. Recurrent thoughts of suicide or death

- The symptoms do not meet the criteria for other psychiatric conditions.
- The symptoms cause significant impairment in usual functioning at work, school, and social activities.
- The symptoms are not due to the direct effects of a substance or a general medical condition.
- The symptoms are not better accounted for by bereavement due to the loss of a loved one.

*At least one of those symptoms must be number one or number two.

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Washington, DC, American Psychiatric Association, 2000.

toms. Patient-rated scales, such as the Edinburgh Postnatal Depression Scale (EPDS) or the Postpartum Depression Screening Scale (PDSS) are important tools that can help with early identification of PPD.^{14,15} Most importantly, a proper clinical interview that focuses on the diagnostic criteria outlined in Table 2 is critical to making a diagnosis of PPD. When a woman has been identified as suffering from PPD, all treatment options should be reviewed with both the patient and her partner, when possible.

Co-morbidity in the Postpartum Period — Postpartum depression almost always occurs with co-morbid anxiety symptoms. This most often involves exacerbation of pre-existing panic disorder or obsessive-compulsive disorder. Frequently, a woman with dramatic anxiety symptoms will end up in a hospital emergency room, and this may be the first time a diagnosis of PPD is made. Obsessive thoughts of harming the infant often accompany severe PPD. It is important to distinguish these ego-dystonic thoughts from psychotic thinking, as the ego-dystonic thoughts will usually disappear once the depression is treated, whereas psychotic thoughts will persist.


Psychotic Depression in Postpartum

The rare phenomenon of psychotic depression in the postpartum period involves an underlying depression complicated by superimposed psychotic thoughts. In extreme cases, untreated psychotic depression can result in a tragedy, such as suicide or infanticide. The delusions that accompany psychotic depression in the postpartum period frequently involve the infant, thereby increasing the possibility the infant may be harmed. Postpartum psychotic depression is a medical emergency that requires immediate hospitalization and treatment with antipsychotic medications.

Management of Depression and Anxiety:

Disorders in Pregnancy and the Postpartum Period — When considering treatment options for a pregnant or postpartum woman with depression and/or anxiety, a biopsychosocial approach is ideal. In this model, psychotherapies are the first line of treatment for mild-to-moderate symptoms. All psychotropic medications cross the placenta and cause *in utero* exposure to the developing fetus, and are also found in breast milk in varying amounts. Untreated maternal mood disorders have been shown to interfere with maternal-infant bonding, and may have long-term negative implications on the cognitive and emotional development of the child. For women who are acutely suicidal or cannot tolerate medications, electroconvulsive therapy is very effective and has not been associated with any adverse effects in pregnant or postpartum women.

Conclusion

Reproductive Mental Health is a subspecialty that focuses on psychiatric disorders associated with specific reproductive milestones in a woman's life: premenstrual phase, pregnancy, the postpartum period and perimenopause. Given the high prevalence of depression and anxiety disorders in women during these phases, it is likely most health-care providers will encounter such patients in their practice. Recognizing the risk factors and common presentations of depression and anxiety are key to early detection. By offering timely and appropriate treatment, a healthy outcome will be more likely for the woman and her family. 

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