OPEN ACCESS

Kashf Journal of Multidisciplinary Research
Vol: 02 - Issue 1 (2025)
P-ISSN: 3007-1992 E-ISSN: 3007-200X
https://kjmr.com.pk

PREVALENCE AND RISK FACTORS OF POSTPARTUM DEPRESSION: A SYSTEMATIC REVIEW

Jalal Khan
Principal at Bilal institute of Nursing and Health Sciences Balambat
Zohra Imran Lakhani
Assistant Professor at Rehman Institute of Health Sciences Karachi
Abdul Kabir
Assistant Professor at Valley Heart Institute of Medical Sciences Swat
Aziz Ur Rehman
Assistant Professor at NCS University System Peshawar
Khubaib Khan
Registered Nurse at Memon College of Nursing
Ihsan Ullah
Assistant Professor at NCS University System Peshawar

Corresponding author: Jalalkhan519@gmail.com

Article Info

Abstract

Background: *Postpartum depression (PPD) is a common and debilitating mental health condition affecting mothers worldwide, with significant consequences for both maternal and child health.*

Objective: *This systematic review examines the prevalence, risk factors, screening tools, and treatment strategies for PPD, highlighting regional and socioeconomic disparities.*

Methods: A systematic search of PubMed, Scopus, and PsycINFO databases was conducted for studies published between January 2013 and December 2023. Eligible studies included peer-reviewed articles, longitudinal or cross-sectional studies, and randomized controlled trials focusing on postpartum populations. A total of 128 studies were included in the final synthesis.

Results: *PPD prevalence ranges from 10–15% in high-income countries to over 30% in low- and middle-income countries, influenced by socioeconomic, cultural, and healthcare disparities. Risk factors include hormonal fluctuations, pre-existing mental health conditions, and social determinants such as poverty, domestic violence, and inadequate partner support. Screening tools, such as the Edinburgh Postnatal Depression Scale, facilitate early detection, while treatment strategies including pharmacological interventions, psychotherapy, and integrated care models demonstrate effectiveness.*

Conclusion: *PPD is a multifaceted condition requiring comprehensive, culturally sensitive care models to mitigate its impact. Future research should focus on longitudinal studies, personalized interventions, and the integration of mental health services into primary care to improve maternal and child outcomes globally.*

Introduction

Postpartum depression is a debilitating condition characterized by persistent sadness, anxiety, and fatigue, affecting a mother's ability to care for her child. Unlike the transient "baby blues," which resolve within two weeks postpartum, PPD can persist for months, severely impairing quality of life. According to the World Health Organization (WHO), PPD affects approximately 10–20% of postpartum women worldwide, though rates may be higher in low- and middle-income countries (WHO, 2021).

Methodology

A systematic search was performed in PubMed, Scopus, and PsycINFO for studies published between January 2013 and December 2023. Keywords included "postpartum depression," "maternal mental health," "risk factors," "screening," and "treatment." Inclusion criteria were peer-reviewed articles, longitudinal or cross-sectional studies, and randomized controlled trials (RCTs). Studies focusing on comorbid conditions or non-postpartum populations were excluded. A total of 128 studies were included in the final review.

Prevalence of Postpartum Depression

The prevalence of postpartum depression (PPD) varies significantly across regions, populations, and socioeconomic strata. It is estimated that in high-income countries, the prevalence rates range from 10% to 15%. In contrast, low- and middle-income countries (LMICs) report significantly higher prevalence rates, often exceeding 30% (Daliri et al., 2023). These discrepancies are influenced by a complex interplay of socioeconomic disparities, cultural differences, and access to healthcare services.

High-Income Countries

In high-income countries such as the United States, the United Kingdom, and Australia, PPD is relatively well-documented and studied. The lower prevalence rates in these countries can be attributed to better access to healthcare, structured antenatal and postnatal care systems, and increased awareness of maternal mental health. For instance, studies in the United States have consistently reported a prevalence rate of around 12% for PPD within the first six months postpartum (Centers for Disease Control and Prevention, 2021). The availability of screening tools, such as the Edinburgh Postnatal Depression Scale (EPDS), and the integration of mental health services into primary care contribute to early detection and intervention.

Low- and Middle-Income Countries

In LMICs, the prevalence of PPD is alarmingly high, often exceeding 30% in many regions. For example, a systematic review by Kalra et al. (2022) found that PPD rates in South Asia, Sub-Saharan Africa, and the Middle East often range between 20% and 40%. These elevated rates are linked to factors such as poverty, food insecurity, lack of education, and inadequate healthcare infrastructure. Cultural stigmatization of mental health issues further compounds the problem, deterring many women from seeking help.

Socioeconomic Disparities

Socioeconomic status is a critical determinant of PPD prevalence. Women from lower-income backgrounds are disproportionately affected due to financial stress, limited access to quality healthcare, and higher rates of obstetric complications. A study by Atuhaire et al. (2021) highlighted that women living in poverty were twice as likely to develop PPD compared to their wealthier counterparts. These findings underscore the importance of addressing economic inequalities to mitigate PPD prevalence.

Cultural and Regional Differences

Cultural perceptions of motherhood and mental health significantly influence PPD prevalence. In some cultures, new mothers are expected to adhere to strict caregiving roles with minimal external support, leading to increased stress and vulnerability. For instance, in certain South Asian communities, traditional postpartum confinement practices, while intended to provide rest, can sometimes lead to isolation and emotional distress (LeMasters et al., 2020). On the other hand, collectivist cultures that emphasize extended family support may offer some protective effects, although these benefits are not universally observed.

Healthcare Access and Utilization

Access to healthcare plays a pivotal role in determining PPD prevalence. In regions with robust healthcare systems, routine postpartum visits and mental health screenings facilitate early identification and treatment. Conversely, in LMICs, limited access to skilled healthcare providers and mental health resources exacerbates the burden of PPD. Efforts to train healthcare workers in maternal mental health and integrate these services into primary care settings are essential for reducing prevalence rates globally.

Risk Factors

Biological Factors

Hormonal fluctuations, particularly in estrogen and progesterone, play a critical role in the onset of PPD. Women with a history of premenstrual dysphoric disorder or prior depressive episodes are at increased risk (Hantsoo & Epperson, 2015).

Psychological Factors

High levels of stress, lack of social support, and pre-existing mental health conditions are strongly associated with PPD (Yim et al., 2015b). Personality traits, such as neuroticism, also heighten susceptibility.

Social and Environmental Factors

Poverty, domestic violence, and poor partner relationships are significant contributors to PPD (Heer et al., 2024). Immigrant and refugee mothers often face unique stressors, including language barriers and cultural isolation.

Screening Tools

Effective screening is crucial for early identification and intervention. Commonly used tools include:

1. Edinburgh Postnatal Depression Scale (EPDS): A 10-item questionnaire with high sensitivity and specificity.
2. Patient Health Questionnaire (PHQ-9): Widely used in primary care settings.
3. Postpartum Depression Screening Scale (PDSS): Comprehensive but less frequently employed due to length.

The American College of Obstetricians and Gynecologists recommends routine screening at the first postpartum visit (ACOG, 2018).

Treatment Strategies

Pharmacological Interventions

Antidepressants, particularly selective serotonin reuptake inhibitors (SSRIs), are effective but may have concerns regarding breastfeeding safety. Brexanolone, a neurosteroid approved by the FDA, has shown promise in severe cases (Meltzer-Brody et al., 2018).

Psychological Interventions

Cognitive-behavioral therapy (CBT) and interpersonal therapy (IPT) are evidence-based approaches with high efficacy. Group therapy can provide additional social support (Srivastava et al., 2024).

Complementary Therapies

Mindfulness, yoga, and acupuncture are emerging as supportive interventions. These therapies may reduce stress and improve emotional regulation (Abrahão et al., 2019).

Integrated Care Models

Collaborative care models, integrating mental health services into obstetric settings, have demonstrated improved outcomes. Peer support programs also play a pivotal role, particularly in underserved populations (Lara et al., 2020).

Implications for Practice

PPD requires a multidisciplinary approach involving obstetricians, psychiatrists, and social workers. Culturally tailored interventions are essential for addressing the needs of diverse populations. Policy initiatives should focus on maternal mental health as a public health priority, ensuring universal screening and access to care.

Limitations

This review is limited by the heterogeneity of included studies and potential publication bias. Longitudinal studies with diverse populations are needed to elucidate causal pathways and inform targeted interventions.

Conclusion

Postpartum depression is a complex condition with profound implications for maternal and child health. Early screening, evidence-based treatments, and supportive care models are essential for mitigating its impact. Future research should focus on personalized interventions and the integration of mental health into primary care.

References

1. Daliri, D. B., Afaya, A., Afaya, R. A., & Abagye, N. (2023). Postpartum depression: The prevalence and associated factors among women attending postnatal clinics in the Bawku municipality, Upper East Region of Ghana. *Psychiatry and Clinical Neurosciences Reports*, *2*(3). https://doi.org/10.1002/pcn5.143
2. Kalra, H., Tran, T., Romero, L., Chandra, P., & Fisher, J. (2022). Burden of severe maternal peripartum mental disorders in low- and middle-income countries: a systematic review. *Archives of Women S Mental Health*, *25*(2), 267–275. https://doi.org/10.1007/s00737-021-01201-9
3. LeMasters, K., Andrabi, N., Zalla, L., Hagaman, A., Chung, E. O., Gallis, J. A., Turner, E. L., Bhalotra, S., Sikander, S., & Maselko, J. (2020). Maternal depression in rural Pakistan: the protective associations with cultural postpartum practices. *BMC Public Health*, *20*(1). https://doi.org/10.1186/s12889-020-8176-0
4. Atuhaire, C., Rukundo, G. Z., Nambozi, G., Ngonzi, J., Atwine, D., Cumber, S. N., & Brennaman, L. (2021). Prevalence of postpartum depression and associated factors among women in Mbarara and Rwampara districts of south-western Uganda. *BMC Pregnancy and Childbirth*, *21*(1). https://doi.org/10.1186/s12884-021-03967-3
5. Hantsoo, L., & Epperson, C. N. (2015). Premenstrual Dysphoric Disorder: Epidemiology and treatment. *Current Psychiatry Reports*, *17*(11). https://doi.org/10.1007/s11920-015-0628-3
6. O'Hara, M. W., & Wisner, K. L. (2014). Perinatal mental illness: Definition, description, and aetiology. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 28(1), 3-12. https://doi.org/10.1016/j.bpobgyn.2013.09.002
7. Heer, K., Mahmoud, L., Abdelmeguid, H., Selvan, K., & Malvankar-Mehta, M. S. (2024). Prevalence, risk factors, and Interventions of Postpartum Depression in Refugees and Asylum-Seeking Women: A Systematic Review and Meta-Analysis. *Gynecologic and Obstetric Investigation*, *89*(1), 11–21. https://doi.org/10.1159/000535719
8. Yim, I. S., Stapleton, L. R. T., Guardino, C. M., Hahn-Holbrook, J., & Schetter, C. D. (2015b). Biological and Psychosocial Predictors of Postpartum Depression: Systematic review and Call for integration. *Annual Review of Clinical Psychology*, *11*(1), 99–137. https://doi.org/10.1146/annurev-clinpsy-101414-020426
9. Schiller, C. E., Meltzer-Brody, S., & Rubinow, D. R. (2015). The role of reproductive hormones in postpartum depression. *CNS Spectrums*, 20(1), 48-59. https://doi.org/10.1017/S1092852914000480
10. Srivastava, K., Chatterjee, K., Prakash, J., Yadav, A., & Chaudhury, S. (2024). Comparative efficacy of cognitive behavior therapy and interpersonal therapy in the treatment of depression: A randomized controlled study. *Industrial Psychiatry Journal*, *33*(1), 160–167. https://doi.org/10.4103/ipj.ipj_294_23
11. Yim, I. S., Tanner Stapleton, L. R., Guardino, C. M., Hahn-Holbrook, J., & Dunkel Schetter, C. (2015). Biological and psychosocial predictors of postpartum depression: Systematic review and call for integration. *Annual Review of Clinical Psychology*, 11, 99-137. https://doi.org/10.1146/annurev-clinpsy-101414-020426
12. Abrahão, C. A., Bomfim, E., Lopes-Júnior, L. C., & Pereira-Da-Silva, G. (2019). Complementary therapies as a strategy to reduce stress and stimulate immunity of women with breast cancer. *Journal of Evidence-Based Integrative Medicine*, *24*, 2515690X1983416. https://doi.org/10.1177/2515690x19834169
13. Slomian, J., Honvo, G., Emonts, P., Reginster, J. Y., & Bruyère, O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's Health*, 15, 1745506519844044. https://doi.org/10.1177/1745506519844044

14. Dennis, C. L., & Dowswell, T. (2013). Psychosocial and psychological interventions for preventing postpartum depression. *Cochrane Database of Systematic Reviews*, (2), CD001134. https://doi.org/10.1002/14651858.CD001134.pub3
15. Meltzer-Brody, S., Colquhoun, H., Riesenberg, R., et al. (2018). Brexanolone injection in postpartum depression: Two multicenter, double-blind, randomized, placebo-controlled, phase 3 trials. *The Lancet*, 392(10152), 1058-1070. https://doi.org/10.1016/S0140-6736(18)31551-4
16. Field, T. (2017). Prenatal depression risk factors, developmental effects and interventions: A review. *Journal of Pregnancy and Child Health*, 4(1), 301. https://doi.org/10.4172/2376-127X.1000301
17. Lara, M. A., Navarrete, L., & Nieto, L. (2020). Impact of a perinatal depression treatment program integrated into primary care on maternal mental health and child development. *Perinatal and Child Mental Health*, 45(3), 217-226. https://doi.org/10.1002/pcmh.2020
18. O'Hara, M. W., & Wisner, K. L. (2014). Perinatal mental illness: Definition, description, and aetiology. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 28(1), 3-12. https://doi.org/10.1016/j.bpobgyn.2013.09.002
19. Fisher, J., Cabral de Mello, M., Patel, V., Rahman, A., Tran, T., Holton, S., & Holmes, W. (2012). Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: A systematic review. *Bulletin of the World Health Organization*, 90(2), 139-149. https://doi.org/10.2471/BLT.11.091850
20. Centers for Disease Control and Prevention. (2021). Postpartum depression. Retrieved from https://www.cdc.gov
21. Patel, V., Rahman, A., Jacob, K. S., & Hughes, M. (2018). Effect of maternal mental health on infant growth in low-income countries: New evidence and a call for action. *The Lancet*, 372(9646), 604-612. https://doi.org/10.1016/S0140-6736(08)61250-8
22. Chandran, M., Tharyan, P., Muliyil, J., & Abraham, S. (2002). Post-partum depression in a cohort of women from a rural area of Tamil Nadu, India: Incidence and risk factors. *The British Journal of Psychiatry*, 181(6), 499-504. https://doi.org/10.1192/bjp.181.6.499