

In postpartum depression, early treatment is key

The tragedy of Andrea Yates, the Texas mother convicted of drowning her 5 children, raises questions about the role of physicians in identifying and treating women at risk for severe postpartum depression. In most cases, Ob/Gyns are the first line of defense.

By SHAILA MISRI, MD, and XANTHOULA KOSTARAS

In the postpartum period, between 12% and 16% of women experience a major depressive episode that can have severe and long-lasting consequences for both mother and infant.^{1,2} If left untreated, postpartum depression (PPD) can impair maternal-infant bonding and hinder the child's cognitive and emotional development.

This article is based on our experience caring for women with PPD, and aims to help the Ob/Gyn detect and diagnose the disorder more quickly and make psychiatric or psychotherapeutic referrals when appropriate.

Risk factors

Key risk factors, such as a history of PPD or depression, have been identified as predictors of PPD (Table 1).^{3,4}

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Although the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) states that the onset of PPD occurs within 4 weeks of giving birth,⁵ our clinical experience indicates that it can occur up to 1 year after birth. The essential feature of a major depressive disorder, according to the DSM-IV, is "a clinical course that is characterized by one or more Major Depressive Episodes" (Table 2).

PPD often is associated with comorbid anxiety disorders, which manifest in many ways. Panic attacks frequently are the first indication of existing or impending depression. A small percentage of women will experience intrusive obsessional thoughts of harming their infants.

Screening and diagnosis

Many women fail to report depressive symptoms to their obstetricians during the routine postpartum visit. A recent study of 391 outpatients in an obstetric practice demonstrates the value of using a screening instrument to identify possible PPD cases at this time. When the women were screened with the standardized Edinburgh Postnatal Depression Scale (EPDS), the rate of detec-

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tion of PPD was 35.4%, compared with a spontaneous detection rate of 6.3%.⁶

The EPDS, shown on page 65, is a 10-item self-report questionnaire developed by Cox and colleagues and used specifically to detect PPD.⁷ A minimum score of 12 or 13 or higher warrants a diagnosis of PPD. The instrument can be used as a screening tool at 6 to 8 weeks postpartum and can be repeated over several visits to track symptoms. It has been validated, computerized, and translated into more than 12 languages and can be copied and used free of charge.

A new screening tool, the Postpartum Depression Screening Scale (PDSS), was recently developed and validated by Beck and colleagues to help clinicians identify and respond to PPD as early as possible.⁸ Depressive symptoms are rated on a 5-point scale, and the total score is used to determine the overall severity of depressive symptoms. Higher PDSS scores reflect more severe symptoms and indicate that the patient should be referred for psychiatric evaluation. The PDSS is published by Western Psychological Services (www.wpspublish.com).

Management guidelines

Based on our experience and the available evidence, we offer these recommendations to Ob/Gyns managing patients with PPD:

1. During the initial postpartum assessment, use screening tools such as the EPDS or the PDSS to identify symptom patterns and assist with diagnosis.
2. Give the patient educational materials about PPD and her treatment options to help her make informed decisions. Reading lists, appropriate research articles, lists of local resources, and Web sites can increase her awareness of PPD and drive home the importance of seeking and complying with treatment. When appropriate (e.g., in cases of moderate to severe PPD), refer the patient for counseling and encourage her to include her partner, family members, and/or other social supports.
3. If pharmacotherapy is to be prescribed, discuss the medication's benefits and potential risks for both mother and infant—over the short and long term—in an honest and open fashion.

Risk factors for postpartum depression

TABLE 1

Major factors

- History of PPD
- History of depression
- Family history of depression, especially PPD
- Depression during pregnancy

Contributing factors

- Poor social support
- Adverse life events
- Marital instability
- Younger maternal age (14 to 18 years)
- Infants with health problems or perceived poor temperaments
- Unwanted or unplanned pregnancy
- Being a victim of violence or abuse
- Low self-esteem
- Low socioeconomic status

DSM-IV criteria for a major depressive episode

TABLE 2

- A. Five or more of the following symptoms must be present daily or almost daily for at least 2 consecutive weeks:
1. Depressed mood*
 2. Loss of interest or pleasure*
 3. Significant increase or decrease 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
- B. The symptoms do not meet the criteria for other psychiatric conditions.
- C. The symptoms cause significant impairment in functioning at work, school, and social activities.
- D. The symptoms are not caused directly by a substance or general medical condition.
- E. The symptoms are not caused by bereavement after the loss of a loved one.

*At least one of the 5 symptoms must be #1 or #2.
SOURCE: Adapted from *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed [text revision]. Washington, DC: American Psychiatric Association; 2000.

4. Outline a treatment plan with the patient and her partner. This should include 6 weeks of treatment during the acute phase, as well as maintenance and long-term therapy.

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During the acute phase, the mood of the patient should be carefully monitored on a weekly basis. It may be necessary to include a psychiatrist or mental health-care worker during this phase.

5. If applicable, discuss the planning of future pregnancies while the woman is still on pharmacotherapy—and include her partner, if at all possible. Women who have experienced repeated episodes of depression almost always relapse when they discontinue an antidepressant during pregnancy.

Psychosocial therapies are the first line of treatment for mild to moderate PPD and are useful adjuncts to pharmacotherapy. When psychotropic medications are indicated for moderate to severe symptoms, consider the potential risk of exposing the breastfeeding infant to the drugs.

Mild to moderate PPD

OBG patients diagnosed with this level of PPD should be referred for counseling, particularly if they refuse pharmacotherapy.

However, if the depression worsens at any time, treatment with the appropriate medication should be made available. Among the options are cognitive-behavioral therapy, interpersonal therapy, group therapy, family and/or marital therapy, supportive psychotherapy, and peer-support groups. Psychosocial therapies also should be used as adjuncts to pharmacotherapy.

Cognitive-behavioral therapy. A preliminary study examining short-term cognitive-behavioral counseling for women with PPD reported that

patients who participated in 6 sessions improved as much as women receiving fluoxetine alone. Both groups demonstrated greatly improved functioning when compared with controls.⁹

Interpersonal therapy. During pregnancy and the postpartum period, this therapy focuses on role transitions and the acquisition of skills applicable to motherhood. The results of preliminary studies have been encouraging.¹⁰ For example, a recent controlled trial of 99 women found that interpersonal therapy

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Interpersonal therapy
helps decrease
depressive symptoms
in women with
moderate PPD.

SSRI drug therapy for postpartum depression

TABLE 3

| Medication | Starting daily dose (mg) | Maximum daily dose (mg) | Precautions |
|-------------|--------------------------|-------------------------|---|
| Fluoxetine | 10 | 80 | Very long half-life of active metabolite may lead to accumulation in infants. Inform parents of possible side effects. |
| Sertraline | 25 | 300 | Benign neonatal sleep myoclonus has been documented in 1 case of sertraline exposure during breastfeeding. Inform parents of possible side effects. |
| Paroxetine | 10 | 60 | No adverse effects reported. |
| Fluvoxamine | 50 | 300 | Data limited |
| Citalopram | 10 | 60 | Data limited |

Related Resources

Publications:

- Misri S. *Shouldn't I Be Happy? Emotional Problems of Pregnant and Postpartum Women*. New York, NY: Free Press; 1995.
- Sichel D, Driscoll JW. *Women's Moods: What Every Woman Must Know About Hormones, the Brain, and Emotional Health*. New York, NY: William Morrow; 1999.

Support groups:

- Depression After Delivery, Inc.
www.depressionafterdelivery.com
or 1-800-944-4773 (4PPD)
- Postpartum Support International.
www.postpartum.net
- Pacific Postpartum Support Society.
www.postpartum.org

helps decrease depressive symptoms and promotes social adjustment in women with moderate PPD.¹¹

Group therapy. One of the most valuable benefits of group therapy in the treatment of PPD is that it may help women who are feeling socially isolated increase their support networks.

Family and marital therapy. The roles of the partner and family are critical in the treatment of women with mood and anxiety disorders during pregnancy or the postpartum period. A recent study found women with PPD recover more rapidly when the partner is supportive.¹²

Supportive psychotherapy involves offering patients and their families support, reassurance, and education; it augments other psychosocial interventions and/or pharmacotherapy. In some cases, e.g., if a woman's depressive symptoms are too severe for her to engage in cognitive-behavior or interpersonal therapy, or if she refuses pharmacotherapy, supportive psychotherapy may be the only treatment she receives. In such cases, it is used to monitor her mental state.

Peer-support groups. Several groups formed by

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Andrea Yates: a case of missed warning signs

Here's a troubling statistic: Approximately 30% of women with postpartum depression experience thoughts of suicide or infanticide/homicide. Andrea Yates, the 37-year-old Texas mother convicted of drowning her 5 children, showed warning signs of suicidal and homicidal thoughts long before she committed the acts themselves. In fact, these signs began shortly after the birth of her first child.

At her trial, Yates pleaded not guilty by reason of insanity. Defense attorneys presented testimony by psychiatrists that she was suffering from postpartum psychosis and schizoaffective disorder. They argued that her mental illness produced the delusional belief that killing her children would save them from eternal damnation. Prosecutors convinced the jury that—although she was ill—Yates was capable of distinguishing right from wrong at the time of the murders and therefore did not meet the strict Texas standard for insanity.

It remains unclear why Yates discontinued her antipsychotic medication a few weeks prior to the murders and why her suicidal and homicidal ideations were not taken seriously by those around her. Had she received appropriate psychiatric care, this tragedy likely would have been prevented.

Mental illness during pregnancy or the postpartum period is poorly understood by the public, including new mothers, their partners, and families. The guilty verdict and life sentence in this case represent an enormous step backward. The media treatment of Yates and her imprisonment—rather than hospitalization for proper treatment of her mental illness—may deter women from disclosing to their physicians any negative feelings they may be experiencing during pregnancy or the postpartum period. Thus, it is even more important that Ob/Gyns ask specifically about postpartum depression, explore possible symptoms, and refer appropriately.

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consumers and health-care providers offer support and education to women with reproductive-associated mood and anxiety disorders. For more information, see the box on related resources on page 59.

Pharmacologic treatment

Pharmacotherapy is indicated in women with moderate to severe symptoms who do not respond to psychosocial treatment alone. Because all psychotropic medications are excreted in breast milk and passed on to the nursing infant, one must weigh the potential risks of the infant's exposure to medication against the risks of untreated maternal depression.

Selective serotonin reuptake inhibitors (SSRIs) and tricyclic antidepressants are used most commonly to treat PPD. Monoamine oxidase inhibitors (MAOIs) are not recommended, as they have been reported to exacerbate hypertension, and their interaction with food and other medications can complicate treatment. Further, only limited evidence

is available on the effects of MAOIs during pregnancy and the postpartum period.

The literature on the use of SSRIs in lactating women has expanded rapidly in recent years (Table 3). But because these agents have been on the market a relatively short time, the long-term developmental effects of infants' exposure to SSRIs through breast milk have yet to be evaluated.

Fluoxetine. Most of the published data on the use of SSRIs in breastfeeding women concern the drug fluoxetine. To date, 9 studies have reported the outcomes of a total of 57 infants exposed to fluoxetine during breastfeeding.^{13,14} Norfluoxetine, the drug's potent metabolite, has a long half-life that may predispose to accumulation in the serum of nursing infants.

Adverse effects such as colic, fussiness, crying, seizure activity, and reduced weight gain were reported in 2 cases.^{15,16} The remaining studies on the use of fluoxetine by breastfeeding women reported low drug levels in both mothers and infants. No other

adverse effects have been documented.

Sertraline. To date, 7 published reports of sertraline exposure have documented 46 infant outcomes. In all these reports, sertraline and its weak metabolite have been detected in low or trace amounts in the sera of nursing infants.^{13,14,17-19} A recent study of 19 breastfeeding mother-infant pairs found that platelet serotonin uptake in these infants was unaltered, despite the detection of low serum levels of sertraline and its metabolite.¹⁹

Paroxetine. Although this agent does not contain an active metabolite that could potentially accumulate in the serum of nursing infants, it is excreted into the breast milk. Five reports totaling 60 infant outcomes have been published regarding paroxetine exposure during breastfeeding. Low or undetectable serum levels were reported in all of the infants, and no adverse effects were noted.^{13,14,20}

Fluvoxamine and citalopram. Two small case studies of fluvoxamine have each reported very low drug levels in breast milk and no adverse events in the exposed infants.^{21,22} Only 3 case studies involving 5 infants exposed to citalopram during breastfeeding have been published.¹³ Because information is limited regarding the effects of these medications on nursing infants, caution is advised when prescribing them to breastfeeding women.

Tricyclics and other antidepressants

Tricyclics are useful for treating PPD when the patient previously has responded well to them or SSRIs have failed. All tricyclic antidepressants are excreted into breast milk in low concentrations, and a wide range of infant serum levels has been reported.

No adverse effects have been documented for infant exposure to amitriptyline, clomipramine, desipramine, imipramine, or nortriptyline.^{13,14,23,24} The active metabolite of doxepin has the longest half-life (37 hours) among the tricyclics and may be potentially hazardous to nursing infants because of high serum accumulations. Because 2 reports have associated doxepin exposure with respiratory distress, poor sucking, drowsiness, and vomiting in infants, the use of medications with a shorter half-life and better-docu-

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The
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mented effects is recommended.¹³

Limited evidence is available on the use of newer antidepressants such as bupropion, trazodone, and nefazodone by breastfeeding women.²⁵⁻²⁷ When possible, patients should be prescribed an antidepressant that has been documented more closely in this population.

Venlafaxine is a newer antidepressant that inhibits reuptake of both serotonin and norepinephrine. The only case report published to date regarding venlafaxine levels in nursing infants found high drug levels in the sera of 3 exposed infants, but no adverse effects.²⁸

When psychosis is present

Psychotic depression in the postpartum period is sometimes associated with chronic mood disorders, especially untreated depression. The most prevalent psychotic features include paranoid delusions that incorporate the newborn. Hallucinations are rare. Psychotic depression places the postpartum patient at a heightened risk for suicide and/or infanticide and is considered a medical emergency that requires immediate hospitalization and treatment to ensure the safety of the infant and the ill mother (see the sidebar on page 60 for an example of the dangers of missing these warning signs).

Key Points

- Between 12% and 16% of women experience a major depressive episode in the postpartum period. Of these, approximately 30% have thoughts of suicide or infanticide/homicide.
- Postpartum depression (PPD) often is associated with comorbid anxiety disorders.
- Women who have had repeated episodes of depression almost always relapse when they discontinue an antidepressant during pregnancy.
- Selective serotonin reuptake inhibitors (SSRIs) and tricyclics are used most commonly to treat PPD. When psychosis is present, antipsychotic drugs and/or electroconvulsive therapy also are options.

To distinguish psychotic depression from regular postpartum depression, it is critical that the Ob/Gyn inquire about the presence of perceptual disturbances and delusional thinking, both of which are markers of psychotic depression. Very few new mothers will volunteer this information if not specifically asked about these symptoms.

If a patient with psychotic PPD is experiencing delusions centered on harming her infant, a family member or members should assume responsibility for the child's care, and the patient should not be left alone with the infant. When the mother is hospitalized, visitation between the mother and infant should be restricted, particularly if the infant's presence precipitates anxiety in the mother. The goal of hospitalization is to achieve symptom remission and stability so that bonding and attachment can occur. Maternal-infant bonding is difficult, if not impossible, if the mother is out of touch with reality.

Postpartum psychosis is rare and requires immediate intervention. Treatment with antipsychotics is one of the most effective methods for controlling these episodes. Most women with postpartum psychosis will be too disorganized to consider breastfeeding. However, if such a patient expresses a desire to do so, a discussion in the presence of her partner about infant exposure is recommended.

Antipsychotics and electroconvulsive therapy

The effects of infant exposure through breast milk to the typical antipsychotics (e.g., chlorpromazine, trifluoperazine, haloperidol) include drowsiness, lethargy, and possible developmental delays.¹³ Nursing infants should be monitored for sedation and other adverse effects during long-term maternal use of these medications.

Evidence on the use of atypical antipsychotics during breastfeeding is limited. One report described cardiomegaly, jaundice, and sedation in 1 of 3 infants exposed to olanzapine through breast milk. However, these effects could not be attributed directly to breast milk, as the infant was exposed both in utero and during breastfeeding.¹³

One report of a nursing infant exposed to

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The Edinburgh Postnatal Depression Scale (EPDS)

How to administer the EPDS

1. Ask the mother to check the response that comes closest to how she has been feeling in the previous 7 days.
2. All 10 items must be completed.
3. Avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or difficulty reading.
5. The EPDS may be used at 6 to 8 weeks' postpartum.

As you have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

1. I have been able to laugh and see the funny side of things.
 - As much as I always could
 - Not quite so much now
 - Definitely not so much now
 - Not at all
2. I have looked forward with enjoyment to things.
 - As much as I ever did
 - Slightly less than I used to
 - Significantly less than I used to
 - Hardly at all
3. *I have blamed myself unnecessarily when things went wrong.
 - Yes, most of the time
 - Yes, some of the time
 - Not very often
 - No, never
4. I have been anxious or worried for no good reason.
 - No, not at all
 - Hardly ever
 - Yes, sometimes
 - Yes, very often
5. *I have felt scared or panicky without a good reason.
 - Yes, quite a lot
 - Yes, sometimes
 - No, not much
 - No, not at all
6. *I sometimes feel overwhelmed by my responsibilities.
 - Yes, most of the time I haven't been able to cope at all
 - Yes, sometimes I haven't been coping as well as usual
 - No, most of the time I have coped quite well
 - No, I have been coping as well as ever
7. *I have been so unhappy that I have had difficulty sleeping.
 - Yes, most of the time
 - Yes, sometimes
 - Not very often
 - No, not at all
8. *I have felt sad or miserable.
 - Yes, most of the time
 - Yes, quite often
 - Not very often
 - No, not at all
9. *I have been so unhappy that I have been crying.
 - Yes, most of the time
 - Yes, quite often
 - Only occasionally
 - No, never
10. *The thought of harming myself has occurred to me.
 - Yes, quite often
 - Sometimes
 - Hardly ever
 - Never

Responses to statements 1, 2, and 4 are scored 0, 1, 2, and 3 according to increasing severity of symptoms, and statements marked with an asterisk (*) are reverse-scored (3, 2, 1, and 0). The total is calculated by adding the scores of all 10 items. A score of 12 or 13 or higher has been found to identify most women with a diagnosis of PPD.

SOURCE: Adapted from Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry*. 1987;150:782-786.

risperidone indicated no adverse effects,²⁹ and there is no published data on quetiapine use during breastfeeding.

If the patient with psychotic PPD cannot tolerate or does not respond to antipsychotic medication, electroconvulsive therapy (ECT) may be indicated. In the postpartum period, ECT is safe for both mother and infant. It is particularly useful when rapid treatment is imperative, as in the case of severe depression with psychotic symptoms, acute mania, and in mothers at risk for suicide or infanticide.³⁰

Conclusion

A significant proportion of women experience PPD. If it is not identified and treated early enough, maternal-infant bonding may be impaired and the child's cognitive and emotional development may be hindered. In severe cases, particularly when psychosis is present, the infant may even be in danger of physical harm. ■

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Dr. Misri reports that she receives grant/research support from and serves on the speakers' bureau of GlaxoSmithKline Canada, receives research/grant support from Wyeth-Ayerst Pharmaceuticals, and has lectured for Eli Lilly & Co, AstraZeneca, and Janssen-Ortho.