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# A Brief Review on Postpartum Depression

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#### Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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#### **ABSTRACT**

Postpartum depression is a medical condition in which a woman faces mental issues after delivery. Postpartum depression is associated with anxiety, mood swings, tiredness, feeling scared all the time, trouble sleeping or sleeping, weight loss, stress eating, losing interest, sudden weight gain, and difficulty concentrating or making decisions, fatigue and several other issues. It can happen during pregnancy as well as after giving birth. Some women experience baby blues while some experience postpartum depression. Women feel depressed and sadly most of the time. Depression can make it difficult for mother to take care of herself and the child. Various lifestyle choices also need to be mentioned while talking about factors causing PPD. Some factors affecting PPD are lack of physical activity and exercise, bad eating habits, disturbed sleep cycle etc. it may include hormonal changes, sleep deprivation, risk factors, psychological stress. One of the chief factors affecting postpartum depression is the sleep cycle. It is seen that less sleep is brought near to postnatal depression. Exercise, psychosocial support, physical stretching or working activity can decrease symptoms of depression. Exercise causes the release of mood-boosting hormones such as dopamine and serotonin, which elevates the mood. Low esteem caused by depression can be decreased by an elevated mood. Exercise can also increase endogenous endorphins and opioids which gives a positive mood. It also increases problem solving capacity and confidence. The most common management methods used for managing depression are psychological support, professional help, interpersonal psychotherapy and cognitive therapy.

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## 1. INTRODUCTION

A mix of various physical, emotional, and behavioural changes in women after pregnancy is called postpartum depression. It is also called Postnatal Depression (PND) [1].

It is a form of depression that starts within 4 weeks of delivery. Major social, chemical and psychological changes are included. It is type of a mood disorder associated with childbirth.

Emotions like joy, excitement, fear and anxiety are triggered with the birth of a baby. But it results in depression in some cases [2].

Postpartum, which include some kind of crying pains, immeasurable mood swings, fatigue and difficulty in sleeping is experienced by many new moms after childbirth. Within the first three to four days after delivery, baby blues begin and which can last for about two weeks.

But in few cases, baby's moms can experience a more intense type of depression that is "Postpartum Depression", "PPD". Postpartum psychosis is a more sensitive condition which can also develop after childbirth [3].

## 2. EPIDEMIOLOGY

Almost one in eight or ten women are near likely to experience postpartum depression [PPD]. Mothers experiencing baby blues can rapidly recover, but postpartum depression is longer and severely affects women's normal functioning ability. Due to Postpartum depression, the mother-child relationship get affected. Baby's mom's behaviour and brain responses changes in PPD. A study in 2006 states that half of women suffering from PPD are undiagnosed due to lack of knowledge or certain family issues. A stigma is present around new mothers that disclosures may lead to relinquishment and anxiety of lack of mental support, confidence by mentally also. Because of this, many women find it difficult to share their condition with their loved ones. The severe public health problem is postpartum depression (PPD) that affects about 12% of the women within almost year birth of child. In women rates of depression don't appears higher after the period of childbirth, age matched control women (10-15%) are compared. At critical period of life of depression, it carries some meaning that are special and women tend to risk as well as her family. There are more possibilities to recognize increasing risk factors in women. Routine PPD recommended difficulty for the unbearably low positive predictive possible effects of all the antenatal, anti-digressional screening tools which are currently available. Postpartum screening tools of several types exists but for the screening of optimal time and multicultural populations of applicability are not well established yet. Depression screening program of meta-analysis generally concludes that depression screening and systemic paths must be combined for welldefined and referral of cases and preimplemented self-care plans to achieve various positive benefits. Postpartum possible depression unfortunately remains undertreated and underdiagnosed.

For women from diverse cultures postpartum depression became serious clinical condition that remains undiagnosed but needs to be clinically treated. Although lot of measures are to detect depressive symptoms in new moms, there is a need or careful consideration for the growth of the postpartum depression (PPD) screening or monitoring program. Strongly evidence and proven based decisions must be taken regarding:

- The most effective i.e. powerful (by means of medically) screening test and some specific.
- Health self-care system issues related to depression such as potential harm, policies for referral and cost effectiveness [4].

Several researchers say that PPD (Postpartum Depression) is amendable to treating and hence provide a proportional for the betterment of the PPD screening monitoring program. Before based programs, evidence worldwide implemented few well-designed controlled trails have been conducted for practice and policy recommendation, suggestion and further research-study is required. There are possible chances, that there isn't a single pathway by which mothers develop Postnatal Depression PPD, so it is not possible that one type of single treatment measure or solution treatment will be effective for all the women.

Postpartum depression has many severe effects on child growth and development and also mother-child relationship. Many studies have been conducted on this topic, which concludes that postpartum depression (PPD) affects mother infant bonds and affects mother's social behaviour. The studies see young children with mothers suffering from postpartum depression have a combination of behavioural, grasping and interpersonal physical, emotional, and genetic problems than children with mothers who suffer from postnatal depression.

As long as emotional growth and development are concerned, research supports an early effect of PPD on blue baby affect but does not support a longer effect. The effect of PPD on children is dependent on the exposure to prolonged effect of PPD or to redirection effects of the mother's depression.

Negative behaviour towards child, lack of interest in usual activities, anxiety and depression, premenstrual syndrome (PMS) are some of the psychological factors that are responsible for development of postpartum depression.

Some other factors that contribute towards postpartum depression includes emergency C-section and hospitalization between pregnancies, low levels of haemoglobin, preterm born infant.

Postpartum depressions is also effected by various social and emotional factors. Domestic violence in the terms of sexually partial, trouble in bonding with the babies, mental numbness can also lead to PPD. Smoking and drinking during pregnancy can also harm mothers' mental state, which can increase the risk of PPD.

Various lifestyle choices are also needed to be mentioned while talking about factors causing PPD. Some factors affecting PPD are lack of physical activity and exercise, bad eating habits, disturbed sleep cycle etc. it may include factors like hormonal changes, sleep deprivation, risk factors, psychological stress. One of the chief factors affecting postpartum depression is the sleep cycle. It is seen that less sleep is brought depression. near to postnatal Exercise, psychosocial support, physical stretching or working activity can decrease symptoms of depression. Exercise causes release of mood boosting hormones such as dopamine and serotonin which in turn elevates the mood. Low esteem caused by depression can be decreased by an elevated mood. Exercise can also increase endogenous endorphins and opioids which gives a positive mood. It also increases problem solving capacity and confidence.

A wide committee of research has shown the link between maternal depression and offspring growth and development. Many studies reveal that PPD has adverse effects on the children of mother suffering from chronic depression. However, maternal depression is more harmful, especially in infancy as infants are exposed to mothers' negative behavior in their earliest months of life, which is a crucial period in children's lives. Early crucial period is when the children are most influenced surroundings, they learn everything, observe everything. Exposure to negativity in this period causes many negative impacts on children which are difficult to cure later. It is seen that women who are more aware about PPD have more advantage in managing the case than women who are ignorant about it. In our society it is indeed one of the most important issue to spread knowledge about PPD. PPD not just affects mother and their children but has some effects on father also.

As we know pregnancy is associated with happiness and joy all around for a significant number of women, the case is not the same. In PPD women suffer from conditions including loneliness, sadness, fatigue and exhaustion [5].

### 3. CAUSES

Postpartum depression has various causes which are mentioned about:

- Lifestyle changes
- Biological factors
- Relationships
- Stress
- Depression history
- Images of motherhood

Signs and symptoms of PPD include:

- Panic attacks
- Irritability
- Anxiety
- Tiredness
- Appetite issues
- Sleep disorders
- Concentration issues
- Tearfulness
- Obsessive behaviour
- Fatigue [6]

Strategies for managing PPD at home are:

Be open about your feelings

- Eat healthy
- Talk to your loved ones about it
- Organize stuff
- Rest well
- Take your time to have fun
- Take your time to relax
- Speed you're me time
- Take time to relax with your family and friends
- Take medical help if necessary

#### Treatments available for PPD are:

- Counselling
- Medicines
- Hospitalization
- Exercise
- Meditation
- Nature Therapy (Nature cohabitation) [7]

As PPD has considerable effects for the mother and the baby, and their early relationship with each other, knowledge about prolonged effects in the mental health of mothers with postpartum depression may not only improve the understanding about PPD but also inform intervention and prevention strategies.

#### 4. TREATMENT

The most common management methods used for managing depression are psychological support, professional help, interpersonal psychotherapy and cognitive therapy.

The severe public health problem is postpartum depression (PPD) that affects about 12% of the women within almost year birth of child. In women rates of depression doesn't appears higher after the period of childbirth, age matched control women (10-15%) are compared. At critical period of life of depression it carries some meaning that are special and women tend to risk as well as her family. There are more possibilities to recognize increasing risk factors for PPD in women.

Routine care are recommended difficulty for the unbearably low positive predictive possible effects of all the antenatal, anti-digressional screening tools which are currently available. Postpartum screening tools of several types exists but for the screening of optimal time and multicultural populations of applicability are not well established yet. Depression screening program of meta-analysis generally concludes

that depression screening and systemic paths must be combined for well-defined and referral of cases and pre-implemented self-care plans to achieve various possible positive benefits. Postpartum depression unfortunately remains undertreated and underdiagnosed [8].

In the research it is noticed that postpartum depression are controllable to same treatment interference as the normal depression but very some of them are protective controlled based trails which are existing for guide practice or reference and the policies for the population. Proofs which exists on for short term negative effects the maternal depression which appears to be for limited time. Though, recurrent periods or prolonged maternal depression will appears to be more likely to be the cause of lengthy attain on the kids. Healthful living mediation to decrease or lighten contact of postpartum depression on the mother-infant relation or increase and progress in children are budding and proof which are current makes it more hard to suggest them as criterion exercises.

Next move of details draws attention to gaps of various numbers in the composition that need to be contacted in the examination of the future, which helps to grow excellent proof depends on the policy agreement taken and maintenance provision. The scrutiny concerning perfect ways to stop, expose and indulge postpartum depression and analysis sometime also inspect the precipitate of postpartum depression for the child and mother in divergent racial and buoyant Huge, well-regulated protensively groups. especially estimate the cause of modules assuring intervention on the women, child development and material-infant relation are urgently needed.

Between the factors linked to quality of food, healthiness behind it, lifestyle, exercise, bedtime position and athletics may influence postpartum depression. It was noticed that adequate expenditure of legumes, vegetables, fruits, seafood, olive oil and milk, dairy products, and nutritious variation may decrease postpartum depression by 50% [9].

Vitamin B6 is successful in manufacture of serotonin from tryptophan as a cofactor. Hence, the decrease of this vitamin may be incriminated in the procedure of postpartum depression. In one study, the absolute relationship among the layers of vitamin B2 absorption at week 21 of pregnancy and the postpartum depression has

been announced. The ecological study result from 23 countries shows that gained seafood exhaust and other junk food are identical with increased exposure to postpartum depression.

The social-ecological study result on 23-24 countries advised that extra point of acid layers and greater sea food expenditure have being linked with decrease gamble of postnatal depression. Fish oil compound is found on this. Between the micronutrient, decrease in intake of zinc (Zn) and selenium is connected with the occurrence of postpartum depression. In a study it was reported that zinc is applied and it's antidepressant by influenced serotonin reuptake. The deficiency of selenium is likely to attack the postnatal depression by evolving "Thyroid dysfunction". Zinc is found especially in red meat, meat, fish and/or grains.

In adding to nutritional status, lack of ample amount of sleep is between the factors strongly influencing the gamble of the depression. Moreover, effectual relation has been noticed among the percentage of jade and desolation level in days during carting. Periods of severe sleep loss have been announced in depressed women after the time of delivery. Chronic sleep deprivation work on glucose metabolism, inflammatory process, social communication, quality of life and mental health. In addition, delicate episode of sleep deprivation may affects the exemption and grow inflammatory markers like interleukin-6 and tumor necrosis factor. In contrast, these all inflammatory factors have been noticed in large amount in women with postpartum depression [10].

This are some proof to recommend physical activity and exercise have some compelling profit in decreasing depression symptoms. These are similar with medical profits. The centrist exercise in the third trimester of the women's child bearing help to low down postpartum depression scale at 6 weeks after the birth is completed.

Intertwined rings are created with living aspects and cordial aspects this prepare women liable to postpartum depression by influencing one and all. Reported to the conclusion of this module, various environmental factors and environmental factors, like lifestyle-related factors, are linked in the prevalence or avoidance of postpartum depression by virtue of forthright and oblique bounce on the level of serotonin in the brain its function. Moreover, the environmental factors like wise social economic factors cause crisis

situation and postpartum depression conditioning mental health at the time of birthgiving. Hence, postpartum depression avoidance programs require to concentrate on individual interpersonal relations to decrease domestic violence and grow social protections in addition to alter the lifestyle of women and grow their ability to cope with the crisis conditions. Furthermore, depending on the outcome of this research, the postpartum depression tools should concentrate on lifestyle and social factors and physical health conditions of the individual [11-12].

Physiotherapy and antidepressant medicine are prior treatment for per-partum depression. The first-line prior medication choice for women with delicate to balanced per-partum depression psychosocial psychological remains and psychotherapy. Specifically if the mothers are hesitant and feel awkward about to start on medication and are about to nurse the newborn. The moderate women are suggested a aggregate of therapy and antidepressant drugs to severe depression. The first choice are selective serotonin reuptake (SSRI). Regard inter changing to serotonin- norepinephrine reuptake inhibitors (SNRIs) or mirtazapine if SSRI inadequate. When adequate dosage is once attained, medical and mental treatment for 8-12 months continues to forbid reoccur of affection.

#### 5. CONCLUSION

Pharmacologic recommendation for the women under nourishment should self-involve consulting all the nourishment assets, the threat of antidepressive medicines or therapy use during lactation, and the threat of untreated illness. The treatment like repetitive transcranial magical stimulation (TMS) provides and various options for the women who are breastfeeding and are worried about their babies being exposed to medications. Mostly data used of sertraline for the avoidance and treatment of the postpartum depression. The threat of breastfeeding when taking serotonin reuptake inhibitors is enough reduced and women can be boosted to breastfeed when on anti-depressants. When 12 weeks complete CBT therapy was organized to be noticeable to both sertraline monotherapy and computer therapy. The group CBT monotherapy was organize the most accelerated initial gains after the startup of the treatment. Delayed treatment is an important factor to late recover in the duration of postpartum depression (PPD).

#### **CONSENT**

It is not applicable.

### ETHICAL APPROVAL

It is not applicable.

#### **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

#### **REFERENCES**

- 1. Payne JL, Maguire J. Pathophysiological mechanisms implicated in postpartum depression. Frontiers in neuroendocrinology. 2019;52:165-80.
- Pearlstein T, Howard M, Salisbury A, Zlotnick C. Postpartum depression. Am J Obstet Gynecol. 2009;200(4):357-64.
  - DOI: 10.1016/j.ajog.2008.11.033.
- Brummelte S, Galea LA. Postpartum depression: Etiology, treatment and consequences for maternal care. Hormones and behavior. 2016;77:153-66. DOI: 10.1016/j.yhbeh.2015.08.008. Epub 2015 Aug 28
- 4. Pérez F, Brahm P. Depresión posparto en padres: por qué también es importante?. Revista chilena de pediatría. 2017;88(5): 582-5.
  - DOI: 10.4067/S0370-41062017000500002
- Dinwiddie KJ, Schillerstrom TL, Schillerstrom JE. Postpartum depression in adolescent mothers. Journal of Psychosomatic Obstetrics & Gynecology. 2018; 39(3):168-75.

DOI: 10.1080/0167482X.2017.1334051 Epub 2017 Jun 2.

- 6. Falana SD, Carrington JM. Postpartum depression: are you listening?. Nursing Clinics. 2019;54(4):561-7. DOI: 10.1016/j.cnur.2019.07.006. Epub 2019 Oct 10.
- 7. Kroska EB, Stowe ZN. Postpartum depression: identification and treatment in the clinic setting. Obstetrics and Gynecology Clinics. 2020;47(3):409-19. DOI: 10.1016/j.ogc.2020.05.001
- 8. Li G, Qi X, Tan X, Wu M, Wang H, Wang X, Sun J, Li Y, Wen P, Huang X. Effect of epidural labor analgesia on postpartum depression and maternal and infant outcomes in parturients with gestational diabetes mellitus--- A prospective cohort study.
- 9. Okun ML. Sleep and postpartum depression. Current Opinion in Psychiatry. 2015;28(6):490-6. DOI: 10.1007/s11920-016-0705-2.
- Singh K, Singhal S, Acharya N, Acharya S, Shukla S. Posterior reversible encephalopathy syndrome presenting as atypical eclampsia and postpartum status epilepticus. Medical Science. 2020; 24(103):1217-21.
- 11. Bhatia A, Bhagwat A, Acharya S, Bhawane A, Acharya N. Postpartum Haemolytic Uremic Syndrome (PHUS) with Posterior Reversible Encephalopathy Syndrome (PRES) Complicating Pregnancy: A Rare Case Report. Journal of Clinical & Diagnostic Research. 2019;13(4). Available:https://doi.org/10.7860/JCDR/2019/40900.12748.
- Singhal S, Baheti A, Singh K, Acharya S, Acharya N. Cortical blindness in posterior reversible encephalopathy syndrome in postpartum eclampsia. Indian Journal of Medical Specialities. 2019;10(4):229. Available:https://doi.org/10.4103/INJMS.IN JMS 123 19.

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