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Research Article

Psychological Abnormalities in Pregnant Women: Prevalence, Risk Factors, Maternal and Foetal Consequences, Assessment, and Management

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Abstract

Pregnancy is often described as a joyful and meaningful stage of a woman's life. At the same time, it is a period of major physical, emotional, and social change. A woman may experience excitement about becoming a mother while also dealing with fear, uncertainty, physical discomfort, and changes in body image, concerns about the baby, financial responsibilities, and changes in family relationships. For some women, these challenges can become overwhelming and may contribute to significant psychological difficulties during pregnancy. Depression, anxiety, excessive stress, fear of childbirth, trauma-related symptoms, obsessive thoughts, and, in some cases, more severe psychiatric conditions may occur during the antenatal period.

Psychological problems during pregnancy are sometimes missed because several symptoms of depression and anxiety—such as tiredness, poor sleep, changes in appetite, and reduced energy—can also occur during a normal pregnancy. This makes it particularly important for healthcare professionals to look beyond physical health and ask women about their emotional well-being. According to the World Health Organisation (WHO, 2022), approximately 10% of pregnant women worldwide experience a mental disorder, with the burden being greater in low- and middle-income countries. Indian studies have reported wide variations in the prevalence of antenatal depression and anxiety, reflecting differences in populations, assessment methods, and social circumstances.

A woman's psychological health during pregnancy can influence her daily functioning, relationships, self-care, antenatal care, and overall pregnancy experience. Psychological difficulties have also been associated with adverse pregnancy and birth outcomes. Early identification through appropriate screening, supportive communication, counselling, psychotherapy, and medication when clinically indicated can help reduce suffering and improve maternal and child health. A compassionate, culturally sensitive, and multidisciplinary approach is therefore essential.

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INTRODUCTION

Pregnancy is much more than a physical process. It is a major life transition that affects almost every aspect of a woman's life. Along with the physical changes associated with pregnancy, women have to adjust emotionally to becoming a mother, think about the health of their unborn baby, adapt to changes in their body, and prepare for new responsibilities. Family relationships, financial circumstances, work, and expectations about childbirth may also change during this period.

For many women, these changes are manageable. However, pregnancy can also make some women more vulnerable to psychological difficulties. Antenatal mental health problems include depression, anxiety, stress, pregnancy-related fears, trauma-related symptoms, and other psychiatric conditions. These problems should not be considered a sign of weakness or an inability to cope. They are genuine health conditions that can be identified and treated.

The WHO estimates that around 10% of pregnant women worldwide experience a mental disorder, with a higher proportion reported in developing countries. Evidence from India also suggests that antenatal depression and anxiety are important concerns. A systematic review of Indian studies reported depression rates ranging from 3.8% to 65% and anxiety rates from 13% to 55%. Such wide differences are likely related to variations in study populations, geographical locations, screening tools, diagnostic criteria, and socioeconomic circumstances (Avasthi et al., 2023).

The importance of maternal mental health becomes clearer when we consider its relationship with physical health. A woman who is depressed or highly anxious may find it difficult to eat properly, sleep adequately, remain physically active, attend regular antenatal appointments, or follow medical advice. She may also withdraw from family members and experience difficulty preparing emotionally for childbirth. For these reasons, mental health should be considered an essential part of antenatal care rather than something that is addressed only when a serious problem develops.

Psychological Changes during Normal Pregnancy

It is important to understand that not every emotional change during pregnancy represents a psychological disorder. Pregnancy naturally brings emotional ups and downs. A woman may feel happy and excited one day and worried or irritable the next. Concerns about the baby, changes in appearance, uncertainty about childbirth, and fear of possible complications are understandable experiences.

During the **first trimester**, women may have to adjust to the reality of pregnancy while simultaneously dealing with nausea, vomiting, fatigue, hormonal changes, and uncertainty about the health of the pregnancy. Women who have previously experienced miscarriage or infertility may understandably feel especially anxious.

During the **second trimester**, some physical symptoms may become easier to manage. Feeling the baby move can provide reassurance and strengthen the emotional connection between the mother and foetus. However, worries about foetal development, changing body image, family relationships, finances, and future responsibilities may continue.

During the **third trimester**, attention often shifts toward childbirth. Women may worry about labour pain, possible complications, the health of the baby, breastfeeding, and whether they will be able to manage the responsibilities of motherhood. For some women, fear of childbirth becomes intense enough to interfere with everyday life. Severe fear of childbirth is often referred to as *tokophobia*.

The key difference between normal emotional changes and psychological disorders is the degree and persistence of symptoms. Occasional worry or sadness is not necessarily a disorder. Concern becomes clinically important when symptoms are persistent, severe, because substantial distress, interfere with daily functioning, or create safety concerns for the mother or foetus.

Major Psychological Abnormalities during Pregnancy

Antenatal Depression

Depression is one of the most important mental health problems that can occur during pregnancy. A pregnant woman experiencing depression may feel persistently sad, hopeless, guilty, worthless, or emotionally empty. She may lose interest in activities that previously brought her pleasure. Difficulty concentrating, changes in sleep or appetite, extreme tiredness, and thoughts of death or self-harm may also occur.

One of the challenges in identifying depression during pregnancy is that some symptoms can look like ordinary pregnancy complaints. For example, a woman may feel tired or sleep poorly because of physical discomfort, while these same symptoms can also be part of depression. Healthcare professionals therefore need to consider the overall pattern of symptoms rather than focusing on one complaint in isolation.

Research has identified several factors associated with antenatal depression, including previous mental health problems, exposure to violence, poor social support, and relationship difficulties (Fekadu Dadi et al., 2020). In India, marital conflict, poor relationships with husbands or in-laws, lack of social support, previous abortions, intimate partner violence, and cultural preference for a male child have been reported as important factors (Avasthi et al., 2023).

Depression can affect how a woman looks after herself and may reduce her motivation to attend antenatal appointments or follow health recommendations. In severe cases, suicidal thoughts may occur and require immediate professional attention.

Anxiety during Pregnancy

Anxiety is another common psychological concern during pregnancy. It is natural for a pregnant woman to worry occasionally about her baby or the upcoming birth. However, when worry becomes excessive, persistent, and difficult to control, it may indicate an anxiety disorder.

Pregnant women may worry about miscarriage, foetal abnormalities, childbirth, labour pain, their own health, finances, parenting ability, or changes in their relationship. Physical symptoms can include restlessness, irritability, poor concentration, disturbed sleep, muscle tension, palpitations, breathlessness, and panic attacks.

Anxiety during pregnancy deserves attention because research has linked significant antenatal anxiety with outcomes such as preterm birth and low birth weight. However, these relationships are complex and should not be interpreted as meaning that anxiety alone causes these outcomes (Ding et al., 2014; Grigoriadis et al., 2018).

Psychological Stress

Some level of stress is a normal part of life, particularly during a major transition such as pregnancy. However, continuous or overwhelming stress can negatively affect a woman's emotional and physical well-being.

Pregnancy-related stress may arise from financial problems, work-related pressures, relationship difficulties, domestic violence, and inadequate social support, housing problems, medical complications, or fear about childbirth and parenting. Persistent stress can contribute to headaches, tiredness, irritability, poor concentration, sleep problems, and reduced quality of life. It may also occur alongside depression and anxiety.

It is important not to use the terms stress, anxiety, and depression as though they mean the same thing. Although they frequently overlap, they represent different psychological experiences and should be assessed appropriately (Accortt et al., 2015).

Fear of Childbirth and Tokophobia

Most pregnant women have some concerns about childbirth. Some may worry about pain, complications, or whether the baby will be healthy. For a smaller group of women, however, this fear becomes so intense that it affects their everyday lives. This severe fear is commonly known as tokophobia.

A woman with severe childbirth fear may worry about losing control, experiencing unbearable pain, requiring an emergency caesarean section, being injured, or losing her baby. Women who have experienced a traumatic birth previously may be particularly vulnerable.

Understanding the source of the fear is important. Appropriate childbirth education, counselling, relaxation techniques, psychological therapy, and supportive communication can help women feel more confident and prepared.

Post-Traumatic Stress Symptoms

Pregnancy can also bring back memories of previous traumatic experiences. These may include domestic or sexual violence, miscarriage, stillbirth, infertility treatment, or a traumatic previous childbirth.

A woman may experience intrusive memories, nightmares, avoidance, heightened alertness, emotional distress, or strong physical reactions when reminded of the traumatic event. A previous traumatic birth can make a subsequent pregnancy particularly stressful.

For this reason, healthcare professionals should create a safe and respectful environment where women feel comfortable discussing traumatic experiences. A trauma-informed approach is especially important because some routine examinations or procedures may unexpectedly remind women of previous trauma.

Obsessive-Compulsive Symptoms

Some women experience intrusive and unwanted thoughts during pregnancy. They may worry repeatedly about contamination, accidentally harming the baby, or failing as a mother. In some cases, these thoughts are accompanied by repetitive behaviours such as excessive checking, washing, or repeatedly seeking reassurance.

It is important to understand that having an unwanted intrusive thought does not necessarily mean that a woman wants to act on it. Nevertheless, healthcare professionals should explore the frequency and intensity of these thoughts, the distress they cause, and whether they are associated with compulsive behaviours.

Bipolar Disorder

Pregnancy can be particularly challenging for women with a previous diagnosis of bipolar disorder. Healthcare professionals should ask about previous episodes of depression, mania, or hypomania.

This history is especially important when treatment for depression or anxiety is being considered. ACOG recommends assessing for bipolar disorder before beginning pharmacological treatment for depression or anxiety when it has not previously been evaluated, because antidepressant treatment alone may worsen bipolar symptoms in some individuals (ACOG, 2023).

Psychosis and Severe Mental Illness

Psychotic disorders during pregnancy are uncommon but can be extremely serious. Symptoms may include hallucinations, delusions, severely disorganized behaviour, or a significant loss of contact with reality.

Women with a previous history of psychotic illness require careful monitoring during pregnancy. When severe psychiatric symptoms occur, urgent specialist assessment is necessary because both maternal and foetal safety may be affected.

Factors That Increase Psychological Vulnerability

There is rarely one single reason why a woman develops psychological difficulties during pregnancy. More often, several biological, psychological, family, and social factors come together.

Previous Mental Health Problems

A previous history of depression, anxiety, bipolar disorder, post-traumatic stress disorder, or another psychiatric condition can increase vulnerability during pregnancy. Women who

experienced mental health difficulties during an earlier pregnancy or after childbirth may require closer monitoring.

Biological and Hormonal Changes
Pregnancy involves major hormonal changes, particularly changes in estrogen and progesterone. These changes can influence mood and interact with the brain's systems involved in emotional regulation. However, hormonal changes alone do not explain why one woman develops a psychological disorder while another does not.

Lack of Social Support
A supportive partner, family, friends, and community can make a major difference during pregnancy. Having someone to talk to, share responsibilities with, or turn to during difficult moments can reduce emotional burden. On the other hand, loneliness and lack of support can increase vulnerability.

Marital and Family Problems
Pregnancy can sometimes expose or intensify relationship difficulties. Conflict with a partner, poor communication, lack of emotional support, or problems with other family members may contribute to anxiety and depression. Indian research has particularly highlighted relationship difficulties with husbands and in-laws as relevant factors (Avasthi et al., 2023).

Intimate Partner Violence
Physical, emotional, or sexual violence can have serious consequences for maternal mental health. Women experiencing violence may develop depression, anxiety, trauma-related symptoms, and persistent fear. It can also create an unsafe environment for both the mother and foetus.

Financial Difficulties
Money-related concerns can become especially stressful during pregnancy. Medical expenses, loss of income, employment insecurity, housing difficulties, and concerns about supporting a child may contribute to psychological distress.

Obstetric Problems
Women with high-risk pregnancies, severe nausea and vomiting, pregnancy complications, previous miscarriage or stillbirth, infertility, or concerns about foetal abnormalities may experience greater psychological distress.

Unplanned Pregnancy
An unintended pregnancy may be particularly difficult when a woman is already facing relationship, financial, educational, or social problems. In such circumstances, psychological distress may be greater, especially when adequate support is not available.

Cultural Expectations
Cultural beliefs can also influence maternal psychological well-being. In some communities, expectations concerning the sex of the baby can create considerable pressure. Indian research has identified preference for a male child as one factor associated with antenatal depression and anxiety (Avasthi et al., 2023).

Impact on Maternal Health
Psychological problems can affect a woman's physical health and her ability to manage pregnancy. A woman experiencing depression or anxiety may lose motivation to maintain healthy eating habits, exercise appropriately, sleep adequately, take prescribed medication, or attend regular antenatal appointments.
Emotional distress can also affect relationships. Some women may withdraw from their partners or family members because they feel overwhelmed or misunderstood. Unfortunately, this withdrawal can reduce the very support that might otherwise help them recover.
When psychological difficulties remain untreated, they may continue after delivery. Identifying and treating these problems during pregnancy therefore provides an important opportunity to support both maternal and postpartum mental health.

Impact on Pregnancy and Birth Outcomes
Research suggests that maternal depression and anxiety may be associated with certain adverse pregnancy outcomes. Antenatal depression has been associated with increased risks of preterm birth and low birth weight, although the magnitude of these associations is generally modest (Fekadu Dadi et al., 2020). Anxiety has also been associated with preterm birth and low birth weight in systematic reviews (Ding et al., 2014; Grigoriadis et al., 2018).
There are several possible explanations for these relationships. Psychological distress may influence the hypothalamic-pituitary-adrenal axis, cortisol levels, autonomic nervous system activity, inflammation, sleep, health behaviors, and adherence to antenatal care. However, pregnancy outcomes are influenced by many factors, and psychological disorders should not be viewed as the sole cause of complications.

Impact on the Foetus and Child
Maternal psychological well-being may also influence foetal growth and the early environment in which the child develops. Research has examined relationships between maternal depression, anxiety, stress, foetal growth, and later child development. A systematic review found evidence linking prenatal maternal mental health problems with foetal growth outcomes, although findings differed across studies (Lewis et al., 2016).
After delivery, maternal psychological difficulties may affect breastfeeding, mother-infant interaction, emotional responsiveness, and the overall home environment. Persistent depression may make it difficult for a mother to feel emotionally available to her baby.
However, these findings should never be interpreted as meaning that a mother's psychological condition determines her child's future. Early recognition and appropriate treatment

can reduce maternal suffering and create a healthier environment for both mother and child.

Assessment and Screening
Mental health assessment should be a routine part of antenatal care. Women should be given opportunities to talk about how they are feeling rather than being asked only about physical symptoms.
ACOG recommends screening women for depression and anxiety during pregnancy and the postpartum period using validated tools, with systems in place for assessment, treatment, and follow-up (ACOG, 2023).

Edinburgh Postnatal Depression Scale
The Edinburgh Postnatal Depression Scale (EPDS) is a widely used 10-item screening tool for perinatal depression. It includes questions related to mood and anxiety and specifically asks about thoughts of self-harm. A high score does not itself establish a diagnosis; instead, it indicates that further clinical assessment is needed.

Patient Health Questionnaire-9
The Patient Health Questionnaire-9 (PHQ-9) is a nine-item questionnaire used to assess depressive symptoms. It covers depressed mood, loss of interest, sleep problems, tiredness, appetite changes, concentration problems, psychomotor symptoms, and suicidal thoughts.

Generalized Anxiety Disorder-7
The Generalized Anxiety Disorder-7 (GAD-7) is a seven-item screening tool that can help identify clinically significant anxiety symptoms, particularly excessive and difficult-to-control worry.

Clinical Assessment
Screening questionnaires are useful, but they cannot replace a clinical conversation. When screening identifies possible psychological difficulties, the healthcare professional should explore the duration and severity of symptoms, previous mental health history, medical conditions, medication use, substance use, family circumstances, social support, and safety concerns.
Any indication of suicidal thoughts or self-harm requires immediate and appropriate assessment.

Management
Treatment should be based on the woman's individual needs. The severity of symptoms, type of psychological disorder, stage of pregnancy, medical history, personal preferences, and available social support should all be considered.

Psycho education
One of the simplest but most important interventions is helping women understand that psychological difficulties during pregnancy are real health conditions and are not a personal failure. Families can also be educated about warning signs and ways they can provide emotional and practical support.

Psychological Therapy
Psychotherapy can be particularly helpful for women with mild to moderate depression or anxiety. Cognitive behavioural therapy can help women recognize unhelpful patterns of thinking and develop more effective coping strategies. Interpersonal therapy may be useful when relationship problems, grief, or difficulties adapting to the transition into motherhood are contributing to distress.

Relaxation and Stress Management
Simple strategies such as breathing exercises, relaxation training, mindfulness, guided imagery, adequate sleep, appropriate physical activity, and maintaining a structured daily routine may help women manage stress and improve emotional well-being. Physical activity should always be individualized according to the woman's medical and obstetric condition.

Social Support
Emotional support can make pregnancy considerably easier to manage. Healthcare professionals should encourage women to seek support from trusted partners, family members, friends, community resources, or appropriate support groups.

Pharmacological Treatment
Some women require medication, particularly when depression, anxiety, bipolar disorder, or another psychiatric condition is moderate to severe. The decision to use medication during pregnancy should involve a careful discussion of the benefits and potential risks of treatment as well as the risks associated with leaving the mental health condition untreated.
ACOG emphasizes that clinically appropriate medication should not automatically be withheld simply because a woman is pregnant or breastfeeding. Treatment should be individualized and undertaken through informed discussion between the patient and healthcare professional (ACOG, 2023).

Multidisciplinary Care
Some women need support from more than one healthcare professional. Obstetricians, psychiatrists, psychologists, nurses, primary care professionals, physiotherapists, social workers, and other healthcare providers may all have a role depending on the woman's needs.
A multidisciplinary approach is particularly valuable when psychological symptoms occur alongside a high-risk pregnancy, chronic medical illness, domestic violence, substance use, or major social difficulties.

Role of Healthcare Professionals
Healthcare professionals have an important opportunity to identify psychological problems because pregnant women regularly interact with healthcare services. Mental health should therefore be discussed routinely rather than only when a woman appears severely distressed.
A supportive conversation can sometimes make a significant difference. Women should feel that they can talk honestly about

fear, sadness, relationship problems, or other concerns without being judged.

Healthcare professionals should:

- Ask routinely about emotional well-being.
- Identify previous mental health problems.
- Use appropriate validated screening tools.
- Assess psychosocial and family-related risk factors.
- Provide clear and reassuring psycho education.
- Encourage appropriate family and social support.
- Ask about self-harm or suicidal thoughts when indicated.
- Refer women for specialist assessment when necessary.
- Monitor treatment and recovery.
- Continue mental health follow-up after childbirth.

Prevention

Preventing psychological difficulties is not limited to treating symptoms after they appear. It should begin before pregnancy or as early as possible during pregnancy.

Women should receive information about emotional health, available support systems, healthy lifestyle practices, and the importance of seeking help when problems begin. Adequate nutrition, appropriate physical activity, sufficient sleep, stress management, regular antenatal care, and strong social support can all contribute to better psychological well-being.

Prevention also requires attention to wider social problems. Poverty, domestic violence, social isolation, and difficulty accessing healthcare can have a profound effect on maternal mental health. These issues cannot always be solved through individual counselling alone; broader social and healthcare support is often required.

Research Implications

There is a need for further research on psychological health during pregnancy, particularly in low- and middle-income countries. Indian studies have reported very different prevalence rates, suggesting that differences in screening methods, populations, and social environments need to be better understood.

Future studies should use standardized diagnostic approaches, culturally appropriate screening instruments, representative samples, and longitudinal designs. Research should also focus on interventions that integrate mental health support into routine obstetric services. More evidence is needed regarding how psychological interventions affect maternal quality of life, pregnancy outcomes, infant development, and long-term family functioning.

CONCLUSION

Pregnancy is an important life transition, but it is not always an emotionally easy one. A woman can be grateful for her pregnancy and still experience fear, sadness, anxiety, stress, or uncertainty. Recognizing this reality is an important part of providing compassionate maternal healthcare.

Depression, anxiety, excessive stress, fear of childbirth, trauma-related symptoms, obsessive-compulsive symptoms, bipolar disorder, and severe psychiatric conditions can occur during pregnancy. These problems may influence a woman's daily functioning, relationships, self-care, pregnancy experience, and, in some cases, pregnancy and birth outcomes.

The available evidence suggests that antenatal depression and anxiety are associated with important maternal and perinatal outcomes, although these relationships are influenced by many biological, psychological, social, and socioeconomic factors. In the Indian context, family relationships, social support, intimate partner violence, previous reproductive experiences, and cultural expectations may contribute to psychological distress.

Routine screening with tools such as the EPDS, PHQ-9, and GAD-7 can help identify women who may need additional support. However, screening should always be followed by appropriate clinical assessment and should not be treated as a diagnosis by itself.

Most importantly, psychological difficulties during pregnancy should not be dismissed as simply "part of being pregnant." They deserve the same seriousness and compassion as physical health problems. Early recognition, respectful communication, psychotherapy when appropriate, clinically indicated medication, family support, and multidisciplinary care can help women navigate pregnancy with greater confidence and improve outcomes for mothers, babies, and families.

REFERENCES

1. Accortt EE, Cheadle ACD, Dunkel Schetter C. Prenatal depression and adverse birth outcomes: an updated systematic review. Matern Child Health J. 2015; 19:1306-1337. doi:10.1007/s10995-014-1637-2.
2. American College of Obstetricians and Gynecologists. ACOG Committee Opinion No. 757: Screening for perinatal depression. Obstet Gynecol. 2018;132(5). doi:10.1097/AOG.0000000000002927.
3. American College of Obstetricians and Gynecologists. Screening and diagnosis of mental health conditions during pregnancy and postpartum: ACOG Clinical Practice Guideline No. 4. Obstet Gynecol. 2023;141(6):1232-1261. doi:10.1097/AOG.0000000000005200.
4. American College of Obstetricians and Gynecologists. Treatment and management of mental health conditions during pregnancy and postpartum: ACOG Clinical Practice Guideline No. 5. Obstet Gynecol. 2023.
5. Avasthi A, et al. Antenatal depression and anxiety in Indian women: a systematic review. Indian J Psychiatry. 2023.
6. Dadi AF, Miller ER, Mwanri L. Antenatal depression and its association with adverse birth outcomes in low- and middle-income countries: a systematic review and meta-analysis. PLoS One. 2020;15(1). doi: 10.1371/journal.pone.0227323.
7. Ding XX, Wu YL, Xu SJ, Zhu RP, Jia XM, Zhang SF, et al. Maternal anxiety during pregnancy and adverse birth outcomes: a systematic review and meta-analysis of prospective cohort studies. J Affect Disord. 2014; 159:103-110. doi: 10.1016/j.jad.2014.02.027.

8. Grigoriadis S, Graves L, Peer M, Mamisashvili L, Tomlinson G, Vigod SN, et al. Maternal anxiety during pregnancy and the association with adverse perinatal outcomes: systematic review and meta-analysis. J Clin Psychiatry. 2018;79(5). doi:10.4088/JCP.17r12011.
9. Lewis AJ, Austin E, Galbally M. Prenatal maternal mental health and fetal growth restriction: a systematic review. J Dev Orig Health Dis. 2016;7(2):135-147. doi:10.1017/S2040174416000076.
10. World Health Organization. WHO guide for integration of perinatal mental health in maternal and child health services. Geneva: World Health Organization; 2022.
11. World Health Organization. Mental health, brain health and substance use: perinatal mental health. Geneva: World Health Organization; 2022.

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