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Review Article

Perinatal depression and suicidal behaviour: the need for timely intervention

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ABSTRACT

This review examines perinatal depression, including antenatal (pregnancy-related) and postnatal (after childbirth) depression. It highlights their prevalence, risk factors, symptoms, and impacts on women and families, such as premature birth and significant maternal mental health issues. Causes include environmental stressors, genetic predisposition, and hormonal changes. The review distinguishes between temporary "baby blues" and prolonged postnatal depression influenced by social, psychological, and biological factors. Risk factors include negative family dynamics, a history of mental health issues, and lack of social support. Emphasizing the need for timely intervention and comprehensive mental health care, this review used a comprehensive search strategy across databases like PubMed, Google Scholar, Scopus, and more. Keywords related to perinatal depression were used for screening abstracts and titles, with full-text articles assessed for eligibility. Quality was evaluated using tools like the Newcastle-Ottawa scale (NOS) and the critical appraisal skills programme (CASP). Findings highlight the importance of regular mental health screenings, psychotherapeutic approaches, pharmacological treatments, and robust support systems. Understanding the interactions between biological, psychological, and social factors in perinatal depression is crucial for improving maternal and fetal health outcomes.

Keywords: Perinatal depression, Suicidal behaviour, Timely intervention

INTRODUCTION

Perinatal depression refers to a group of depressive disorders occurring during pregnancy or after childbirth during the first year.[1] It is deemed to be a grave illness that can significantly impact the health of the mother and the baby as well.[1,2] Prenatal depression pertains to the mental health of a woman during pregnancy, while postnatal depression refers to conditions that affect women after giving birth.[3,4]

One of the clinical depressions diagnosed during pregnancy is perinatal depression or pregnancy. Its impact may be pretty harsh for both the expectant mother and her fetus in her womb.[1] Because of fluctuation of hormonal levels in pregnant women, depressive illness can rise; however, antenatal depression is experienced if genetic and environmental condition is involved that contributes to abnormal hormonal level.[5] Some of the some of the potential symptoms of antenatal depression that the pregnant women experience are depression, anxiety, loss of energy or fatigue, changes in body weight, and loss of interest in some activities, including those, which might have been pleasurable.[6]

Antenatal depression affects the woman deeply, but it also has serious repercussions for her family and significant other. It can also impact the physical wellbeing of the

mother hence they are likely to receive inadequate prenatal care, have a poor diet, turn to drugs/alcohol and most likely suffer from postnatal depression. If a woman gets depressed during pregnancy, there are adverse effects that may impune the fetus, including premature birth and low birth weight, and developmental problems. Antenatal depression then puts pressure on the baby that then affects the growth of the brain and any future cognitive or emotional ability.[9,10]

PPD, or postnatal depression is a type of clinical depression which affects parents, mainly mothers, after delivery.[11] While baby blues were transient and lasted for as long as two weeks since the time of delivery and was characterized by mood swings, crying spells, anxiety, and insomnia, postpartum depression is much more acute and persistent. It may begin within a few weeks post-delivery but it may also occur later-on, even until as late as one year after delivery.[12]

Even though, the exact cause of postpartum depression cannot be described in detail, it is assumed that hormonal, psychological, and social factors are responsible for the development of postpartum depression.[13] Primi-mothers also have to undergo significant hormonal changes, for example oestrogen and progesterone do decrease rapidly soon after childbirth, which can be held responsible for mood swings.[14]

Also, the physical and psychological stress from and after labor, lack of sleep, and challenges of a newborn are some contributing factors that may lead to PPD.[15] Some of the risk factors include previous or family history of depression, isolation, marital issues, and antenatal or intrapartum complications.[4,16,17]

Approximately 10–20% of women worldwide are thought to suffer from depression during pregnancy or the first year after giving birth.[18,19] Perinatal depression usually affects 7–20% of babies in high-income nations.[20] In India, the prevalence of prenatal depression typically falls between 10% and 30%, while other studies have found significantly higher percentages in particular groups.[21,22]

METHODS

Identification

This narrative review was conducted using a comprehensive search strategy involving multiple electronic databases such as PubMed, Google Scholar, Scopus, and ResearchGate. In addition to these databases, textbooks and expert reports on perinatal depression were reviewed to ensure a wide-ranging inclusion of relevant information.

To capture a broader range of studies, additional databases like PsycINFO, CINAHL, and the Cochrane library were included. All sources were the latest editions or most current information available.

Screening

The search strategy involved using specific keywords related to perinatal depression, including "prenatal depression," "postnatal depression," "biological factors," "psychological factors," and "environmental determinants." Abstracts and titles were screened to identify relevant studies. A predefined set of inclusion and exclusion criteria was established to ensure consistency. Two independent reviewers conducted the screening to minimize selection bias. The process of study selection, from identification through inclusion, was visually represented using a PRISMA flow diagram.

Eligibility

Full-text articles were assessed for eligibility. Inclusion criteria encompassed recent publications, peer-reviewed journals, and authoritative sources. Studies examining hormonal changes, mental health history, and social support were prioritized to provide a comprehensive understanding of the topic. Inter-rater reliability between reviewers was assessed for study inclusion to ensure consistency. Gray literature, including theses, dissertations, and conference abstracts, was considered to cover more sources of evidence. The quality of included studies was evaluated using standardized quality assessment tools like the Newcastle-Ottawa scale (NOS) and the critical appraisal skills programme (CASP).

Included

A standardized form was used for detailed data extraction, capturing specific details about study design, population, interventions, and outcomes. Subgroup analyses were conducted to identify how different factors (e.g., geographical region, socio-economic status) influenced the outcomes. The review synthesized findings on preventive measures and interventions, such as mental health screening, psychotherapeutic approaches, pharmacological treatments, and the importance of robust support systems. The global and regional perspectives were considered to highlight differences in prevalence and challenges in high- and low-income settings (Figure 1).

Onset of depression in pregnancy

It is a very complex and biased phenomenon by various biological, psychological, and social factors.[23,24] Depressive psychoses are precipitable at any time in pregnancy but mainly occur during first and third trimesters of pregnancy.[25]

Biologically, pregnancy goes along with significant hormonal changes that may influence activity of neurotransmitters and emotional control.[26] Modulation in oestrogen and progesterone can predispose further to emotional lability and depression.[27] Physiological factors such as fatigue, nausea, and pain may further contribute to feelings of depression.[28]

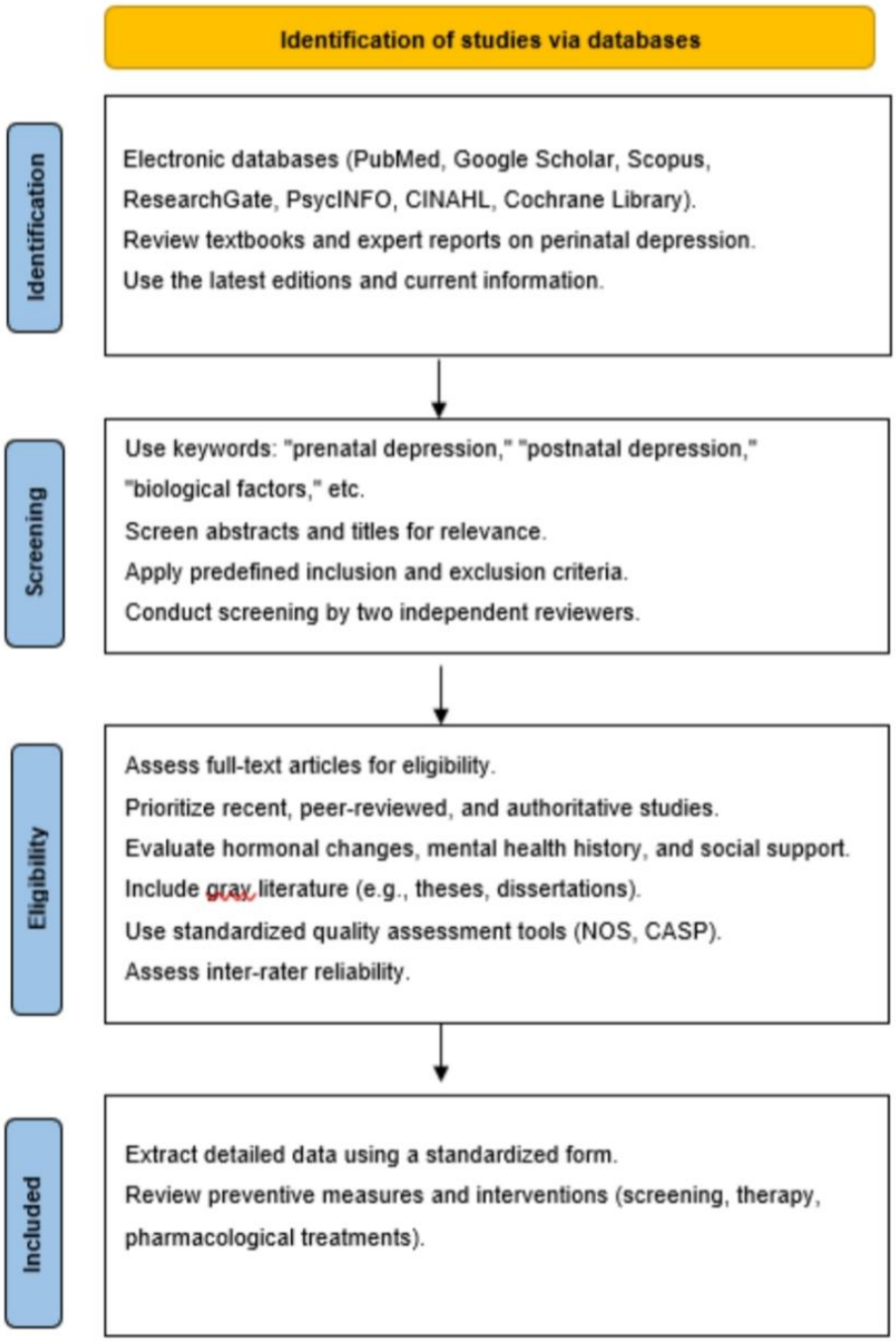

Figure 1: PRISMA flowchart.

Depression during pregnancy is also greatly influenced by psychological variables. For many women, it is a period of significant psychological change and adjustment.[29] Women's anxiety and stress levels tend to rise in response to the joy of motherhood, concerns about the baby's health, changes in body image, and delivery-related difficulties.[30] Prenatal depression is more common in mothers with a history of depression or any other mental illness.[1]

Environmental and societal factors are also important determinants. This level of stress and loneliness can be significantly exacerbated by a lack of social support from friends, family, or a partner.[31] Other issues that could exacerbate the risk of depression include financial concerns, relational troubles, and a home setting that's unsupportive or abusive.[32] The stress of pregnancy and mothering placed by societal expectations and cultural norms added to the already frail state has amplified the feelings of inadequacy.[33]

ASSOCIATION OF PERINATAL DEPRESSION

Family factors

A supportive family environment is an extremely important protective factor.[34] Emotional, practical, and

monetary support from a partner, family members, and close friends greatly decreases the risk of developing perinatal depression.[35] An active, sensitive, and supportable partner who participates actively in pregnancy and early childcare can help to "buffer" stress and anxiety connected with the perinatal period.[36] Such traits as trusting and open communication, sharing responsibilities, and a caring relationship provide safety and security, which have high significance in the maintenance of good maternal mental health.[37]

On the other hand, an unsupportive or negative relationship within the family can worsen perinatal depression.[38] Conflicts in a relationship, domestic violence, or an unsupportive partner increases the levels of stress and the feeling of loneliness.[39] Women who are being abused are also easily affected by perinatal depression because of chronic stress or trauma due to abuse and its potential effects on mental health.[40] Unrealistic expectations by family members towards roles and responsibility of a mother also increase pressure and feelings of inadequacy or guilt.

Family history of psychiatric disorders

Family history of depressive or other psychiatric disorders is deemed another important risk factor. Perinatal depression is significantly more likely to occur in women with a family history of mental illness or depression.[41] Environmental pressures within the family can trigger a genetic susceptibility, resulting in depressive episodes during the prenatal period.[4]

Pre-existing mental disorder

Biologically, a history of pre-existing psychiatric disorders is considered as a marker of liability to mood disorders and affective dysregulation.[42] Depression or other mental health disorders, anxiety disorders, bipolar disorder, or any of a host of other psychiatric illnesses render women much more sensitive to hormonal fluctuations, stress and physiological changes related to pregnancy and the postpartum.[43,44]

This has been shown to connect anomalies of brain structure and function, which would suggest long-term consequences for both the mother and the child. Neuroimaging studies of women diagnosed with perinatal depression reveal abnormalities in areas related to emotion regulation, cognitive functions, and stress response in most cases. For instance, it was only very recently established that gray matter volume is decreased within regions in the prefrontal cortex and hippocampus of women diagnosed with postpartum depression.[10,45]

Women age

The relationship between age and perinatal depression is multifaceted and influenced by biological, psychological, and social factors.[5]

Younger mothers

Young mothers, particularly adolescents, are at a higher risk of experiencing perinatal depression.[6] Several reasons contribute to this increased vulnerability.

Psychosocial stressors

Younger women are characterized by extraordinary changes and stressors in life, like constant education, instability of finances, and lack of stable relationships. Such psychosocial stressors often increase the risk for depression.[48]

Insufficient social support

Young mothers can face shortcomings in social support by family, friends, or partners, which plays an important role in emotional needs before delivery and after birth.[49]

Hormonal alterations adaptation

Sometimes, the adolescents undergo a more acute hormonal shift and that increases mood lability associated with depressive symptoms.[50]

Inexperience and fear

First-time mothers are less likely to have reported feeling prepared for motherhood and therefore more fearful and clinically depressed.[51]

Older mothers

Older mothers, particularly those over the age of 35, also face unique challenges that can elevate the risk of perinatal depression.[7]

Biological risks

An increased risk of pregnancy problems is linked to older mothers, such as gestational diabetes, preeclampsia, and preterm birth, which can contribute to increased stress and depressive symptoms.[8,9]

Role strain

It is the dual challenge that older mothers face in combining duties of a career with new demands of motherhood by risking high levels of stress and depression.[10]

Previous pregnancy losses

Older women might have had miscarriages in the past or had difficulty conceiving, which can exacerbate anxiety and depressive symptoms during a later pregnancy.[11]

Social expectations

There can be increased societal pressure on older mothers regarding their health and the health of their baby, contributing to anxiety and depressive symptoms.[12]

SUICIDAL IDEATION IN PREGNANCY

Antenatal period

Mothers who have perinatal depression are more disposed toward suicidal behaviours.[57] Perinatal depression refers to depression that arises during the pregnancy periods and postpartum periods; it often has hazardous outcomes on the mental status of mothers and places them on a higher risk of suicide thinking and actions.[1]

Suicide is a serious issue of that gestation period that highlights an imperative requirement for mental health awareness and intervention among pregnant women.[58] It would be very difficult to commit suicide while pregnant.

Other factors related to stigma connected to it decrease candid disclosure, and it's not reported. In many regions of the world, it was one of the primary causes of maternal mortality.[59]

RISK FACTORS AND CONTRIBUTING FACTORS

Several factors contribute to the elevated risk of suicidal behaviour among mothers with perinatal depression.

Severity of depression

Suicidal thoughts and actions can be more likely in those with severe depression symptoms, which include intense emotions of worthlessness, despair, and hopelessness.[1]

Anxiety and stress

High levels of anxiety, often present alongside depression, can exacerbate feelings of overwhelm and hopelessness, leading to suicidal ideation.[60]

Lack of social support

Suicide risk can rise as a result of increased emotions of loneliness and isolation brought on by a lack of social support from friends, family, and partners.[13]

History of mental health issues

Suicide ideation during the perinatal period is more likely to occur in women who have a history of depression, anxiety, or suicide behaviour.[14]

Hormonal changes

The hormonal changes that occur during pregnancy and the postpartum period might affect mood regulation and exacerbate symptoms of depression and suicidality.[15]

Life stressors

Financial difficulties, relationship problems, and other significant life stressors can increase the risk of suicidal behaviour in mothers with perinatal depression.[16]

Mental health disorders

Women with pre-existing mental health conditions, particularly depression, anxiety, bipolar disorder, and previous suicide attempts, are at higher risk.[17]

Psychosocial stressors

Suicidal thoughts and actions can be made more likely by unintended pregnancies, relationship problems, domestic abuse, a lack of social support, financial hardships, and other major life pressures.[18]

Hormonal changes

Pregnancy involves substantial hormonal fluctuations, affecting mood and emotional stability. These changes can exacerbate underlying mental health conditions.[15]

Substance abuse

Alcohol and drug misuse, as well as other substance use disorders, are linked to a higher risk of suicide behaviour.[19]

Trauma and abuse

Having a history of trauma, such as intimate partner violence or childhood abuse, increases the likelihood of suicide behaviour during pregnancy.[20]

WARNING SIGNS

Recognizing the warning signs of suicidal ideation in pregnant women is crucial for timely intervention. Some potential indicators include - persistent sadness or depression, expressions of hopelessness or worthlessness, withdrawal from social interactions and activities, changes in sleep or eating patterns, increased use of alcohol or drugs, talking about death or suicide, giving away possessions or settling affairs.[21]

POSTNATAL PERIOD

Generally, the postnatal period as broadly defined to be a year following delivery is also very dangerous with many physical, emotional, and social changes occurring in new mothers. On general grounds, suicide is part of the major causes of death among new mothers during the postnatal period although it is rare.[22]

RISK FACTORS FOR POSTNATAL SUICIDE

Several factors contribute to the risk of suicide during the postnatal period.

Postpartum depression

One of the most significant risk factors, PPD affects approximately 10-20% of new mothers. Symptoms include severe sadness, anxiety, irritability, and feelings of hopelessness, which can increase the risk of suicidal thoughts and behaviours.[23,24]

Postpartum psychosis

Although rare, this severe mental health condition can emerge suddenly after childbirth. It includes symptoms like delusions, hallucinations, and extreme mood swings and is strongly associated with an increased risk of suicide and infanticide.[25]

History of mental health issues

Postpartum suicidal behaviour is more likely to occur in women who have a history of depression, anxiety, bipolar disorder, or prior suicide attempts.[26]

Lack of social support

Inadequate emotional and practical assistance from friends, family, and partners can make depressing and lonely feelings worse.[27]

Life stressors

Financial difficulties, relationship problems, single parenthood, and other significant stressors can increase vulnerability to suicidal ideation.[28]

Substance abuse

Substance use disorders, including alcohol and drug abuse, can heighten the risk of suicidal behaviour during the postpartum period.[29]

Trauma and abuse

Significant risk factors include past trauma histories, such as intimate partner violence or childhood abuse.[30]

WARNING SIGNS

Early warning signs of suicidal ideation in the postpartum woman is identified as critical for early intervention.[69] Those signs could be: continued depression or sadness, hopelessness, or self-pitying; withdrawal from social life and activity, changes in sleeping and eating habits, increase drug or alcohol use, talking about suicide or death, giving away possessions or settling affairs, extreme anxiety, or panic attacks, and inability to form attachment towards the baby.[24]

PREVENTION AND INTERVENTION OF WOMEN WITH PERINATAL DEPRESSION SUICIDAL IDEATION

Addressing the risk of suicide during the postpartum period requires a comprehensive approach involving healthcare providers, mental health professionals, and social support systems. Key strategies include:

Routine screening

The postpartum visits must include routine mental health screening by the providers. This must be assessment for depression, anxiety, substance abuse, and suicide ideation using standardized screening instruments; for example, the Edinburgh postnatal depression scale (EPDS).[31]

Mental health services

Availability of mental health services is the key as the form of counselling, psychotherapy, and psychiatric treatment. Cognitive-behavioural therapy (CBT) and interpersonal therapy (IPT) are effective in treating postpartum depression and suicidal thoughts.[32]

Medication management

Even in major depression, antidepressive medication is sometimes necessary to prevent an attempt at suicide; thus, risks and benefits of breastfeeding must be weighed for mothers who are breastfeeding.[33-35]

Crisis intervention

Immediate intervention, including hospitalization or intensive outpatient treatment, may be necessary for those women who are at a high risk of suicide.[36]

Strengthening social support

Encouraging strong support networks from family, friends, and community resources can provide emotional and practical support for new mothers.[37]

Education and awareness

Educating new mothers and their families about the signs of postpartum depression and suicidal ideation can promote early detection and intervention.[38]

Support groups

For new mothers, peer support groups can lessen feelings of loneliness by fostering a sense of belonging and shared experiences.[37]

Addressing substance abuse

Providing resources and support for substance abuse treatment can reduce the risk of suicidal behaviour.[39]

Domestic violence support

Screening for domestic violence and providing appropriate resources and interventions can help protect new mothers from abuse and associated mental health issues.[40]

Lifestyle interventions

Regular physical activity, like walking, yoga, or swimming, helps improve mood and reduce stress due to endorphins, natural mood elevators.[41] Proper nutrition from foods filled with omega-3 fatty acids, vitamins, and minerals such as fruits, vegetables, lean proteins, and whole grains also contributes to good mental health.[42] Adequate and quality sleep is accomplished through habits that include a regular sleep schedule, a restful sleep environment, and management of common sleep disruptions.[41]

Further still, techniques such as mindfulness and relaxation, yoga, meditation, and deep-breathing exercises would all help manage stress and anxiety for general well-being.[42]

Telemedicine

Distant therapy allows flexibility of access to mental health practitioners by any video call, phone consultation, and other related online avenues, which is convenient for new mothers.[43] In addition, online support groups offer a virtual community where experiences can be shared through conferencing, peer support and advice.[44]

Peer support

Group therapy sessions provide new mothers with a supportive forum for discussing experiences and challenges, thus creating community. Matching programs team inexperienced mothers with experienced mothers who can provide guidance, emotional support, and practical advice.[45]

Pharmacologic agents

Neuroactive steroids: new drugs like brexanolone which are shown promise in the treatment of postpartum depression in patients refractory to antidepressants.[46]

.Postvention programs

Supporting families and communities touched by suicide, so they can heal and move forward and deter others from committing suicide. Counselling sessions help heal and prevent further mental health crises.[47]

High-tech solution

Mental health apps offer resources, self-help tools, and crisis intervention features to keep track and support users nonstop. Online platforms allow digital communities for people to connect, share experiences, and obtain mental health resources.[48]

Gatekeeper training

Training community members about signs of suicidal behaviour and ensuring them to give initial support and implementing suicide prevention programs within a workplace supports mental health because it outfits people with knowledge and resources to assist.[49]

Policy change

Policies to restrict access to lethal means, such as firearms and medications, can reduce suicides. Comprehensive mental health care coverage reduces financial barriers, improving access to necessary treatment and support.[50]

CONCLUSION

The well-being of women and their families is significantly impacted by perinatal depression, a serious and complicated mental health condition that includes both prenatal and postnatal depression. Depression during pregnancy and the postpartum period is a complex issue that requires attention since it is impacted by a wide range of biological, psychological, and social factors. For effective therapy and early intervention, it is essential to identify the symptoms and risk factors, which include hormonal changes, pre-existing mental health issues, a lack of social support, and family dynamics.

Globally, postpartum depression prevalence varies, with greater rates seen in low- and middle-income nations because of extra stressors such restricted access to social support and healthcare. Pregnant women of all ages may be more susceptible to depression due to the particular difficulties they confront.

A serious issue that emphasizes the necessity of thorough mental health screening and support networks for pregnant and new moms is suicidal ideation throughout pregnancy and the postpartum phase. In order to reduce the risks of prenatal depression, preventative measures and interventions are crucial. These include regular mental health examinations, access to counselling and psychiatric care, and robust social support networks.

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