

POSTPARTUM DEPRESSION IN WOMEN (REVIEW ARTICLE)

Falsafa Jamal¹, Rahman Gul^{1,2*}, Safia Mengal¹, Kashmala Khan³, Nighat Saleh¹, Aida Durrani⁴ and Muhammad Zaman Khethran¹

¹Institute of Public Health Quetta, Balochistan, Pakistan.

²Faculty of Pharmacy University of Balochistan, Pakistan.

³Fatima Jinnah Medical University, Lahore, Pakistan.

⁴Quetta Institute of Medical Sciences, Balochistan, Pakistan.

Received date: 27 March 2023

Revised date: 17 April 2023

Accepted date: 07 May 2023

*Corresponding Author: Rahman Gul

Institute of Public Health Quetta, Balochistan, Pakistan.

ABSTRACT

Postpartum depression is a condition that is commonly misdiagnosed and poorly managed. Numerous psychological factors may have an impact on the formation of postpartum depression. Postpartum depression is more likely to occur in people with a history of severe depression and in those who experienced depression during previous pregnancies. The development of a child, the mother-infant bond, and the risk that a child would exhibit anxious or depressive symptoms are all negatively impacted by untreated maternal depression. Many physiological and pathologic conditions might present as symptoms that resemble depression later in life. A comprehensive history-taking and physical examination are necessary for all postpartum depressed women. A key component of providing top-notch medical care is managing postpartum depression. The detection and treatment of postpartum depression can be greatly aided by pediatricians and obstetricians. In order to prevent negative effects associated with the disease and its influence on children, it is essential that all medical professionals, especially nurse practitioners, are knowledgeable about the specific signs and symptoms, adequate screening measures, and appropriate therapies for depression. Actually, the child reviews the key features of postpartum depression, which his mother experienced in the past. Therefore, the aim of this review article from Google, pub med, psychiatry journal by keying in the search term of postpartum depression psychotherapy, treatment searching postpartum depression. analysis was to estimate the pooled prevalence and associated factors of postpartum depression in this review. This covers aim traits of the postpartum depression.

KEYWORDS: Postpartum depression, psychotherapy, antidepressants, screening and treatment.

INTRODUCTION

The sickness prevalence has well-documented detrimental implications on public health for the mother, child, and family. Mothers who have postpartum depression are more likely to go on to have depression in the future, according to studies.^[1] Young children and infants are particularly vulnerable. A mother's relationship with her child may be impacted by postpartum depression, which has been associated to problems with attachment insecurity, delayed cognitive development, and social/interaction difficulties.^[2] Babies as early as three months old have been shown to be able to accurately sense their mothers' emotions and change their own reactions as a result.^[3]

The postnatal phase is a multifaceted term that includes not only the women's personal care but also the care of their infants, their homes, and their social and professional networks.^[4] A test developed by Fawcett, Tulman, and Myers in 1988 was used to evaluate a woman's postpartum recovery. They claim that in the general population, between 47% and 57% of women return to their pre-pregnancy status by six weeks after giving birth and 76% by 12 weeks. In a recent research report, Bobbie Posmontier stated that a woman's general state of health helps to monitor and treat postpartum depression as well as forecast the severity of the postpartum period. One to two women experience postpartum psychosis for every 1,000 live babies, which is a mental emergency. Rapid intervention is required due to the danger of infanticide and suicide. The first two

weeks after delivery are when it peaks and is most common in first-time mothers 35 years of age and older.

Agitation, anxiety, sleeplessness, paranoia, disorganised thinking, impulsivity, hallucinations, and delusions are some of the signs of postpartum psychosis.^[5] Postpartum psychosis is one of the common manifestations of bipolar illness. It needs to be treated using the same protocol as acute manic psychosis, which should involve hospitalisation, the potential use of mood stabilisers, antipsychotics, benzodiazepines, and electroconvulsive therapy (ECT). (Postpartum Depression Patel, Bailey, Jabeen, Ali, Barker, and Osiezgha).

PPD is not recognised as a separate diagnosis by the DSM-IV-TR, but rather as a subtype of major depressive disorder. Sadness or loss of interest are typical signs of postpartum depression, as are lack of or excessive concern for the baby, poor focus, lack of sleep, disrupted appetite, anxiety, or impatience. It begins four weeks after delivery. One in eight new mothers, or up to 50%, have recurrence.^[6]

Unfortunately, less than 50% of women are effectively tested and treated for postnatal depression during their vital period, according to the report. Within the confines of her cultural and traditional restrictions, the presence of an authentically skilled birth attendant and obstetric care provider may help her overcome upcoming obstacles in regards to her health with confidence.^[7]

It has been established that children of depressed mothers are up to five times more likely to have long-term behavioural issues. Postpartum depression has also been shown to negatively affect cognitive abilities, the development of expressive language, and attention span. In addition to neglect or abuse of children, postpartum depression has also been linked to marital stress that leads to divorce or separation.^[8] Additional uncommon but substantial impacts of postpartum depression that must be ignored include maternal and newborn mortality.^[9] According to Slomian *et al.* (2019), postpartum psychosis, the most severe disease, affects 1-2 cases per 1000 women after giving birth at around 16 weeks.^[10] The start time following delivery can be anywhere from two, three, and three months. Extreme exhaustion, apathy towards food, agonising anxiety, and agitation are among symptoms.^[11] In addition to delusions, visual hallucinations, denials of the child's birth or death, and suicidal thoughts or actions are all possible.^[5] A doctor should evaluate any postpartum psychosis in a woman as soon as feasible, and she should be admitted to the hospital for both medical and mental care. This condition is regarded as a significant medical emergency since, in the absence of treatment, it could harm the mother, the unborn child, or other children fatally.^[12] Early detection of postpartum depression is accomplished by a medical examination; it is not regarded as a diagnosis. A positive test result may not always mean that it accurately represents the patient's current health. The nurse's

instinct that "something is awry" is a good place to start when examining the mother's condition for postpartum depression.^[13]

Nurses and midwives who had interaction with labouring mothers were responsible for early detection of probable postpartum depression symptoms.^[14] The family should be considered while analysing and intervening because pregnancy affects the entire family.^[15] Due to the reality of a shorter recovery period following childbirth, today's new mothers must quickly switch from worrying about themselves to worrying about their newborn. It is essential that the mother's physical and emotional needs are met so she can focus on caring for her newborn. A new mother may experience a range of emotions, including excitement, annoyance, anxiety, confusion, and panic. Additionally, there are bodily symptoms like fatigue and headaches.^[16] If the patient's mood does not improve after 21 days or if serious symptoms appear, they should be referred to a mental health professional. The family should be considered while analysing and intervening because pregnancy affects the entire family.^[17] There is little evidence to support a biological basis, and it is not immediately clear what causes postpartum depression. Despite substantial research, no single reason has been identified. The importance of psychological variables in research findings has been taken into consideration.^[18] Stressful life events like marital issues and a lack of social support have been shown to significantly increase the risk of postpartum depression.^[19] The need of social support was highlighted particularly in a study involving thousands of women. Postpartum depression was about twice as likely to affect moms who did not receive enough social support.^[20] A range of behavioural and psychological strategies have been modified to treat postpartum depression in order to address the PPD issue.^[21] In order to reduce the risk of postpartum depression, the main goal of this study was to evaluate the benefits of preventative psychosocial and psychological mediation over traditional antepartum, intrapartum, or postpartum care on mothers and their families.^[22]

1. One of the secondary objectives is to evaluate the effectiveness of various psychosocial participation initiatives.^[23]
2. The results of a particular interposition modality, such as individual versus group-based intervention, and
3. The effectiveness of specific types of psychological interference.

EPIDEMIOLOGY

Although the exact aetiology of postpartum depression is still unknown, extensive research suggests a complex explanation. The prevalence of PPD in the United States ranges from 7 to 20%, but most studies point to rates between 10 and 15%.^[24] Epidemiological research and meta-analyses of studies that have come before it, however, have consistently shown how important psychosocial and psychological factors are in causing

postpartum depression.^[22] Theoretically, these variables may also be used throughout pregnancy and the early postpartum period to avoid the incidence of postpartum depression.^[25] even though arbitration based on these variables may be an effective treatment plan.

The time immediately following delivery, which lasts for 4 to 6 weeks, is known as the puerperal phase, post-natal period, or postpartum period. Symptoms of major depressive episodes include depressed mood, loss of interest in activities, disturbances in appetite, irregular sleep patterns, psychomotor distress and anxiety, fatigue, and feelings of insignificance or unfortunate poor concentration as well as suicidal thoughts [Major depressive episodes can start as soon as two to four weeks after delivery. Ten to fifteen percent of new mothers have postpartum depression (PPD), a psychiatric condition. According to most research, PPD prevalence rates in the United States are between 10 and 15%.^[2] however the range is 7 to 20%. The risk is 5.7% and 10.0%, respectively, over the lifetime at two and six months postpartum. The strongest risk factor for PPD is a history of postpartum severe depression before or during pregnancy. Additional significant risk factors include obstetric difficulties, low levels of social support, four big life events or stressors during pregnancy, low socioeconomic status, and antenatal depression symptoms.^[26] Untreated maternal illness damages early mother-infant bonding and contributes to the harmful short- and long-term effects on children. The early mother-infant attachment is altered by untreated maternal illness, which is connected to both short- and long-term harmful consequences on offspring. Along with delayed mental and motor development, infant cognitive competence, poor self-regulation, low self-esteem, and behavioural problems, children who suffer it are also more likely to have several other conditions. Improved obstetrical and primary care screening strategies are crucial because depression is frequently misdiagnosed either during pregnancy or after delivery.^[18] Inadequate care for depression puts women at risk for the effects of untreated affective disease and increases the likelihood that their depression will become chronic, recurrent, and resistant.^[27]

RISK FACTORS OF PPD

Risk factors for postpartum depression include stress, low socioeconomic status, a lack of social support, a history of depression, and birth challenges such as preterm birth or mother-to-child separation.^[28] Before the symptoms are acknowledged by medical professionals, the early symptoms of postpartum depression may manifest in women earlier in the postpartum period.^[29] many factors identified in the progress of PPD given in BOX.

- Ageless than 20 years
- Current substance abuse
- History & family history of mental illness
- Stressful event during pregnancy Marital Conflict
- Stressful life events in the previous 12 months

- Lack of perceived social support from family and friends for the pregnancy
- Mother's unemployment
- Husband's lifelong history of depression
- Child-care related stressors
- Sick leave during pregnancy related to hyperemesis, uterine irritability, Previous miscarriage; a strained relationship with one's mother; not nursing; living alone; a partner who isn't financially or emotionally supportive; frequent visits to prenatal care centres; Bipolar condition; a congenitally deformed child; personality traits (high neuroticism and strong introversion);

DIAGNOSIS

For the majority of studies (10 out of 15), Zlotnick found that postpartum depressive symptoms were defined as having a score on the Edinburgh Postnatal Depression Scale (EPDS) greater than 12 (also reported as a 12/13 cut-off score); postpartum depressive symptoms were defined in all but one trial as having a score higher than a predetermined cut-off point on a self-report measure. Several studies, including those by Armstrong, Gorman, Gunn, MacArthur, Morrell, Reid, and Small, also noted mean EPDS scores. In two more trials, the EPDS was used to measure postpartum depression, but each trial utilised a different cut-off score. Reid asserts that the cut-off was selected at 11/12 rather than Burgha research's use of a 10/11 cut-off.

It's important to keep in mind that while the EPDS is widely used to measure postpartum depression symptoms, it cannot diagnose postpartum depression (this can only be done through a psychiatric clinical interview). The EPDS is notable since it was created to solve the inadequacies of other well-established depression measures, has acceptable recognised reliability and validity in over 11 languages, and has been validated by structured psychiatric interviews with large samples. Levender and Tam employed the Hospital Anxiety Depression Scale as a self-report measure in their respective studies as an alternative to the EPDS. While Gorman and Zlotnick opted to use a semi-structured diagnostic interview (SCI for DSM-IV) to evaluate for depression.^[30]

After thorough histories and physical examinations, the PPD tool for depression has greatly aided in diagnosis. The Edinburgh Postnatal Depression Scale (EPDS) is promoted in the outpatient area and has been linked to an improvement in postpartum depression detection. A reliable and efficient way to determine the severity of the disease is to ask the following questions. (A) In the last two weeks, did you experience any depression or poor mood? (a) Do you feel less motivated and satisfied by doing the same old things?^[30]

The Edinburgh Postnatal Depression Scale is a well-known and commonly used screening instrument for evaluating perinatal depression. The EPDS is a 10-item

self-report that the patient rates on a scale of 1 to 3 based on their personal experiences during the previous two weeks. According to Garcia *et al.*^[31] the score of 13 is typically used as the cut-off value for diagnosing women who are at risk. It has also been demonstrated to be useful in detecting major and moderate postpartum depression in up to 86% of women.

The examination of a vast amount of data leads to the conclusion that postpartum depression syndrome usually manifests between 4 and 6 weeks after delivery, making it simple to approach, identify, and screen for it during the first postnatal obstetric follow-up. Authentic health care providers may decide to screen within the first 1 to 2 weeks after delivery to assess this.^[32] On the patient's request, an EPDS screening may also be carried out over the phone. Women should be encouraged to schedule an early postnatal appointment to evaluate the patient's mood, symptoms, and physical condition if they received a score of 13 on the EPDS screening test.^[33] This evaluation seems helpful in assessment of high risk mothers than the speculations related to the diagnosis of postpartum depression.^[33]

TREATMENT

Psychotherapy and antidepressant drugs are the mainstays of postpartum depression treatment.^[34] While psychosocial interventions with individuals and groups can treat mild to moderate depression instead of using drugs. Patients with persistent symptoms, those at high risk of relapse, those with panic disorders, as well as those who are unwilling to take medicine, all benefit from psychotherapy.^[35] For the treatment of postpartum depression, the value of interpersonal psychotherapy and intellectual behaviour is undeniable.^[12]

Although there is no set methodology for choosing antidepressants, it is still believed that pharmacological strategies for PPD, which are frequently utilised in the perinatal period, are the gold standard for treatment. With the exception of situations where there is a specific contraindication, choosing drugs is now made easier for patients who have a history of depression and have previously responded well to and effectively to treatment.^[36] The presence of a family history of depression suggests that a mother should receive treatment. When treating PPD, the patient's primary symptoms and any adverse drug reactions should be taken into account. The preferred course of treatment for PPD includes a variety of choices, such as tricyclic antidepressants, selective serotonin reuptake inhibitors, monoamine oxidase inhibitors, and serotonin and norepinephrine reuptake inhibitors. To stop relapse, medications should be used for a minimum of six months and a maximum of one year, depending on the state of the women and their medical history.^[37]

Studies suggest that selective serotonin reuptake inhibitors and serotonin-norepinephrine reuptake

inhibitors should be used as the first line of treatment. The effects of treatment should start to show within the first six weeks; if not, referral to a mental health expert should be suggested.

Women in their childbearing years typically receive obstetrical and gynaecological treatment from their primary care physician in the United States and other affluent nations. Because primary care physicians and obstetricians play a crucial part in the early identification of psychiatric problems. Despite the rarity of routine screening throughout pregnancy. The use of PPD screening alone in primary care settings has decreased the use of depressive medication and patient referrals for special care. But as of yet, no impact on the result has been seen.^[38]

On the other hand, research including 37 PPD patient trials has shown that adding collaborative care and screening to initial visits to primary care settings has improved the results. To avoid the severity, close monitoring and education on mental health are crucial. A validated depression scale must be used by the carer to keep track of the symptoms.^[39] In the event that the patient's symptoms increase, the supervision of the psychiatrist and his or her team is essential for providing more care. With the help of obstetricians, nurses, and psychological allies, primary care providers should take mental health into consideration. This will help women experience postpartum depression less frequently. In addition to all of this, a supportive nurse's presence and the role of a partner in the family can help to strengthen the link between a mother and her child.^[40] With the help of follow-ups, family and social support, and effective primary care treatment, depression can be treated. The systemic screening for depression in primary care and the communication of symptoms and improvement to the provider have significantly increased the disorder's improvement.^[41]

Table 1: Antidepressants Medications For Postpartum Major Depression.

Drug	Starting dosage	Usual treatment dosage	Maximal dosage	Adverse effects for this group	Excreted in breast milk
Selective serotonin reuptake inhibitors					
Citalopram (Celexa)	10mg	20 to 40mg	60mg	Headaches, nausea, Diarrhea, sedation	++
Esitalopram (Lexapro)	5mg	10 to 20mg	20mg	Insomnia ,tremor	++
Fluoxetine (Prozac)	10mg	20 to 40mg	80mg	Nervousness, loss of libido	+
Paroxetine (paxil)	10mg	20 to 40mg	50mg	Loss of libido, Delayed orgasms	+
Desvenlafaxine, extended release (Pristiq)	50mg	50mg	100mg	Headaches, nausea ,sedation, Insomnia, tremor.	+
Duloxetine (Cymbalta)	20mg	30 to 60mg	60mg	Nervousness	+
Venlafaxine, extended release(Effexor XR)	37.5mg	75 to 300mg	300mg	Loss of libido, Delayed orgasm Sustained hypertension	
Other antidepressants					
Bupropion, extended release (Wellbutrin XL)	150mg	150mg to 300mg	450mg	Seizures(0.4) Agitation,dry mouth	
Bupriprpion, sustained Release	100mg	200 to 300mg, Divided, twice per day)	450mg	Sweating ,nausea	

CONCLUSION

Postpartum depression has been a problem for a long time, but in the past 20 years, it has only lately begun to receive public attention. One of the main reasons for emphasising the necessity for developing new services for postpartum depression is mothers who harm their newborn children. It has been linked with significant negative effects not only on sad women themselves, but on the, cognitive, physical and emotional growth of their children. Early finding and involvement are necessary in declining such risks. here have been few medicine trials particularly assessing the effectiveness of antidepressant medicine or ECT for postpartum depression, but the existing evidence supports that treatment typically utilized to treat severe despair in the common population are equally effective in PPD. Some references suggest that estrogens, may be an effective agent for treatment of postpartum depression, however, data remain less in time and there are significant health considerations with hormonal interventions and further research is required. Psychological treatments for PPD are often the treatment of choice for women, as they are effective for the treatment of depressive symptoms and do not involve the risks of exposure to medications. Future studies are required to confirm the efficacy of psychotherapies for PPD, analyse antidepressants with psychotherapy, and compare combined psychotherapy/antidepressant treatment with either treatment alone.

REFERENCES

- Oh, H. J., & Kim, S. S. Effects of Parenting Stress, Sleep Quality, Self-Compassion and Family Relationship on Mothers' Postpartum Depression. *Journal of the Korean Academy of Fundamentals of Nursing*, 2022; 29(2): 150–158. <https://doi.org/10.7739/jkafn.2022.29.2.150>.
- Keefe, R. H., Brownstein-Evans, C., Lane, S. D., Carter, D. B., & Roulund Polmanteer, R. S. Postpartum Depression and the Affordable Care Act: Recommendations for Social Work Educators. *Advances in Social Work*, 2016; 16(2): 202–213. <https://doi.org/10.18060/18502>.
- Srinivasan, R., Pearson, R. M., Johnson, S., Lewis, G., & Lewis, G. Maternal perinatal depressive symptoms and offspring psychotic experiences at 18 years of age: a longitudinal study. *The Lancet Psychiatry*, 2020; 7(5): 431–440. [https://doi.org/10.1016/S2215-0366\(20\)30132-2](https://doi.org/10.1016/S2215-0366(20)30132-2).
- Johann, A., & Ehlert, U. Similarities and differences between postpartum depression and depression at other stages of female life: a systematic review. *Journal of Psychosomatic Obstetrics and Gynecology*, 2022; 43(3): 340–348. <https://doi.org/10.1080/0167482X.2021.1962276>
- Patel, M., Bailey, R. K., Jabeen, S., Ali, S., Barker, N. C., & Osiezagha, K. Postpartum depression: A review. *Journal of Health Care for the Poor and Underserved*, 2012; 23(2): 534–542. <https://doi.org/10.1353/hpu.2012.0037>.
- Wells, T. Postpartum Depression: Screening and Collaborative Management. *Primary Care - Clinics*

- in *Office Practice*, 2023; 50(1): 127–142. <https://doi.org/10.1016/j.pop.2022.10.011>.
7. Sharma, V., & Baczynski, C. Is bipolar post-partum depression overlooked? *The Lancet Psychiatry*, 2019; 6(11): 891–892. [https://doi.org/10.1016/S2215-0366\(19\)30386-4](https://doi.org/10.1016/S2215-0366(19)30386-4).
 8. Paiz, J. C., de Jesus Castro, S. M., Giugliani, E. R. J., dos Santos Ahne, S. M., Aqua, C. B. D., & Giugliani, C. Association between mistreatment of women during childbirth and symptoms suggestive of postpartum depression. *BMC Pregnancy and Childbirth*, 2022; 22(1): 1–11. <https://doi.org/10.1186/s12884-022-04978-4>
 9. King, C. R., Morgan, S. M., Firebaugh, C. M., Beeson, T., Legg, T. J., & Wardlow, R. Postpartum Depression: Far Reaching Impact and the Role of Empowerment. *Open Journal of Depression*, 2021; 10(02): 29–42. <https://doi.org/10.4236/ojd.2021.102003>.
 10. Slomian, J., Honvo, G., Emonts, P., Reginster, J. Y., & Bruyère, O. Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. In *Women's Health*, 2019; 15. <https://doi.org/10.1177/1745506519844044>.
 11. Ratnani, D. Study of prevalence of postpartum depression among women. *International Journal of Health Sciences*, 2022; 6(March): 1658–1663. <https://doi.org/10.53730/ijhs.v6ns6.9793>.
 12. Srinivasan, R., Pearson, R. M., Johnson, S., Lewis, G., & Lewis, G. Maternal perinatal depressive symptoms and offspring psychotic experiences at 18 years of age: a longitudinal study. *The Lancet Psychiatry*, 2020; 7(5): 431–440. [https://doi.org/10.1016/S2215-0366\(20\)30132-2](https://doi.org/10.1016/S2215-0366(20)30132-2).
 13. Tahiri, S., Sopjani, I., Ejupi, V., Beqiri, L., & Berisha, A. Postpartum Depression and the Role of Midwives in Its Early Detection. *Open Journal of Nursing*, 2020; 10(08): 745–757. <https://doi.org/10.4236/ojn.2020.108053>.
 14. Hospital, T. B., Ahmed, R., Hussein, S., Gamma, R., Hamed, A., & Ahmed, R. A. *International Journal of Psychiatry Research Causes of Postpartum Depression among Sudanese Women from 2019 to 2021 in Taha Baasher Hospital*. April. <https://doi.org/10.33425/2641-4317.1160>, 2023.
 15. Beydokhti, T. B., Dehnoalian, A., Moshki, M., & Akbary, A. Effect of educational- counseling program based on precede-proceed model during Pregnancy on postpartum depression. *Nursing Open*, 2021; 8(4): 1578–1586. <https://doi.org/10.1002/nop2.770>.
 16. Guintivano, J., Manuck, T., & Meltzer-brody, S. *HHS Public Access*, 2019; 61(3): 591–603. <https://doi.org/10.1097/GRF.0000000000000368>. Pre dictors.
 17. King, C. R., Morgan, S. M., Firebaugh, C. M., Beeson, T., Legg, T. J., & Wardlow, R. Postpartum Depression: Far Reaching Impact and the Role of Empowerment. *Open Journal of Depression*, 2021; 10(02): 29–42. <https://doi.org/10.4236/ojd.2021.102003>.
 18. Hutchens, B. F., & Hutchens, B. F. *Risk Factors for Postpartum Depression: An Umbrella Review*. <https://doi.org/10.1111/jmwh.13067>, 2020.
 19. Li, Y. Incorporating Empathic Responses into Postpartum Depression Psychotherapy. *Open Journal of Depression*, 2021; 10(01): 1–13. <https://doi.org/10.4236/ojd.2021.101001>.
 20. Jamshaid, S., Malik, N. I., Ullah, I., Saboor, S., Arain, F., & Berardis, D. De. *Postpartum depression and Health: Role of Perceived Social Support among Women*. <http://dx.doi.org/10.20944/preprints202301.0018.v1>, 2023.
 21. Tahiri, S., Sopjani, I., Ejupi, V., Beqiri, L., & Berisha, A. Postpartum Depression and the Role of Midwives in Its Early Detection. *Open Journal of Nursing*, 2020; 10(08): 745–757. <https://doi.org/10.4236/ojn.2020.108053>
 22. Dennis, C.-L., & Dowswell, T. (2013). Psychosocial and psychological interventions for preventing postpartum depression. *Cochrane Database of Systematic Reviews*, 2020; 2. <https://doi.org/10.1002/14651858.CD001134.pub3>.
 23. Mitchell, H. A., Edali, S., & Konkle, A. T. Considering Xenobiotics as Risk Factors for Postpartum Depression: A Qualitative Systematic Review. *Journal of Health and Medical Sciences*, 2020; 3(1): 119–131. <https://doi.org/10.31014/aior.1994.03.01.105>.
 24. Patel, M., Bailey, R. K., Jabeen, S., Ali, S., Barker, N. C., & Osiezagha, K. Postpartum depression: A review. *Journal of Health Care for the Poor and Underserved*, 2012; 23(2): 534–542. <https://doi.org/10.1353/hpu.2012.0037>.
 25. Li, Y. Incorporating Empathic Responses into Postpartum Depression Psychotherapy. *Open Journal of Depression*, 2021; 10(01): 1–13. <https://doi.org/10.4236/ojd.2021.101001>.
 26. Lewis, B. A., Schuver, K., Dunsiger, S., Samson, L., Frayeh, A. L., Terrell, C. A., Ciccolo, J. T., Fischer, J., & Avery, M. D. Randomized trial examining the effect of exercise and wellness interventions on preventing postpartum depression and perceived stress. *BMC Pregnancy and Childbirth*, 2021; 21(1): 1–11. <https://doi.org/10.1186/s12884-021-04257-8>.
 27. Gastaldon, C., Solmi, M., Correll, C. U., Barbui, C., & Schoretsanitis, G. *Risk factors of postpartum depression and depressive symptoms: umbrella review of current evidence from systematic reviews and meta-analyses of observational studies*, 2022; 591–602. <https://doi.org/10.1192/bjp.2021.222>.
 28. Doğan, R. A., & Beji, N. K. Qualidade de vida e condições de depressão em mulheres com diabetes gestacional durante a gravidez e o período pós-parto. *Revista Brasileira de Ginecologia e Obstetricia: Revista Da Federacao Brasileira Das Sociedades de Ginecologia e Obstetricia*, 2023; 45(2): 65–73. <https://doi.org/10.1055/s-0043-1764494>.

29. O'Hara, M. W., & McCabe, J. E. Postpartum depression: Current status and future directions. *Annual Review of Clinical Psychology*, 2013; 9(February 2013): 379–407. <https://doi.org/10.1146/annurev-clinpsy-050212-185612>.
30. Clare, C. A., & Yeh, J. Postpartum depression in special populations: A review. *Obstetrical and Gynecological Survey*, 2012; 67(5): 313–323. <https://doi.org/10.1097/OGX.0b013e318259cb52>
31. Garcia, V., Meyer, E., & Witkop, C. Risk Factors for Postpartum Depression in Active Duty Women. *Military Medicine*, 2022; 187(5–6): e562–e566. <https://doi.org/10.1093/milmed/usab161>.
32. Zhao, A., Huo, S., Tan, Y., Yang, Y., Szeto, I. M. Y., Zhang, Y., & Lan, H. The Association between Postpartum Practice and Chinese Postpartum Depression: Identification of a Postpartum Depression-Related Dietary Pattern. *Nutrients*, 2022; 14(4): 1–11. <https://doi.org/10.3390/nu14040903>.
33. Sharma, R. A Review on Therapeutic Intervention of Yoga and Ayurveda in Post-Partum Depression. *Open Journal of Obstetrics and Gynecology*, 2022; 12(03): 201–208. <https://doi.org/10.4236/ojog.2022.123020>.
34. Slomian, J., Honvo, G., Emonts, P., Reginster, J. Y., & Bruyère, O. Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. In *Women's Health*, 2019; 15. <https://doi.org/10.1177/1745506519844044>.
35. Andersson, A., Garcia-Argibay, M., Viktorin, A., Ghirardi, L., Butwicka, A., Skoglund, C., Bang Madsen, K., D'onofrio, B. M., Lichtenstein, P., Tuvblad, C., & Larsson, H. Depression and anxiety disorders during the postpartum period in women diagnosed with attention deficit hyperactivity disorder. *Journal of Affective Disorders*, 2023; 325(January): 817–823. <https://doi.org/10.1016/j.jad.2023.01.069>.
36. Wells, T. Postpartum Depression: Screening and Collaborative Management. *Primary Care - Clinics in Office Practice*, 2023; 50(1): 127–142. <https://doi.org/10.1016/j.pop.2022.10.011>.
37. Yook, V., Yoo, J., Han, K., Fava, M., Mischoulon, D., Park, M. J., Kim, H., & Jeon, H. J. Association between pre-pregnancy tobacco smoking and postpartum depression: A nationwide cohort study. *Journal of Affective Disorders*, 2022; 316: 56–62. <https://doi.org/10.1016/J.JAD.2022.07.065>.
38. Detsuka, N., Kawashima, A., & Yano, R. Fatigue and Depression from Early Postpartum to 1 Month among Postpartum Women with Mental Disorders. *Open Journal of Nursing*, 2017; 07(12): 1430–1438. <https://doi.org/10.4236/ojn.2017.712101>.
39. Keefe, R. H., Brownstein-Evans, C., Lane, S. D., Carter, D. B., & Rouland Polmanteer, R. S. Postpartum Depression and the Affordable Care Act: Recommendations for Social Work Educators. *Advances in Social Work*, 2016; 16(2): 202–213. <https://doi.org/10.18060/18502>.
40. Ickovics, J. R., Kershaw, T. S., Westdahl, C., Magriples, U., Massey, Z., Reynolds, H., & Rising, S. S. Group prenatal care and perinatal outcomes: a randomized controlled trial. *Obstetrics and Gynecology*, 2007; 110(2 Pt 1): 330–339. <https://doi.org/10.1097/01.AOG.0000275284.24298.23>.
41. Sharma, R. A Review on Therapeutic Intervention of Yoga and Ayurveda in Post-Partum Depression. *Open Journal of Obstetrics and Gynecology*, 2022; 12(03): 201–208. <https://doi.org/10.4236/ojog.2022.123020>.

