

Puerperal psychosis: an update

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INTRODUCTION

Mental illnesses contribute to the total number of sick people in the world. Between 2000 and 2012, the World Health Organization (WHO) estimated that 64 million worldwide disability-adjusted life years (DALYs) were lost due to mental and behavioral problems among women of reproductive age (15–49 years)¹. For women, the proportion of DALYs lost is greatest during their prime reproductive years. These results emphasize the need to consider perinatal (i.e., prenatal and postnatal) mental illnesses².

Depressive and anxiety disorders are the most frequent psychiatric problems in pregnant and postpartum women, with a prevalence of approximately 10 and 13%, respectively². In low- and high-income countries (LMICs), the prevalence is higher, with prenatal rates of nearly 16% and postnatal rates of about 20%².

Perinatal mental morbidity can have severe repercussions for everyone involved. Perinatal mental illnesses may be related to maternal difficulties and an increased risk of poor neonatal and developmental outcomes. Also, an increase in pregnancy-related comorbidities is worrisome, which can lead to more severe outcomes².

In the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)*³, they are not recognized as a distinct clinical diagnostic entity. In *DSM-5*, postpartum psychosis is categorized as a “short psychotic illness”³. The *International Classification of Diseases 11th Revision (ICD-11)* classifies postpartum psychosis as one of the syndromes associated with pregnancy or the puerperium (beginning approximately 6 weeks after delivery) that involves significant mental and behavioral characteristics, such as delusions, hallucinations, or other psychotic symptoms⁴. Mood symptoms, including depression and/or mania, are almost always present as well. If the patient’s symptoms are consistent with the diagnostic criteria for a certain mental condition, then that disorder must also be ascribed (*ICD-11*)⁴.

The prevalence of prenatal psychosis was reported by one study to be 5 in 1,000 newborns, whereas the incidence of perinatal psychosis ranged from 0.89 to 2.6 in 1,000 women throughout the investigations^{2,5}.

In this update, the objective is to present the differential diagnosis and treatment of postpartum psychosis.

METHODS

A search was carried out to create this update using PubMed and SciELO. Two reviewers were involved. Postpartum was picked as the keyword in articles of all language types that were published in the most recent 5 years. Systematic reviews, meta-analyses, controlled trials, cohort studies, and case-control studies were the categories of articles that were included. When necessary, different kinds of items were substituted in their place. Four writers carried out the study and the comprehensive review.

RISK FACTORS AND ETIOLOGY

Postpartum psychosis is one of the few mental illnesses for which it is possible to identify a particular etiological event as the cause. Other mental conditions include schizophrenia and bipolar disorder. Even though having a child might trigger postpartum psychosis, there are still several significant questions concerning the pathophysiology of this condition that have not been answered.

Primiparity is a major predictor; consequently, a woman’s probability of developing postpartum psychosis following a later birth is significantly reduced if she did not experience any complications related to postpartum psychosis during her first delivery^{6,7}.

Clinical factors like first-time motherhood, puerperal hormone shifts, lack of sleep, and disruption of circadian rhythms are taken into consideration⁷. Other factors that are considered risk factors for PP are high environmental stress, perinatal

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mortality after birth, and congenital deformity^{7,8}. Acute mania, psychosis, anxiety, and depression are all possible side effects of postpartum immune activation⁷.

Primiparity is universally recognized as a significant variable in modeling risk factors. On the contrary, delivery problems are not always present as a PP risk all of the time⁸.

The most significant risk factors for postpartum psychosis are a previous history of psychotic episodes or a bipolar condition. It is recognized that a person has a 40–80% chance of developing bipolar illness after experiencing a fresh beginning of postpartum affective psychosis⁸. According to several research findings, people with PP are at an increased risk of developing a schizoaffective disorder or bipolar illness, and 12% of these patients acquire schizophrenia⁸.

Pregnancy and postpartum, far from being protective factors against mental disorders, can aggravate pre-existing or trigger new psychiatric disorders. During pregnancy, approximately 1 in 13 women may suffer the start of a severe depressive episode for the first time, and approximately 1 in 7 will have an episode during the peripartum period⁹.

In contrast to postpartum depression, which is unipolar, the development of postpartum psychosis does not include the effects of stressful life events or interactions with other individuals⁹.

Additional possible risk factors include a history of bipolar disorder in the patient's family, particular genetic variants of the serotonin transporter gene (5-HTT), and a genome-wide significant linkage signal at chromosome 16p13 in patients with a history of both bipolar disorder and postpartum psychosis⁷.

Postpartum psychosis hormonal studies were mostly done 20 years ago. Pregnancy raises estrogen, progesterone, and other hormones. After 35 weeks, corticotropin-releasing hormone (CRH)-binding protein decreases, increasing CRH and ACTH levels before birth. After delivery, estrogen and progesterone levels decrease considerably and recover to normal within 3 weeks. This multiple-fold reproductive hormone shift may induce postpartum psychosis. After birth, estrogen, which modulates hypothalamic dopaminergic tone, increases, causing affective psychosis⁷.

Hormonal, immunological, and circadian rhythm disruptions in genetically susceptible women induce postpartum psychosis. Postpartum psychosis may have several causes or a unifying factor⁷.

DIAGNOSIS AND DIFFERENTIAL DIAGNOSIS

Among women who had postpartum psychosis, irritability (73%), aberrant thinking content (72%), and anxiety (71%)

were the most common symptoms. Approximately one-fifth (19%) of patients also had thoughts of suicide, and approximately 8% also considered killing a newborn as a solution¹⁰. The feelings associated with delusions and hallucinations were often unpleasant. Manic (34%), depressed (41%), and atypical (25% of the sample) symptom profiles were identified using latent class analysis¹⁰. Manic symptoms and agitation indicate the manic profile, whereas depressed and anxious symptoms describe the depressive profile, and disturbances of consciousness and disorientation define the atypical profile¹⁰.

Within the first 6 weeks after giving birth, a new recurrence of the following symptoms within postpartum psychosis is classified¹. Manic or mixed episodes that may or may not be accompanied by psychotic symptoms². Depression is characterized by psychotic symptoms³. Psychosis that is not accompanied by any mood symptoms. Due to the significant influence that this variable has on the patient's prognosis, the treating clinician has to determine if the patient is experiencing the first episode of psychosis in her lifetime or whether she has a history of depression, hypomania, or mania^{3,4,7}. This needs a tough investigation since there are likely many women who have had experiences in the past that were not recognized^{3,4,7}.

Women who experience postpartum psychosis for the first time typically have one of two disease courses: isolated postpartum psychosis (vulnerability to affective psychosis only after birth) or postpartum psychosis as an expression of bipolar mood disorder with non-perinatal episodes. Both disease courses are possible in women who have experienced first-time postpartum psychosis^{5,7,8}.

Examining the patient's physical state as well as brain state is essential. Request a tough metabolic profile, urine, complete blood count, TSH, free T₄, TPO antibodies, and ammonia levels. Screening for drugs of abuse that may present with psychotic symptoms as a secondary effect of intoxication or withdrawal is an essential consideration that should not be overlooked. Imaging of the brain, study of cerebrospinal fluid, testing for limbic encephalitis, and antibody screening should all be considered when neurological symptoms are presented^{5,7,8}.

Treatment

It is important to begin by managing psychiatric emergencies such as psychomotor agitation, suicidal behavior, substance use disorder, and clinical emergencies. Specific protocols for agitation and suicidal behavior can be found in specific guidelines^{9,11-16}.

In most cases, a woman who has been diagnosed with postpartum psychosis will need inpatient psychiatric therapy to undergo diagnostic examination, safety evaluation, and

treatment commencement. The woman's significant others are identified and involved in her therapy and rehabilitation so that they can be an ally to her^{9,11-16}.

During the acute period of the disease, the medication of first choice is lithium, unless it is contraindicated for the patient (e.g., due to impaired renal function or serious side effects during prior treatment)^{9,11-16}. On the contrary, this indication is appropriate if there is a suspicion of either psychotic depression or bipolar illness. ECT can be used for schizophrenia and related disorders, bipolar disorder, depression, or induced psychosis^{9,11-16}.

When possible, antipsychotic medication should be used, although its use has risks. Acute treatment of severe manic or psychotic symptoms may benefit from additional medicines, such as benzodiazepines^{9,11-16}. Patients with severe catatonic characteristics and depression with psychotic elements may benefit from ECT since the median length of their episodes is much greater than that of postpartum mania^{9,11-16}.

Antidepressants should only be used to immediately treat postpartum depression with psychotic characteristics. The administration of a mood stabilizer or antipsychotic should always accompany the antidepressants^{9,11-16}.

Prognosis

There is a significantly higher risk of postpartum depression. New-onset affective psychosis is also rare during pregnancy and postpartum. For women with mental illness, the postpartum period increases the chance of recurrence and first-onset affective psychosis^{5,8,17}. Bipolar women are more likely to need puerperal psychiatric hospitalization. If they stop taking their medication, bipolar women may have episodes during pregnancy^{9,11-16}.

Symptoms typically occur days or weeks before mental health institution admission. Insomnia, mood fluctuations, and irritability precede mania, depression, or a mixed state in postpartum psychosis^{5,8,17}. Despite fast mood swings, postpartum psychosis symptoms are generally different from those of bipolar disease. Mood-incongruent birth fantasies are common. Disorganized behavior and obsessive thoughts about the child are also common^{9,11-16}.

Postpartum psychosis increases infanticide and suicide. Shorter acute postpartum psychosis episodes had a better prognosis^{9,11-16}. First-onset PP had a better outcome than non-postpartum affective psychosis. Some women have severe, lasting mental disorders following PP. After postpartum affective psychosis, which affects 20–50% of women^{9,11-16}, she has a 50–80% chance of another significant mental episode, frequently a bipolar one.

Prevention

An individualized postpartum relapse prevention plan should be developed in collaboration with the patient, their family, and obstetrical and pediatric care professionals. This plan should include the following components: a description of medication prophylaxis (during pregnancy and/or after delivery) based on a previous diagnosis; progressive intervention strategies to be implemented, beginning with the earliest signs of prodromal symptoms of relapse; coordination of the patient's pregnancy, labor, and pain management plan with the obstetrician^{5,16,17}.

For women who have had a single episode of postpartum psychosis, a risk-benefit analysis should be performed, and they should consider continuing their preventive medication while breastfeeding^{5,16,17}.

The medication prescribed to the patient will be determined by her previous reactions to medications. Nonetheless, lithium is the treatment with the most scientific backing. There is a lack of information available about the preventive effects of lamotrigine, olanzapine, quetiapine, and risperidone^{5,16,17}.

Health and safety of patients and children

One of the most difficult problems for obstetricians and psychiatrists is determining whether perinatal patients pose a danger to themselves or their children. It is crucial to do a risk assessment, and it is important to remember that it is always advisable to err on the side of caution; this is because the rates of both infanticide and suicide are high in severe cases^{5,9,16,17}.

Women who struggle with mental illnesses can become wonderful moms, and in most instances, they are^{5,9,16,17}. When they are going through acute episodes of their illness and have impaired insight and volition, they may be at risk of causing harm to their children, either intentionally or through negligence brought on by the mental illness^{5,9,16,17}. This can happen either because of the mother's lack of awareness of the risk she poses to her children or due to the mental illness itself^{5,9,16,17}.

When dealing with a female patient of reproductive age, the physician must always consider the possibility of the patient becoming pregnant as well as the woman's desire to breastfeed her child^{5,9,16,17}. To be more precise, the following mental symptoms provide the greatest risk to her throughout the postpartum period, and as a consequence, women who exhibit any of these symptoms may be aggressively questioned: thoughts of having an abortion, the possibility of killing an infant, mental problems and signs associated to the pregnancy itself (e.g., an intense dread of giving birth; tokophobia) and the puerperium (e.g., an acute anxiety of being unable to continue with the mother's routine); ideas or attitudes that are antagonistic against the fetus and the infant (e.g., an aggressive behavior

displayed by the pregnant woman toward her abdominal area); erroneous beliefs about the health of the mother and the postpartum period^{5,9,16,17}.

CONCLUSION

It is not only psychiatry that has trouble with mental crises during pregnancy and the peripartum period but obstetrics and other fields of medicine also encounter the same challenge.

One of the most urgent situations is postpartum psychosis, which may have serious consequences for the patient and be

challenging to treat. Even though there are still many unanswered questions, current knowledge may be utilized in clinical practice.

AUTHORS' CONTRIBUTIONS

LB: Conceptualization, Data curation, Formal Analysis, Methodology, Writing – original draft. **VSL:** Data curation, Formal Analysis, Methodology, Writing – original draft. **ALST:** Visualization, Writing – review & editing. **AGS:** Conceptualization, Supervision, Validation, Visualization, Writing – review & editing.

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