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# Understanding Postpartum Psychosis: Current Perspectives and Clinical Implications
## Running title: Postpartum Psychosis: Clinical Review

Authors
Zuzanna Tanç[1]
ORCID: https://orcid.org/0009-0009-3030-7592
Email: zuzannatanc99@gmail.com

Noor Alhuda Al-karawi[2]
ORCID: https://orcid.org/0009-0005-6647-1520
Email: nooralhudaalkarawi@gmail.com

Paulina Kędziorek[1]
ORCID: https://orcid.org/0009-0002-8126-5803
Email: paulinakedziorek.work@gmail.com

Maksymilian Czarnota[3]
ORCID: https://orcid.org/0009-0002-9322-4494
Email: bonamaks@gmail.com

Maria Wojcieszek[4]
ORCID: https://orcid.org/0009-0008-3807-7317
Email: mariajuliawojcieszek@gmail.com

Dominika Gacka[3]
ORCID: https://orcid.org/0009-0006-7444-0326
Email: dominika7988@gmail.com

Aleksandra Żołnierek[5]
ORCID: https://orcid.org/0009-0000-0396-4479
Email: aleksandra.j.zolnierek@gmail.com

Katarzyna Gondek[2]
ORCID: https://orcid.org/0009-0001-2833-8287
Email: gondekkatarzyna@gmail.com

Magdalena Fidelis[3]
ORCID: https://orcid.org/0009-0001-7356-8065
Email: magdalena.fidelis@icloud.com

Aleksandra Mączyńska[6]
ORCID: https://orcid.org/0009-0006-6887-8188
Email: a.maczynska.980@studms.ug.edu.pl

Wiktoria Szumlińska[2]
ORCID: https://orcid.org/0009-0001-5286-4228
Email: wszumlinska@gmail.com

Affiliations
[1] SPZOZ - ZZ im. Duńskiego Czerwonego Krzyża, ul. Wincentego Witosa 2, 06-200 Maków Mazowiecki, Poland
[2] PIM MSWiA w Warszawie, ul. Wołoska 137, 02-507 Warszawa, Poland
[3] Szpital Morski im. PCK, ul. Powstania Styczniowego 1, 81-519 Gdynia, Poland
[4] Medical University of Warsaw, Żwirki i Wigury 61, 02-091 Warsaw, Poland
[5] Specjalistyczna Przychodnia Lekarska dla Pracowników Wojska SPZOZ w Warszawie, Nowowiejska 31, 00-665 Warszawa, Poland
[6] LUX MED Sp. z o.o., ul. Szturmowa 2, 02-678 Warszawa, Poland

Corresponding author: Zuzanna Tanç, SPZOZ - ZZ im. Duńskiego Czerwonego Krzyża, ul. Wincentego Witosa 2, 06-200 Maków Mazowiecki, Poland. Email: zuzannatanc99@gmail.com

**Abstract**
Background: Postpartum psychosis (PPP) is a rare but severe psychiatric emergency affecting 1-2 per 1,000 births, with significant risks of maternal suicide and infanticide. Despite its clinical severity, PPP lacks formal recognition in major diagnostic classifications, complicating clinical management and legal considerations.
Objective: To synthesize current evidence on postpartum psychosis epidemiology, etiology, clinical presentation, diagnostic challenges, and evidence-based management strategies.
Methods: We conducted a comprehensive narrative review of contemporary literature on postpartum psychosis, focusing on epidemiological data, risk factor analysis, clinical manifestations, diagnostic approaches, and therapeutic interventions. Evidence was synthesized from peer-reviewed publications, clinical guidelines, and systematic reviews.
Results: PPP typically emerges within the first two weeks postpartum, with primiparity increasing risk 35-fold compared to pre-pregnancy baseline. Approximately 60% of affected women have prior psychiatric history, while 40% present de novo. The condition demonstrates complex multifactorial etiology involving hormonal dysregulation, genetic

vulnerability, sleep disruption, and psychosocial stressors. Clinical presentation includes acute onset of psychotic symptoms, mood disturbances, cognitive impairment, and behavioral changes. Diagnostic challenges stem from stigma, lack of standardized screening tools, and absence of specific diagnostic criteria. Treatment requires immediate intervention with a stepwise pharmacological approach: benzodiazepines for acute agitation, antipsychotics for psychotic symptoms, mood stabilizers for affective components, and electroconvulsive therapy for refractory cases. Lithium maintenance therapy demonstrates significant efficacy in preventing recurrence. Approximately 43.5% of women experience no subsequent psychiatric episodes, suggesting PPP may represent a distinct clinical entity rather than solely a manifestation of bipolar disorder.
Conclusions: Postpartum psychosis constitutes a psychiatric emergency requiring immediate recognition and intervention. Current evidence supports the need for standardized diagnostic criteria, enhanced screening protocols, and integrated care models combining pharmacological and psychosocial interventions. Future research should focus on biological mechanisms, predictive biomarkers, and long-term outcomes to improve prevention and treatment strategies.

Keywords: Postpartum psychosis; Perinatal mental health; Peripartum psychiatric disorders; Risk factors; Postpartum; Psychosis; Maternal mental health; Psychiatric emergency

## 1. Introduction

Postpartum psychosis (PPP) is a serious mental health condition that can affect women post-parturition, requiring immediate medical attention due to the risk it poses to both the mother and the child [1]. It is the most severe form of postpartum mental disorder, which is generally categorized into three main groups based on intensity: baby blues, postpartum depression, and postpartum psychosis [2].

The most common and least severe condition, baby blues, affects between 50% and 85% of new mothers. It typically presents with emotional instability, irritability, and mood disturbances, resolving on its own within two weeks as hormonal levels normalize [2,3]. More severe is
postpartum depression, which usually develops within six weeks after delivery and impacts 6.5% to 20% of women. This condition can persist for up to a year and is particularly prevalent among adolescent mothers and those who give birth prematurely [2].

Postpartum psychosis, although rare—occurring in approximately 1 to 2 cases per 1000 births—is the most critical form of postpartum mental disorders [4]. Symptoms often emerge

suddenly, within a few days to weeks after childbirth, and may include hallucinations, delusions, cognitive impairment, anxiety, and sleep disturbances [4,5]. In some instances, the condition can escalate to self-harm, infanticide, or maternal suicide or harm toward the infant, making it a psychiatric emergency [4]. Thorough psychiatric assessment during the postpartum period is therefore crucial, especially for individuals displaying signs of mood instability or heightened anxiety. These evaluations play a key role in identifying early indicators of psychosis or cognitive disturbances, which, if addressed swiftly, can significantly improve maternal and infant outcomes [5].

Despite its clinical significance, PPP is not formally recognized as a distinct clinical diagnosis in current psychiatric classification systems, such as the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) or the International Statistical Classification of Diseases (ICD-10). Instead, it is typically subsumed under broader categories of psychotic disorders, rather than as a standalone condition. Most women presenting with PPP receive a diagnosis of bipolar disorder, due to the frequent presence of manic or mixed affective episodes. However, recent meta-analytic data suggest that this categorization may not be universally appropriate; approximately 43.5% of women with PPP do not experience any subsequent manic or psychotic episodes beyond the postpartum period, even after an average follow-up of 16 years [7]. These findings highlight the limitations of current diagnostic frameworks and underscore the need to better define postpartum psychosis as a potentially distinct clinical entity.

This review aims to explore current clinical perspectives on postpartum psychosis, focusing on its epidemiology, risk factors, clinical presentation and diagnostic challenges. Additionally, we will examine the latest research into early detection and treatment options for affected mothers and their children.

## 2. Epidemiology

Postpartum psychosis (PPP) is a rare psychiatric condition that affects approximately 1 to 2 women per 1,000 births. Globally, estimates suggest that between 12 and 352.3 million women may experience PPP during their lifetime [2]. The condition usually begins within the first two weeks after delivery and may persist for several weeks to a few months. Symptoms can include mania, mixed mood states, confusion, anxiety, and depression. While thoughts of

self-harm and suicide are relatively common, infanticide remains rare, estimated to occur in 1–4.5% of cases [9].

The postpartum period is recognized as a time of heightened vulnerability to psychiatric illness, particularly for first-time mothers (primiparous women). A UK study found that the risk of developing a serious psychiatric condition is 22 times higher during the first month after childbirth compared to during or before pregnancy—and rises to 35 times higher for primiparous women [8].

Approximately 60% of those affected by PPP have a history of psychiatric illness, while the remainder present with no prior diagnosis [2]. Some research highlights similarities with bipolar disorder, particularly in symptom onset and presentation, but the connection remains under investigation and is not conclusive.

A longitudinal study by Perry et al. found that the postpartum period can act as a specific trigger for psychiatric relapse, especially in women with bipolar I disorder. Among those with a recent psychiatric episode, 28% required acute hospital admission within three months postpartum. However, other risk factors such as bereavement during pregnancy were not linked to increased PPP risk, pointing instead to biological and hormonal contributors [9].

Although factors like primiparity and a personal history of affective disorders are more commonly associated with PPP, the condition is not definitively classified within any single psychiatric diagnosis [8]. Ongoing research is essential to clarify its etiology and diagnostic boundaries, especially in relation to mood and psychotic disorders.

## 3. Etiology and Risk Factors

The underlying causes of postpartum psychosis (PPP) are not yet fully understood, but current evidence points to a complex interplay of biological, psychological, and possibly genetic factors. While various mechanisms have been proposed, none offer a complete or universally accepted explanation.

One of the most widely discussed biological contributors is the dramatic hormonal shift that follows childbirth. Estrogen and progesterone levels fall sharply in the days after delivery, and this sudden drop is believed to influence brain chemistry—particularly neurotransmitters such

as serotonin and dopamine [8]. However, the exact relationship between these hormonal changes and the onset of
PPP remains uncertain.

Another area of ongoing investigation is the hypothalamic-pituitary-adrenal (HPA) axis, which regulates the body's stress response. Some research suggests that dysregulation of the HPA axis in the postpartum period may increase susceptibility to psychiatric symptoms, including psychosis [1,10]. Still, this theory has yet to be definitively proven and is the subject of continued debate.

There is also evidence suggesting that PPP shares some features with bipolar disorder, including overlapping symptom patterns and timing of onset. This has led some researchers to propose that PPP may, in some cases, be a manifestation of bipolar illness triggered by childbirth. However, a significant proportion of women who experience PPP have no prior psychiatric diagnosis, indicating that the condition may not always align neatly with any existing psychiatric category [1].

While multiple biological and psychological factors appear to contribute to PPP, its precise etiology remains unclear. Further research is essential to clarify the underlying mechanisms, which could ultimately improve prediction, prevention, and treatment for those most at risk.

### 3.1 Risk Factors

Identifying risk factors for postpartum psychosis is critical for timely recognition and management of this rare but severe condition. While no single cause has been pinpointed, a growing body of evidence highlights a range of contributing factors—from genetic and hormonal influences to psychosocial stressors and medical complications. This section explores the current understanding of these risk factors and their role in predisposing individuals to PPP.

#### 3.2.1 Psychiatric and Genetic Vulnerability

The most established risk factor for PPP is a personal or family history of bipolar disorder (BD) or schizoaffective disorder. Estimates suggest that 20–30% of parous women with BD

experience PPP, and a familial history—particularly in first-degree relatives—further amplifies this risk [2,4,6]. Notably, up to 50% of women with PPP have a history of psychiatric illness, underscoring the role of preexisting mental health conditions in PPP onset [1].

Moreover, evidence from sibling studies reinforces the genetic basis of vulnerability. Full-blood siblings of women where one have experienced PPP exhibit higher rates of the disorder for the other sibling compared to the general population [2]. However, genome-wide association studies have yet
to identify a single gene of large effect. Instead, research has turned to polygenic risk scores (PRS), which aggregate small effects across many genes. These PRS for BD and schizophrenia are higher in women with PPP compared to healthy controls, indicating overlapping genetic liability [9].

Epigenetic changes, such as DNA methylation (DNAm), also play a role by influencing gene expression without altering the DNA sequence. Biomarkers related to DNAm have been found in women with postpartum psychiatric disorders, hinting at molecular-level vulnerability that may be triggered by childbirth [2].

### 3.2.2 Hormonal and Endrocrine Dysregulation

As previously mentioned, childbirth induces one of the most dramatic hormonal shifts in the human body, particularly a steep drop in estrogen and progesterone levels. This hormonal withdrawal is a suspected biological trigger in susceptible individuals. While absolute hormone levels don’t reliably differ between affected and unaffected women, abnormal sensitivity to hormonal fluctuations may underlie risk [1,4]. Case studies and small trials have explored estrogen supplementation with mixed results, suggesting more research is needed before hormonal therapies can be recommended [6].

Thyroid dysfunction is another endocrine contributor. Women with PPP have shown elevated free thyroxine (FT4), increased thyroid lobe volume, and autoimmune thyroiditis. These findings support a connection between altered thyroid function and psychiatric vulnerability postpartum [1,9].

The steroid hormone system, especially steroid sulfatase deficiency, has gained attention. In rat models, this deficiency leads to abnormal maternal behavior, and human studies have suggested it might disrupt neuroactive steroid pathways, making estrogen withdrawal more destabilizing [9].

### 3.2.3 Immune Dysregulation and Inflammatory Process

Increasing evidence points to immune system dysregulation as a potential driver of PPP. Inflammatory markers such as IL-8, altered T-cell function, and atypical natural killer (NK) cell populations have been reported [1,6,9]. These findings align with similar immune profiles observed in other psychotic disorders.

As noted above, one notable area of interest is the hypothalamic-pituitary-adrenal (HPA) axis. Women who develop PPP often exhibit elevated cortisol levels during late pregnancy and postpartum, suggesting dysregulation in the stress response system [1,9]. A particularly compelling study linked severe childhood maltreatment and elevated midday cortisol to PPP, indicating a possible role of early life stress in sensitizing the immune-endocrine axis [9].

Additionally, autoimmunity—especially autoimmune thyroiditis—has been consistently associated with PPP, lending weight to the hypothesis that a disturbed immune state postpartum may trigger psychiatric symptoms [1,6].

### 3.2.4 Sleep Disturbances and Biological Rhythms

Sleep deprivation is also considered a significant factor. The postpartum period is often marked by disrupted sleep patterns, and for women with a personal or family history of psychiatric conditions, this can potentially act as a trigger [5,8]. Women with bipolar disorder who are sensitive to sleep loss appear at heightened risk for postpartum psychosis, especially if labor is prolonged or the child is delivered at night. Sleep deprivation can trigger manic episodes and it is reported that those women are at a higher risk to be affected by PPP [2,4,6].

Moreover, disrupted circadian rhythms and reduced melatonin production in the perinatal period have been suggested as contributing biological mechanisms, although direct evidence specific to PPP is limited [1,11].

### 3.2.5 Obstetric and Perinatal Risk Factors

Childbirth itself is a profound physical and emotional event and is considered the immediate trigger for PPP. The risk is significantly higher in primiparous women. While this may be partly due to psychosocial stress, biological susceptibility likely plays a role as well [2,6].

Some studies have explored the role of complications like preeclampsia, stillbirth, and prolonged labor, with mixed findings. One registry-based study found a fivefold increase in psychiatric episodes postpartum in women with preeclampsia, though it did not distinguish PPP from other disorders [1,6,12].

### 3.2.6 Neurobiological Risk Markers

Neuroimaging has begun to reveal potential brain-based risk markers. Structural MRI studies show that women at risk for PPP may have smaller volumes in the anterior cingulate, medial hippocampus, and superior temporal areas—regions implicated in mood regulation and psychosis [13]. Functional MRI studies have demonstrated altered connectivity in the dorsolateral prefrontal cortex during tasks of working memory and emotional recognition [14]. These findings suggest that both brain structure and function may predispose certain women to PPP in response to postpartum stressors.

In rare cases, conditions such as anti-NMDA receptor encephalitis and demyelinating disorders have been misdiagnosed as PPP, emphasizing the importance of a thorough neurological evaluation in atypical presentations [15].

### 3.2.7 Psychosocial and Environmental Factors

Although PPP is often described as biologically driven, psychosocial stressors can exacerbate vulnerability. Factors such as low socioeconomic status, limited social support, and a history of trauma—particularly childhood abuse—have been linked to an increased risk of PPP in some studies [1,9]. However, not all findings are consistent; for instance, some research shows no link between acute life stress during pregnancy and PPP onset [9].

Adverse childhood experiences appear to have a more reliable correlation, particularly among women with existing BD or familial vulnerability. The contribution of these stressors is thought to occur via chronic sensitization of stress-response systems, rather than via acute events around the time of delivery [9].

#### 3.2.8. Additional Medical and Environmental Factors

Various medical and environmental exposures have been proposed, though many findings remain inconclusive. Some studies have found an association between PPP and extreme prematurity, asthma, or even environmental toxins, though these links require more robust evidence [16,17]. Pathogen exposure, including herpesviruses and toxoplasmosis, has not been conclusively linked to PPP despite interest in infection-related psychosis [9].

There is also an ongoing debate about the impact of assisted reproductive technologies such as IVF.
While one Swedish study found no association, Canadian data suggest a slightly increased risk of postpartum psychiatric disorders, including PPP, among women receiving fertility treatment [18,19].

## 4. Clinical Presentation of Postpartum Psychosis

Understanding the complex symptomatology and early clinical features of postpartum psychosis is crucial for timely diagnosis and effective intervention, given the rapid onset and potentially life-threatening nature of this condition.

The first weeks after childbirth represent a period of profound psychological vulnerability, during which PPP can emerge with alarming speed [2]. It typically begins within the first two weeks after childbirth and tend to be very sudden [6]. Initial symptoms frequently include sleep disturbances, such as an inability to sleep despite exhaustion, and rapidly progressing mood changes [1]. Anxiety, irritability, and emotional instability are often among the earliest warning signs, preceding the more dramatic psychiatric symptoms that characterize the disorder [6].

The clinical picture of PPP is notably multifaceted and "kaleidoscopic," characterized by a shifting mix of mood symptoms, psychosis, and cognitive disturbances [8]. Patients may experience manic episodes, marked by elevated or irritable mood, excessive energy, rapid speech, and restlessness [2,6]. These manic symptoms can alternate with, or be accompanied by, depressive episodes involving low mood, social withdrawal, loss of appetite, and suicidal ideation [1,2]. It is important to highlight that a significant proportion of women exhibit a mixed mood presentation, where symptoms of mania and depression coexist, further complicating diagnosis [8].

Psychotic symptoms are highly characteristic of PPP and often center around the infant. These may include hallucinations—auditory, visual, or even olfactory—alongside bizarre or persecutory delusions [1,2,6,8]. Some women develop delusions involving their child, which may result in either excessive protective behaviors or, in rare cases, risk of harm [6,8]. Furthermore, disturbances in thought processes, such as racing thoughts, agitation and disorganized speech, are often present [1,2]. States of confusion, depersonalization, and disorientation are common and can closely mimic delirium, distinguishing PPP from primary psychotic disorders like schizophrenia [6,9].

Three main clinical profiles have been identified: a manic/agitated profile, a depressive/anxious profile, and an atypical or mixed profile, each carrying different risks for maternal and infant harm [20]. Women with depressive profiles are particularly vulnerable to suicidal behavior and
infanticide, although such tragic outcomes remain rare [1,8].

Early identification of PPP is crucial. Prompt intervention can significantly improve outcomes for both mother and child, emphasizing the need for vigilance in the immediate postpartum period.

## 5. Challenges in the Diagnosis and Early Detection of Postpartum Psychosis

Identifying postpartum psychosis (PPP) presents a unique set of difficulties in clinical practice. The condition is both rare and unpredictable in its presentation, leading to frequent diagnostic uncertainty. Although significant advances have been made in understanding psychiatric illnesses overall, there remains no standardized screening method designed specifically for

PPP. Although the Edinburgh Postnatal Depression Scale (EPDS) is commonly employed to screen for postpartum depression and anxiety, it lacks the sensitivity to detect psychotic symptoms or differentiate between bipolar and unipolar mood disorders [6].

A fundamental obstacle lies in how PPP is classified—or rather, how it is not classified. Current diagnostic manuals, including the DSM-5 and ICD-10, do not list postpartum psychosis as a distinct disorder. Instead, episodes are labeled under broader categories of mood or psychotic disorders with a peripartum specifier, which complicates formal diagnosis, statistical tracking, and even legal defense in rare cases involving infanticide [1]. The absence of a specific diagnostic classification creates some limitations for both clinical management and research development in the field of postpartum psychosis.

Another important consideration is the necessity to rule out medical and neurological conditions that can mimic psychosis. Comprehensive assessments, including detailed patient histories, physical and neurological examinations, and laboratory testing, are essential to eliminate differential diagnoses such as thyroid dysfunction, electrolyte disturbances, infections, hepatic encephalopathy, and postpartum stroke [1,2]. Despite these recommendations, no globally accepted laboratory protocol exists specifically for PPP, adding another layer of variability to the diagnostic process.

The fluctuating nature of PPP symptoms adds further complexity. Patients often experience periods of apparent normality between severe psychiatric episodes, making it easy for early warning signs—such as insomnia, irritability, or mood swings—to be missed by both clinicians and family members [5]. In addition, stigma surrounding psychiatric symptoms during the postpartum period may lead some women to conceal their experiences, delaying critical intervention.

While promising research is underway, including genetic and neuroimaging studies, the absence of
reliable biomarkers means that PPP remains a diagnosis grounded primarily in clinical observation and exclusion of other conditions. Moving forward, improved diagnostic criteria, expanded awareness among healthcare providers, and the development of targeted screening tools will be essential in overcoming these longstanding challenges.

## 5.1 Differential Diagnosis

Given the severity of postpartum psychosis (PPP) and the urgency of appropriate treatment, achieving an accurate differential diagnosis is essential. Numerous psychiatric and medical conditions can mimic its presentation, making early clinical judgment particularly challenging.

### 5.1.1 Postpartum Depression and Postpartum Obsessive-Compulsive Disorder

The most common conditions to differentiate from PPP are postpartum depression (PPD) and postpartum obsessive-compulsive disorder (OCD). While PPD often presents with emotional distress, fatigue, and anhedonia, it typically lacks the hallmark psychotic symptoms seen in PPP, such as hallucinations or delusions [5,6]. Postpartum OCD, although sometimes severe, is characterized by intrusive, ego-dystonic thoughts rather than true psychosis. These features make careful clinical assessment crucial to avoid misdiagnosis [5].

### 5.1.2 Medical Conditions Mimicking Psychosis

While numerous medical conditions can mimic psychiatric illness after childbirth, their clinical presentation often differs subtly from that of postpartum psychosis (PPP). For example, thyroid dysfunction—particularly postpartum thyroiditis—may lead to mood instability and cognitive slowing but typically lacks the psychotic features central to PPP [1,5]. Similarly, electrolyte disturbances, systemic infections, hepatic encephalopathy, and postpartum strokes can cause delirium-like confusion or altered mental status [1,2]. These organic conditions often present with fluctuating levels of consciousness, fever, or neurological deficits—red flags that should prompt thorough medical investigation. In clinical practice, recognizing these patterns is crucial, as misdiagnosing an underlying medical issue as a primary psychiatric disorder could delay
appropriate treatment and worsen outcomes. Thus, comprehensive physical examinations, targeted laboratory workups, and, when indicated, brain imaging are indispensable components of the diagnostic process when assessing acute postpartum psychiatric symptoms.

### 5.1.3 Autoimmune and Neurological Disorders

Autoimmune encephalitis, especially anti-NMDA receptor encephalitis, can closely mimic the acute onset of psychosis in the postpartum period. Because standard laboratory panels may not detect this disorder, cerebrospinal fluid analysis and brain imaging may be required if atypical neurological symptoms emerge [5,15]. Other neurological conditions, including demyelinating disorders like multiple sclerosis, should also be considered in complex or atypical cases [1].

### 5.1.4 Primary Psychiatric Disorders

Finally, it is important to distinguish PPP from primary psychiatric illnesses such as bipolar disorder and schizophrenia. PPP is typically marked by an abrupt onset within days after childbirth, often following early symptoms like insomnia and irritability [4,5]. In contrast, schizophrenia and bipolar disorder usually have a more gradual onset, with symptom patterns extending well beyond the immediate postpartum period. Recognizing this difference in timing is vital for accurate diagnosis and treatment planning.

## 5.2 Strategies for Early Detection of Postpartum Psychosis

While PPP remains challenging to detect early, several practical steps can improve identification today, even in the absence of dedicated screening tools. Given that PPP often manifests within the first two weeks after delivery, close monitoring during this critical window is essential. Healthcare providers should proactively educate families about early warning signs—such as severe insomnia, mood swings, agitation, and unusual thoughts—as family members are often the first to observe behavioral changes.

Routine postpartum follow-up visits could also be enhanced by integrating brief psychiatric screening questions focusing specifically on psychotic features, not just mood or anxiety symptoms.

Although instruments like the Edinburgh Postnatal Depression Scale (EPDS) are not designed to detect psychosis, adding targeted questions regarding hallucinations, delusional beliefs, or severe confusion could increase the sensitivity of early evaluations.

In addition, establishing risk profiles based on known biological and clinical factors may aid proactive identification. Women with a personal or family history of bipolar disorder, prior postpartum psychiatric episodes, or significant peripartum sleep disruption should be recognized as high-risk and receive closer postpartum surveillance.

Looking ahead, emerging research into genetic vulnerability and neuroimaging biomarkers offers hope for more precise early detection strategies [4]. However, until such tools are validated, the most effective approach remains clinical vigilance, enhanced education of both healthcare teams and families, and the prompt escalation of care at the first signs of psychiatric deterioration.

By adopting a more proactive and systematic approach, early detection of PPP can be significantly improved, reducing the risk of severe maternal and infant outcomes.

## 6. Management and Treatment Approaches for PPP

Postpartum psychosis represents a psychiatric emergency that demands rapid, coordinated intervention. Management strategies are multifaceted, combining pharmacological treatments, psychiatric hospitalization, psychological support, and long-term rehabilitation to optimize outcomes for both mother and infant.

### 6.1 Inpatient Hospitalization

The acute management of PPP requires inpatient psychiatric hospitalization due to the elevated risks of suicide and infanticide [5,6,9]. Ideally, care should be delivered in specialized Mother-Baby Units (MBUs), which allow mothers to remain with their infants during treatment, strengthening the mother-infant bond and reducing long-term attachment disruption [5,6]. While MBUs are common in countries like the United Kingdom and Australia, their absence in countries like United States often necessitates mother-infant separation, complicating care delivery [6,9]. Regardless of setting, immediate psychiatric consultation is crucial when PPP is suspected, with a strong emphasis on safety planning for both mother and child [5].

### 6.2 Pharmacological Interventions

Pharmacotherapy forms the backbone of PPP management, with lithium, second-generation antipsychotics (SGAs), and benzodiazepines forming the primary pillars [1,2,5,6,9].

#### 6.2.1 Lithium

Lithium remains the most robustly supported pharmacological agent for both acute treatment and relapse prevention in PPP [1,2,5,6,9]. Its mechanisms include modulation of dopaminergic and glutamatergic pathways and enhancement of inhibitory GABA neurotransmission [21,22]. However, lithium therapy demands careful monitoring, with recommended pre-treatment evaluations including renal and thyroid function tests, and electrocardiography in patients with cardiac risk factors [23,24]. Special consideration is needed for breastfeeding mothers, as lithium passes into breast milk in significant quantities [25,26].

#### 6.2.2 Antipsychotics

Second-generation antipsychotics (SGAs) such as olanzapine, quetiapine, and risperidone are preferred over first-generation agents like haloperidol due to their lower risk of extrapyramidal side effects [27]. SGAs are often utilized as monotherapy or in combination with lithium when the latter is contraindicated [2,5]. Olanzapine and quetiapine are particularly favored for women who plan to breastfeed, given their relatively favorable lactation safety profiles [28].

#### 6.2.3 Benzodiazepines and Hypnotics

Short-acting benzodiazepines such as lorazepam are employed to address the common symptom of severe insomnia, often serving as the first step in a staged treatment algorithm [29]. Zopiclone, a non-benzodiazepine hypnotic, may also be used, though careful infant monitoring is required if the mother is breastfeeding [2,30].

### 6.2.4 Antidepressants

Selective serotonin reuptake inhibitors (SSRIs) and norepinephrine reuptake inhibitors (SNRIs) have been proposed as adjunctive treatments, particularly when depressive symptoms predominate [31]. However, their use must be carefully considered given the risk of exacerbating mood instability in patients with bipolar features [32].

### 6.2.5 Novel treatments

While brexanolone, a neuroactive steroid, has gained approval for postpartum depression, its role in PPP remains unproven [9]. Similarly, emerging therapies targeting hormonal modulation, such as estrogen supplementation, require further investigation before widespread clinical application [1].

### 6.2.6 Electroconvulsive Therapy (ECT)

Electroconvulsive therapy (ECT) is a highly effective intervention for cases refractory to pharmacological treatment, or when rapid clinical stabilization is needed due to severe suicidality, catatonia, or nutritional compromise [5,33]. Evidence suggests that response rates to ECT are particularly favorable in the postpartum period, with remission rates exceeding 80% in some cohorts [5,34]. Despite potential cognitive side effects, such as transient memory loss, ECT remains a life-saving option when other treatments fail.

### 6.2.7 Treatment Algorithms

Stepwise treatment protocols have been proposed to optimize outcomes. A model developed in the Netherlands follows a staged approach: (1) benzodiazepines for initial symptom management, (2) addition of antipsychotics if no remission, (3) lithium initiation after two weeks if needed, and (4) ECT for treatment-resistant cases [35]. This structured strategy has demonstrated high rates of remission, with 80% of patients maintaining stability at nine months postpartum [34].

### 6.2.8 Psychosocial Interventions

Beyond pharmacology, psychosocial support is critical to comprehensive PPP management. Psychoeducation for family members enhances early symptom recognition and supports adherence
to treatment plans [5]. Therapeutic interventions such as cognitive-behavioral therapy (CBT), mindfulness-based cognitive therapy (MBCT), interpersonal therapy (IPT), and positive psychosis psychotherapy are valuable adjuncts [1,2,5]. These approaches aim not only to alleviate psychiatric symptoms but also to rebuild maternal confidence, improve family functioning, and foster healthy mother-infant interactions [5].

### 6.2.9 Considerations in Breastfeeding

Medication safety during lactation must be carefully weighed. While some SGAs and mood stabilizers are compatible with breastfeeding under close monitoring, others, such as clozapine, are contraindicated [35]. For women who cannot safely breastfeed while on psychotropic medication, strategies to suppress lactation, such as the use of cabergoline, may be considered, although caution is advised due to potential psychiatric side effects [1].

### 6.2.10 Relapse Prevention

Given the high recurrence risk of PPP—over 50% in some studies—prophylactic strategies are essential [1,6]. Lithium maintenance therapy across the postpartum period significantly reduces relapse rates [35]. Close postpartum monitoring and the development of individualized long-term management plans are critical to sustaining recovery.

### 6.2.11 Safety and Risk Assessment

Continuous assessment of maternal and infant safety is paramount throughout treatment. Women with active psychosis may inadvertently or intentionally harm themselves or their infants, necessitating a low threshold for inpatient care and constant psychiatric reassessment. Collaboration between psychiatry, obstetrics, pediatrics, and social services ensures a holistic approach to safeguarding both mother and child.

## 7. Summary and discussion

Postpartum psychosis presents one of the most acute psychiatric emergencies in the field of reproductive psychiatry. Unlike more common perinatal mood disorders, its abrupt onset, severity, and potential for tragic outcomes demand not only clinical precision but also systemic preparedness. As our review shows, the condition does not easily conform to existing diagnostic frameworks, complicating timely intervention and long-term management.

The evidence suggests that while biological predispositions—particularly those linked to bipolar spectrum disorders—play a central role, hormonal shifts, immune dysregulation, and sleep disturbances act as potent triggers. Yet, the unpredictable nature of PPP underscores that no single pathway explains all cases.

What emerges is the critical importance of a proactive, tiered treatment model that includes early identification, family engagement, safe pharmacologic interventions, and specialized inpatient care when necessary. Lithium and ECT remain pillars of effective treatment, while considerations around breastfeeding and relapse prevention require nuanced, individualized planning.

Looking ahead, meaningful progress will hinge on redefining PPP in psychiatric nomenclature, expanding access to mother-baby units, and educating frontline providers to recognize early symptoms. The perinatal window offers both vulnerability and opportunity: with the right systems in place, PPP can be not just treated, but anticipated and prevented.

Disclosure

Author Contributions

Conceptualization: Zuzanna Tanç

Methodology: Noor Alhuda Al-karawi

Software: Paulina Kędziorek

Formal analysis: Magdalena Fidelis, Katarzyna Gondek

Investigation: Zuzanna Tanç, Paulina Kędziorek

Resources: Maksymilian Czarnota, Dominika Gacka

Check: Maria Wojcieszek, Aleksandra Mączyńska

Writing -rough preparation: Aleksandra Żołnierek

Writing -review and editing: Magdalena Fidelis

Supervision: Maria Wojcieszek, Noor Alhuda Al-karawi

Visualization: Wiktoria Szumlińska

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