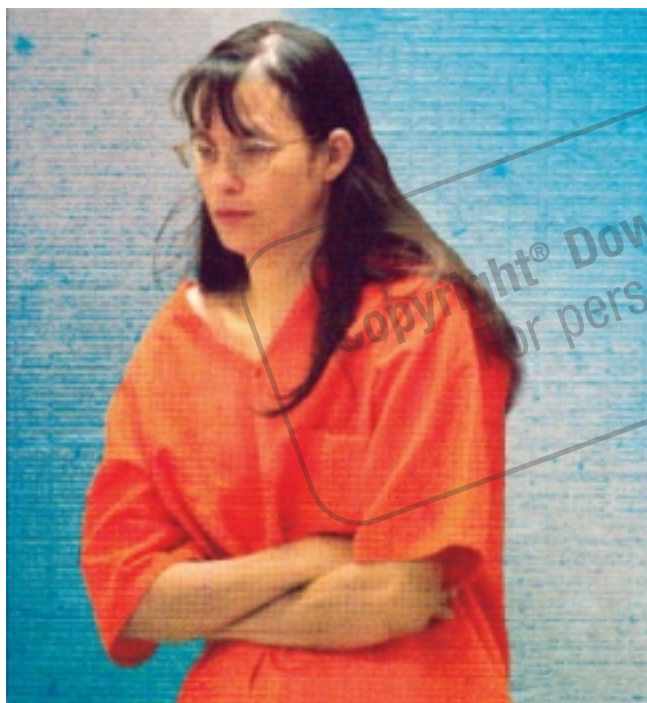


Postpartum psychosis: Strategies to protect infant and mother from harm



Andrea Yates in September 2001 at her competency hearing in a Houston, TX courtroom, before her conviction of murder in the drowning of her children.

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Counsel at-risk women before delivery, and be alert for rapid symptom onset

In June 2001, Andrea Yates drowned her 5 children ages 6 months to 7 years in the bathtub of their home. She had delusions that her house was bugged and television cameras were monitoring her mothering skills. She came to believe that “the one and only Satan” was within her, and that her children would burn in hell if she did not save their souls while they were still innocent.

Her conviction of capital murder in her first trial was overturned on appeal. She was found not guilty by reason of insanity at her retrial in 2006 and committed to a Texas state mental hospital.¹

Postpartum psychosis (PPP) presents dramatically days to weeks after delivery, with wide-ranging symptoms that can include dysphoric mania and delirium. Because untreated PPP has an estimated 4% risk of infanticide (murder of the infant in the first year of life),² and a 5% risk of suicide,³ psychiatric hospitalization usually is required to protect the mother and her baby.

The diagnosis may be missed, however, because postpartum psychotic symptoms wax and wane and suspiciousness or poor insight cause some women—such as Andrea Yates—to hide their delusional thinking from their families. This article discusses the risk factors, prevention, and treatment of PPP, including a review of:

- infanticide and suicide risks in the postpartum period
- increased susceptibility to PPP in women with bipolar disorder and other psychiatric disorders
- hospitalization for support and safety of the mother and her infant.

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Table 1

Motives for infanticide: Mental illness or something else?

Motives	Examples
Likely related to postpartum psychosis or depression	
Altruistic	A depressed or psychotic mother may believe she is sending her baby to heaven to prevent suffering on earth A suicidal mother may kill her infant along with herself rather than leave the child alone
Acutely psychotic	A mother kills her baby for no comprehensible reason, such as in response to command hallucinations or the confusion of delirium
Rarely related to postpartum psychosis	
Fatal maltreatment	'Battered child' syndrome is the most common cause of infanticide; death often occurs after chronic abuse or neglect A minority of perpetrators are psychotic; a mother out of touch with reality may have difficulty providing for her infant's needs
Not likely related to postpartum psychosis	
Unwanted child	Parent does not want child because of inconvenience or out-of-wedlock birth
Spouse revenge	Murder of a child to cause emotional suffering for the other parent is the least frequent motive for infanticide

Source: Reference 4

Risks of infanticide and suicide

A number of motives exist for infanticide (Table 1).⁴ Psychiatric literature shows that mothers who kill their children often have experienced psychosis, suicidality, depression, and considerable life stress.⁵ Common factors include alcohol use, limited social support, and a personal history of abuse. Studies on infanticide found a significant increase in common psychiatric disorders and financial stress among the mothers. Neonaticide (murder of the infant in the first day of life) generally is not related to PPP because PPP usually does not begin until after the day of delivery.⁶

Among women who develop psychiatric illness, homicidal ideation is more frequent in those with a perinatal onset of psychopathology.⁷ Infanticidal ideas and behavior are associated with psychotic ideas about the infant.⁸ Suicide is the cause of up to 20% of postpartum deaths.⁹

The bipolar connection

Many factors can elevate the risk of PPP, including sleep deprivation in susceptible women, the hormonal shifts after birth, and psychiatric comorbidity (Table 2, page

42). Nearly three-fourths (>72%) of mothers with PPP have bipolar disorder or schizoaffective disorder, whereas 12% have schizophrenia.¹⁰ Some authors consider PPP to be bipolar disorder until proven otherwise. Mothers with a history of bipolar disorder or PPP have a 100-fold increase in rates of psychiatric hospitalization in the postpartum period.¹¹

PPP is not categorized as a distinct disorder in DSM-IV-TR, and lack of a consistent terminology has led to differing definitions. Brief psychotic disorder, psychotic disorder not otherwise specified, and affective disorders are sometimes proffered.¹² Some DSM disorders permit the specifier "with postpartum onset" if the symptoms occur in mothers within 4 weeks of birth.

Presentation. PPP is relatively rare, occurring at a rate of 1 to 3 cases per 1,000 births. Symptoms often have an abrupt onset, within days to weeks of delivery.¹⁰ In at least one-half of cases, symptoms begin by the third postpartum day,¹³ when many mothers have been discharged home and may be solely responsible for their infants.

Symptoms include confusion, bizarre behaviors, hallucinations (including rarer

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Mothers who kill their children often have experienced psychosis, suicidality, depression, and considerable stress (including abuse)



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Depression with rapid mood changes is a symptom that suggests postpartum psychosis rather than postpartum depression alone

Table 2 Postpartum psychosis: Risk factors supported by evidence

Sleep deprivation in susceptible women
Hormonal shifts after birth (primarily the rapid drop in estrogen)
Psychosocial stressors such as marital problems, older age, single motherhood, lower socioeconomic status
Bipolar disorder or schizoaffective disorder
Past history of postpartum psychosis
Family history of postpartum psychosis
Previous psychiatric hospitalization, especially during the prenatal period for a bipolar or psychotic condition
Menstruation or cessation of lactation
Obstetric factors that can cause a small increase in relative risk: <ul style="list-style-type: none"> • first pregnancy • delivery complications • preterm birth • acute Caesarean section • long duration of labor
<small>Source: For bibliographic citations, see this article at CurrentPsychiatry.com</small>

Box Medical workup in differential diagnosis of postpartum psychosis

When evaluating a postpartum woman with psychotic symptoms, stay in contact with her obstetrician and the child's pediatrician. Rule out delirium and organic causes of the mother's symptoms, giving special consideration to metabolic, neurologic, cardiovascular, infectious, and substance- or medication-induced origins. The extensive differential diagnosis includes:

- thyroiditis
- tumor
- CNS infection
- head injury
- embolism
- eclampsia
- substance withdrawal
- medication-induced (such as corticosteroids)
- electrolyte anomalies
- anoxia
- vitamin B₁₂ deficiency.¹¹

types such as tactile and olfactory), mood lability (ranging from euphoria to depression), decreased need for sleep or insomnia, restlessness, agitation, disorganized thinking, and bizarre delusions of relatively rapid onset.¹³ One mother might believe God wants her baby to be sacrificed as the second coming of the Messiah, a second may believe she has special powers, and a third that her baby is defective.

Differential diagnosis

When evaluating a postpartum woman with psychotic symptoms, stay in contact with her obstetrician and the child's pediatrician. Rule out delirium and organic causes of the mother's symptoms (*Box*).¹¹

The psychiatric differential diagnosis includes "baby blues"—mild, transient mood swings, sadness, irritability, anxiety, and insomnia that most new mothers experience in the first postpartum week. Schizophrenia's delusional thinking and hallucinations have a more gradual onset, compared with those of postpartum psychosis.

Postpartum depression (PPD) occurs in approximately 10% to 15% of new mothers.¹⁴ Depressive symptoms occur within weeks to months after delivery and often coexist with anxious symptoms. Some women with severe depression may present with psychotic symptoms. A mother may experience insomnia, sometimes not being able to sleep when the baby is sleeping. She may lack interest in caring for her baby and experience difficulty bonding.

At times it can be difficult to distinguish PPD from PPP. When evaluating a mother who is referred for "postpartum depression," consider PPP in the differential diagnosis. A woman with PPD or PPP may report depressed mood, but in PPP this symptom usually is related to rapid mood changes. Other clinical features that point toward PPP are abnormal hallucinations (such as olfactory or tactile), hypomanic or mixed mood symptoms, and confusion.

Suicidal thoughts or thoughts of harming the infant may be present in either PPD or PPP. Both elevate the risk of infanticide; one study found that 41 out of 100

Table 3

Treating postpartum psychosis: Consider 3 components

Component	Recommendations
Hospitalization vs home care	Hospitalize in most cases because of emergent severe symptoms and fluctuating course; base decision on risk evaluation/safety issues for patient and infant After discharge, visiting nurses are useful to help monitor the mother's condition at home
Psychoeducation	Educate patient, family, and social support network; address risks to mother and infant and risks in future pregnancies
Medication	When prescribing mood stabilizers and/or antipsychotics, consider: <ul style="list-style-type: none"> • whether mother is breast-feeding (discuss with patient, family, and pediatrician) • maternal side effects, including sedation

depressed mothers acknowledged having thoughts of harming their infants.¹⁵

Psychosis vs OCD. Psychotic thinking and behaviors also must be differentiated from obsessive thoughts and compulsions.^{10,16} Obsessive compulsive disorder (OCD) may be exacerbated or emerge for the first time during the perinatal period.¹⁷

In postpartum OCD, women may experience intrusive thoughts of accidental or purposeful harm to their baby. As opposed to women with PPP, mothers with OCD are not out of touch with reality and their thoughts are ego-dystonic.¹⁷ When these mothers have thoughts of their infants being harmed, they realize that these thoughts are not plans but fears and they try to avoid the thoughts.

Preventing PPP

Bipolar disorder is one of the most difficult disorders to treat during pregnancy because the serious risks of untreated illness must be balanced against the potential teratogenic risk of medications. Nevertheless, proactively managing bipolar disorder during pregnancy may reduce the risk of PPP.¹⁰

Closely monitor women with a history of bipolar disorder or PPP. During pregnancy, counsel them—and their partners—to:

- anticipate that depressive or psychotic symptoms could develop within days after delivery¹⁸
- seek treatment immediately if this occurs.

Some women will prefer to remain off medication during the first trimester—which is critical in organogenesis—and then restart medication later in pregnancy. This approach is not without risks, however (see *Related Resources, page 45*).

Postpartum medication. Whether or not a woman with bipolar disorder takes medication during pregnancy, consider treatment with mood stabilizers or atypical antipsychotics in the postpartum to prevent PPP (*Table 3*). Evidence is limited, but a search of PubMed found 1 study in which prophylactic lithium was given late in the third trimester or immediately after delivery to 21 women with a history of bipolar disorder or PPP. Only 2 patients had a psychotic recurrence while on prophylactic lithium; 1 unexplained stillbirth occurred.¹⁹

A retrospective study examined the course of women with bipolar disorder, some of whom were given prophylactic mood stabilizers immediately in the postpartum. One of 14 who received antimanic agents relapsed within the first 3 months postpartum, compared with 8 of 13 who were not so treated.¹⁸

Compared with antiepileptics, less information is available about the use of atypical antipsychotics in pregnancy and lactation. Antipsychotics' potential advantage in women at risk for PPP is that these agents may help prevent or treat both manic and psychotic symptoms.

In a small, naturalistic, prospective

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Proactively managing bipolar disorder during pregnancy may reduce the risk of postpartum psychosis



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Initial evaluation and management of postpartum psychosis usually requires hospitalization

Table 4 Discharge planning for safety of mother and infant

Notify child protective services (CPS) depending on the risk to the child. Case-by-case review is needed to assess whether the infant should be removed. CPS may put in place a plan for safety, short of removal. The plan may require that the woman continue psychiatric care

Meet with the patient and family to discuss her diagnosis, the risks, the importance of continued medication adherence, and the need for family or social supports to assist with child care

Consider engaging visiting nurses or doulas to provide help and support at home

Schedule frequent outpatient appointments for the mother after discharge

Consider family therapy after the mother has improved because of her risk for affective episodes outside the postpartum²⁸

study, 11 women at risk for PPP received olanzapine alone or with an antidepressant or mood stabilizer for at least 4 weeks after delivery. Two (18%) experienced a postpartum mood episode, compared with 8 (57%) of 14 other at-risk women who received antidepressants, mood stabilizers, or no medication.²⁰

Breast-feeding. Consider treatment effects on lactation and discuss this with the mother and the baby's pediatrician, when possible. For useful reviews of risks and benefits of mood stabilizers and antipsychotics during breast-feeding, see *Related Resources*.

When you discuss breast-feeding, consider possible risks to the neonate as well as potential sleep interruption for the mother. If a mother has a supportive partner, the partner might be put in charge of night-time feedings in a routine combining breast-feeding and bottle-feeding. In some cases you may need to recommend cessation of lactation.²¹

Managing PPP

Early symptoms. Because of its severity and rapid evolution, PPP often presents

as a psychiatric emergency. Monitor at-risk patients' sleep patterns and mood for early signs of psychosis.²² Watch especially for hypomanic symptoms such as elevated or mixed mood and decreased judgment, which are common early in PPP.¹³

A mother with few signs of abnormal mood, good social support, and close follow-up may potentially be safely managed as an outpatient. Initial evaluation and management of PPP usually requires hospitalization, however, because of the risks of suicide, infanticide, and child maltreatment.²³

Hospitalization. Mother-infant bonding is important, but safety is paramount if a mother is psychotic—especially if she is experiencing psychotic thoughts about her infant. If possible, the infant should remain with family members during the mother's hospitalization. Supervised mother-infant visits are often arranged, as appropriate.

Mood-stabilizing medications, including antipsychotics, are mainstays of treatment.²⁴ In some cases, conventional antipsychotics such as haloperidol may be useful because of a lower risk of weight gain or of sedation that could impair a mother's ability to respond to her infant. Electroconvulsive therapy often yields rapid symptomatic improvement for mothers with postpartum mood or psychotic symptoms.²⁵

During the mother's hospitalization, encourage the staff to be supportive and convey hopefulness.²⁶ In an interview study, women who had been treated for PPP said they experienced anger and frustration while hospitalized because they believed that they and their families received inadequate information and support.²⁷

Discharge planning. Assuming that the mother adheres to prescribed treatment, discharge may occur within 1 week. Plan discharge arrangements carefully (*Table 4*).²⁸ A team approach can be very useful within the outpatient clinic. In the model of the Perinatal Psychiatry Clinic of Connections in suburban Cleveland, OH, the mother's treatment team includes perinatal psychiatrists, nurses, counsellors, case managers (who do home visits), and peer counselors.

Related Resources

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Drug Brand Names

Haloperidol • Haldol Olanzapine • Zyprexa
Lithium • various

Disclosures

The authors report no financial relationship with any company whose products are mentioned in this article or with manufacturers of competing products.

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Outpatient civil commitment, in which patients are mandated to accept treatment, is an option in some jurisdictions and could help ensure that patients receive treatment consistently.

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Mood-stabilizing agents, including antipsychotics, are mainstays of treatment for postpartum psychosis

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Bottom Line

Postpartum psychosis (PPP) may present in a new mother with rapid onset of hallucinations, delusions, mood swings, confusion, and insomnia. Counsel women with a history of bipolar disorder and their partners to report these symptoms immediately if they occur. Consider the risks and potential prophylactic benefits of mood stabilizers or antipsychotics during pregnancy and the postpartum. In most cases, patients with PPP require hospitalization, especially if they have delusions about or thoughts of harming their infants.

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