Anatomy of an Illness – Part 1: Postpartum Depression

Shreeja S. Vachhani

School of Social Work, University of Michigan

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Dr. Lydia Li

Health Problem Description

Postpartum depression (PPD), also known as postnatal depression, is a specific type of depression affecting new mothers, typically experienced within the initial weeks or months following childbirth (Mayo Clinic, 2022). PPD is different from the more transient and less severe "baby blues," which are characterized by symptoms such as worry, sadness, and excessive crying commonly experienced after childbirth (Cleveland Clinic, 2022). PPD falls within the broader category of perinatal depression, which includes depressive episodes occurring during pregnancy and up to a year postpartum (Mayo Clinic, 2022). In the United States, the incidence and prevalence of PPD are significant, with approximately one in eight women who have recently given birth experiencing PPD symptoms (Center for Disease Control and Prevention, 2023). Based on data from 2018, the average prevalence rate of PPD was 13.2% (Epperson, 2020). Mortality rates associated with PPD are relatively low and often not readily accessible in common data sources. However, an interesting trend emerged during the early stages of the COVID-19 pandemic, where approximately a third of new mothers experienced PPD, potentially tripling pre-pandemic levels (Mostafavi & Bailey, 2022).

Health disparities related to PPD are evident across different demographic groups in the United States. For instance, Latinas are twice as likely to be diagnosed with PPD compared to White women, with prevalence rates of 7.8% and 3.3%, respectively (Liu & Tronick, 2013). Moreover, prevalence rates are significantly higher among Hispanics, Blacks, and Asian/Pacific Islanders, with these groups also being the least likely to receive a diagnosis or subsequent treatment (Iyer, 2021). Research indicates that African-American and Hispanic women frequently report postpartum depressive symptoms at higher rates compared to their White counterparts, with rates as high as 43.9% and 46.8%, respectively (Howell et al., 2005).

Alarmingly, many of these racial and ethnic disparities persist even after controlling for socioeconomic factors such as maternal education, income, and marital status (Sandoiu, 2020). Based on these data, it can be inferred that those most in need of postpartum mental health care are often the least likely to receive it.

Regarding the age of onset for PPD, there appears to be no specific age range associated with its occurrence. Mothers may develop PPD at various times within the first year after childbirth, with some experiencing symptoms shortly after delivery, while others experiencing them later in the postpartum period (Mayo Clinic, 2022). This variability signifies the complex nature of PPD and emphasizes the importance of tailored interventions and support systems for affected individuals. The etiology of PPD is multifaceted given that several factors contribute to its development. One significant factor is the rapid decline in hormone levels, particularly estrogen and progesterone, following childbirth (Mayo Clinic, 2022). These hormonal fluctuations can trigger chemical changes in the brain, leading to mood swings and depressive symptoms. Additionally, the social and psychological adjustments associated with motherhood, such as physical changes in the body, sleep deprivation, concerns about parenting, and shifts in relationships, can exacerbate feelings of overwhelm and distress (Cleveland Clinic, 2022). Furthermore, having a family history of postpartum depression increases an individual's susceptibility to experiencing PPD (Mayo Clinic, 2022).

Various risk factors are associated with PPD, highlighting the complex interplay of biological, environmental, and psychosocial influences. Some of these risk factors include violence and abuse, gestational diabetes, and the mode of delivery, with cesarean sections carrying increased stress, particularly if unplanned (Zhao & Zhang, 2020). Maternal depression, antenatal depression, and lack of social support during the postpartum period also heighten the

risk of developing PPD (Hutchens & Kearney, 2020). Additionally, factors such as preterm birth, high levels of life stress, and dissatisfaction in marital or partner relationships increase the risk for PPD (Mayo Clinic, 2022).

PPD manifests through a range of physical and psychological symptoms that can significantly impact maternal well-being and functioning. Common symptoms include depressed mood or severe mood swings, difficulty bonding with the infant, disturbances in sleep patterns, excessive crying, fatigue, feelings of worthlessness or guilt, and thoughts of harming oneself or the baby (Mayo Clinic, 2022). Anxiety, panic attacks, changes in appetite, and hopelessness are also prevalent among individuals experiencing PPD (Mayo Clinic, 2022). The physiological manifestations of PPD involve complex interactions among various body systems and organs. While research in this area is limited, hormonal changes, particularly the drop in estrogen and progesterone levels, are implicated in the pathophysiology of PPD (Skalkidou et al., 2012). Hypoactivation of the hypothalamic-pituitary-adrenal (HPA) axis, dysregulation of circadian rhythms, and alterations in neurotransmitter levels, such as serotonin, further lead to the development of depressive symptoms (Glynn et al., 2013). Moreover, dysfunction in the immune system and thyroid function, characterized by increased inflammatory responses, is noted in individuals with PPD, highlighting the complex relationship between biological processes and mental health outcomes (Skalkidou et al., 2012).

Screening procedures play a crucial role in identifying PPD and facilitating timely intervention. The Edinburgh Postnatal Depression Scale (EPDS) is among the most widely used screening tools, using a self-reported questionnaire to assess mood and emotional well-being during the postpartum period (Sit & Wisner, 2009). Healthcare providers often administer the EPDS during routine postpartum visits due to its simplicity and effectiveness (Sit & Wisner,

2009). Additionally, other screening tools such as the Beck Depression Inventory (BDI), the Patient Health Questionnaire (PHQ-9), and the Postpartum Depression Screening Scale (PDSS) are used to conduct comprehensive assessments of PPD symptoms and severity (Sit & Wisner, 2009). Diagnostic evaluation of PPD typically involves a multifaceted approach conducted by healthcare professionals. This process includes clinical interviews, adherence to diagnostic criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders (DSM), and the utilization of screening tools like the EPDS (Sit & Wisner, 2009). Furthermore, physical examinations and laboratory tests may be conducted to rule out any underlying medical conditions contributing to depressive symptoms (Cleveland Clinic, 2022). Assessment of the mother's functioning across various domains of her life is integral to the diagnostic process, with impairment in functioning serving as a fundamental criterion for diagnosing PPD (Sit & Wisner, 2009). However, the diagnostic process for PPD can be emotionally challenging for individuals experiencing this condition. The acknowledgment and discussion of symptoms may evoke feelings of sadness, guilt, and anxiety. Moreover, stigma and shame surrounding mental health issues may prevent individuals from seeking help and disclosing personal information to healthcare professionals. Cultural and language barriers further complicate the diagnostic process, hindering effective communication and access to culturally sensitive care.

Social determinants of health, stigma, and bias significantly impact the diagnosis and treatment of PPD, particularly among marginalized communities. For example, research indicates that Black women are 57% less likely to initiate treatment for PPD, and Latinas are 41% less likely than White women to seek treatment (Sandoiu, 2020). Structural factors, such as neighborhood disadvantage and lack of access to employment with insurance coverage for behavioral health, contribute to unfair treatment outcomes (Greene, 2023; Kozhimannil et al.,

2011; Onyewuenyi et al., 2023). Additionally, provider bias may lead to misinterpretation of symptoms, particularly among non-White women, exacerbating disparities in care (Sandoiu, 2020). Limited access to insurance coverage further heightens these challenges, with Black women disproportionately covered by Medicaid unable to receive continuity of care due to lack of postpartum coverage (Sandoiu, 2020). These disparities point to the urgent need for targeted interventions and policy changes aimed at addressing social determinants of health and promoting equitable access to mental health care for all individuals affected by this condition.

Treatment and Interventions and Impact

Standard treatments for PPD typically involve a combination of psychotherapy and medication. Psychotherapy options, such as Cognitive Behavioral Therapy (CBT) and Interpersonal Psychotherapy (IPT), are commonly used due to their effectiveness in addressing depressive symptoms and promoting emotional well-being (Kroska & Stowe, 2020). Additionally, supportive counseling and listening visits provide valuable support for individuals navigating the challenges of PPD (Kroska & Stowe, 2020). In terms of medication, selective serotonin reuptake inhibitors (SSRIs) are often prescribed as first-line pharmacological treatments due to their low toxicity risk and relatively few side effects (Patatanian & Nguyen, 2022). Recently, the FDA approved allopregnanolone (Brexanolone) as a treatment for moderate to severe PPD, demonstrating rapid reductions in depressive symptoms (Patatanian & Nguyen, 2022). Potential side effects and secondary losses associated with PPD treatments should also be considered. For instance, Brexanolone may lead to adverse effects such as dizziness, excessive sleepiness, and nausea, with more serious consequences including loss of consciousness and central nervous system depression (Powell et al., 2020). Despite these risks, Brexanolone is recommended for its considerable efficacy in rapidly reducing depressive symptoms (in 60

hours) (Powell et al., 2020). Studies also indicate that CBT, delivered through various modalities such as online/mobile-app platforms or peer-delivered sessions, leads to significant reductions in depressive symptoms among women with PPD (Amani et al., 2021; Roman et al., 2020).

Prognosis for individuals with PPD varies based on multiple factors, including the severity of symptoms, timing of intervention, availability of support networks, and response to treatment (Agrawal et al., 2022). Studies suggest that early detection, referral, and psychoeducation can lead to better prognoses for individuals with PPD (Agrawal et al., 2022). However, females with PPD may also be at increased risk of developing new-onset psychiatric diagnoses in subsequent years, potentially leading to functional impairment and requiring long-term treatment (Bloch et al., 2024). Certain factors may increase the risks of PPD exacerbation, progression, and recurrence. Previous history of depression, childbirth trauma, acute stress during pregnancy, and distress related to events such as the COVID-19 pandemic are some factors associated with heightened risk of PPD (Johansen et al., 2020; Kornfield et al., 2021; Waller et al., 2022). Additionally, lack of social support, sleep deprivation, and barriers to accessing mental health care contribute to the exacerbation of PPD symptoms (Cleveland Clinic, 2022).

The costs associated with PPD treatment extend beyond financial considerations, encompassing physical, emotional, and societal impacts. Brexanolone treatment, for example, costs approximately $34,000, excluding hospital stay costs (Ali et al., 2021). Moreover, the stigma surrounding mental health conditions and the strict administration requirements of Brexanolone contribute to emotional costs for individuals seeking treatment (Powell et al., 2020). Physically, the continuous infusion of Brexanolone can be challenging for mothers, requiring them to spend significant time away from their newborns, affecting bonding and

caregiving dynamics (Powell et al., 2020). This treatment burden is particularly felt by low and middle-income communities, where access to resources and support may be limited (Ali et al., 2021). Additionally, indirect costs related to PPD, such as time spent in healthcare systems and potential productivity losses from missed workdays, further heighten the financial burden (Epperson et al., 2020). On the other hand, psychotherapy or counseling sessions, while beneficial, may accumulate costs over time, especially if insurance coverage is limited. Furthermore, the emotional toll of PPD treatment should be accounted for. Individuals may internalize stigma and negative beliefs about their mental illness, leading to feelings of shame and self-blame (Powell et al., 2020). Pharmacological treatments may also impact maternal bonding and caregiving, triggering feelings of inadequacy and guilt. Complementary and alternative medicine (CAM) approaches offer additional avenues for PPD treatment. Chinese herbal medicine (CHM) and certain herbs and dietary supplements (e.g., St. John's wort and Kava) have shown promise in managing depressive symptoms (Xie et al., 2024). Moreover, non-clinical interventions such as state-based and national access programs provide valuable support for both clinicians and mothers (Moore Simas et al., 2023). However, CAM approaches lack rigorous scientific evidence surrounding their effectiveness, highlighting the need for further research in this area.

In making treatment choices for PPD, various factors must be considered, including individual preferences, evidence-based practices, and access to resources. Ethical considerations, such as promoting autonomy and minimizing harm, are key in treatment decision-making. Cultural competence and diversity issues also play a crucial role in that healthcare providers should be sensitive to cultural factors, beliefs, and values when discussing treatment options with patients.

Reflection

Reflecting on my initial thoughts about PPD as I began my research journey, I realized how my understanding was shaped by the experiences and discussions within my family. Growing up with parents who are gynecologists in India, I had heard frequent mentions of PPD, but I had not comprehended the full complexity of the illness. At the time, I viewed it as a commonly occurring condition for women after childbirth, primarily associated with mood disturbances. Moreover, I assumed that the openness surrounding discussions about PPD in the United States reflected less stigma and more awareness around the condition compared to what I observed in Indian communities. However, as I delved deeper into my research and gained a better understanding of PPD, my perspective changed significantly. Learning about the diverse factors contributing to PPD (e.g., biological and environmental influences) highlighted the complex nature of the illness. I became aware of the differences in symptom intensity, duration, and onset time, recognizing that PPD can manifest differently for different individuals. Also understanding that treatment options for PPD are similar to those for depression broadened my perspective, although I recognized the common challenges such as stigma, cost, and access to mental health care.

One of my primary concerns about PPD stemmed from the realization that many women, particularly those from marginalized communities, may go undiagnosed and untreated for PPD due to various barriers. I realized that there is a need for more accessible and culturally sensitive treatment options. While I am hopeful for the increased utilization of CAM approaches, I acknowledged the need for further research to address their limitations. As I navigated through my research, my questions expanded to thinking about the cultural differences surrounding PPD presentation and treatment effectiveness in collectivistic versus individualistic cultures. This is

because in my research, the role of social support and stigma was quite evident, warranting a deeper exploration of PPD recovery within diverse cultural contexts. As I continue to think about these questions and concerns, I recognize the importance of open dialogue and advocating for comprehensive and inclusive screening and treatment approaches to support individuals affected by PPD.

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