Anxiety in Pregnancy: A Literature Review

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Abstract

Background. Pregnant women commonly faced anxiety. Not only affect their maternal health, but also contribute significantly foetus development. Identifying the contributing factors will drive to specific interventions given to the patients.
Methods. We search from Pubmed and Google Scholar database using relevant keywords, such as "anxiety in pregnancy," "maternal anxiety," and "pregnancy stress."
Discussion. Not only psychological factor, several others contribute significantly in anxiety of pregnancy. Both mother and foetus could suffer bad outcomes. Thus, interventions should comprehensively manage both mother health and foetus development.
Conclusion. The anxiety in pregnancy had potential impact on the well-being of both the mother and the developing foetus. The critical importance of implementing comprehensiveinterventions to effectively address this significant issue.
Keywords. anxiety, pregnancy, foetus,

Introduction

Pregnancy is a significant life event that can be accompanied by a range of emotional and psychological experiences for expectant mothers. One particular challenge that many pregnant women face is anxiety, which can have far-reaching consequences for both the mother and the developing fetus.¹ This literature review aims to identify the factors that contribute to anxiety during pregnancy, explore the impact of maternal anxiety on pregnancy outcomes, and evaluate effective interventions to manage and mitigate anxiety in this population.

Methods

To conduct this comprehensive literature review, a thorough search was performed across several reputable academic databases, including PubMed and Google Scholar. The search utilized a variety of keywords relevant to the topic, such as "anxiety in pregnancy," "maternal anxiety," and "pregnancy stress."^{2,3} The review focused on studies that reported on the prevalence, predictors, or effects of anxiety experienced by women during pregnancy or the postpartum period, with a publication date within the last decade to ensure the inclusion of themost current research findings.

Discussion

Factors Contributing to Anxiety in Pregnancy

Anxiety during pregnancy can be influenced by a variety of factors, including biological, psychological, social, and environmental considerations. Biologically, the hormonal changes associated with pregnancy can contribute to heightened stress and anxiety

levels.⁴ Additionally, the physical health of the mother, such as pre-existing medical conditions or pregnancy complications, can exacerbate feelings of anxiety. From a psychological perspective, a history of anxiety disorders or the experience of significant psychological and emotional stress can increase a woman's vulnerability to pregnancy-related anxiety. Socially and economically, factors such as lack of social support, marital/family conflict, and low socioeconomic status can also contribute to elevated anxiety levels during pregnancy.³

Pregnancy can be a complex and multifaceted experience, with a variety of factors contributing to the development of anxiety in expectant mothers. From a biological standpoint, the significant hormonal changes associated with pregnancy have been found to play a key role in heightening stress and anxiety levels.⁴ Moreover, the physical health of the mother, including pre-existing medical conditions or pregnancy-related complications, can further exacerbate feelings of anxiety and unease.

On the psychological front, a history of anxiety disorders or the experience of significant emotional and psychological stress during pregnancy can increase a woman's vulnerability to pregnancy-related anxiety. Socially and economically, factors such as a lack

of social support, marital or family conflicts, and low socioeconomic status have also been identified as contributors to elevated anxiety levels in pregnant women.³ Additionally, environmental factors, such as limited access to quality healthcare services and a demanding, high-stress work environment, may compound the challenges faced by expectant mothers andfurther contribute to their anxiety.

Environmental factors, such as limited access to quality healthcare services and a demanding, high-stress work environment, may further compound the challenges faced by pregnant women. The availability and accessibility of prenatal care can significantly impact a woman's ability to manage her anxiety and receive Similarly, a work environment that places excessive demands or fails to accommodate the needs of pregnant employees can exacerbate feelings of stress and anxiety.⁵

Impact of Maternal Anxiety on Pregnancy Outcomes

Maternal anxiety during pregnancy can have significant consequences for both the mother and the developing fetus. Maternal anxiety during pregnancy can have significant consequences for the mother and the developing fetus. High levels of anxiety have been associated with an increased risk of pregnancy complications, such as preeclampsia, as well as adverse effects on the mother's mental and physical health.⁶ Furthermore, maternal anxiety has been linked to impaired fetal growth, increased risk of preterm birth, and potential long-term developmental issues for the child.⁷

Research has demonstrated that maternal anxiety can have detrimental effects on the developing fetus, including impaired fetal growth, increased risk of preterm birth, and potential long-term developmental consequences for the child.^{6,7} These adverse outcomes may be attributed to the physiological effects of maternal stress hormones on the fetus, as well as the indirect impact of maternal anxiety on factors such as health behaviors and prenatal care utilization.

For the fetus, maternal anxiety has been linked to a range of adverse outcomes. Studies have shown that elevated maternal anxiety can lead to reduced fetal growth and birth weight, potentially impacting the child's physical and cognitive development. Additionally, increased maternal anxiety has been associated with an elevated risk of preterm birth, which can have far-reaching consequences for the infant's health and longterm developmental trajectory. Furthermore, research suggests that maternal anxiety during pregnancy may also contribute to the emergence of long-term developmental issues, such as behavioral problems, cognitive impairments, and emotional dysregulation, in the child. These findings underscore the critical importance of addressing and managing maternal anxiety to promote optimal outcomes for both the mother and the developing fetus.⁷⁻⁹

Evidence suggests that anxiety, particularly in the early stages of pregnancy, can disrupt the normal functioning of the hypothalamic-pituitary-adrenal axis, leading to changes in steroidogenesis and potentially affecting the child's social behavior and fertility in adulthood.¹⁰ The effects of maternal anxiety during pregnancy can extend beyond the prenatal period, potentially influencing the child's temperament and long-term developmental outcomes, such as attention regulation, cognitive and motor development, and emotional and behavioral problems.

The adverse effects of maternal anxiety extend beyond the fetus and can also have a significant impact on the mother's own wellbeing. High levels of anxiety during pregnancy have been linked to an increased risk of mental health issues, such as depression and postpartum anxiety, as well as physical health complications.¹⁰ These findings highlight the need for comprehensive support and intervention strategies to address maternal anxiety and its multifaceted consequences.

Interventions and Management of Anxiety in Pregnant Women

Addressing anxiety in pregnant women requires a multifaceted approach, incorporating both psychological and medical interventions. Cognitive Behavioral Therapy and counseling have been shown to be effective in reducing anxiety symptoms and improving overall mental health during pregnancy.⁷

Mindfulness-based interventions have also demonstrated promising results in managing pregnancy-related anxiety. Studies have shown that regular mindfulness practice can help pregnant women cultivate a greater awareness and acceptance of their thoughts, emotions, and bodily sensations, enabling them to cope more effectively with the stress and challenges of

pregnancy. By promoting present-moment focus, mindfulness-based techniques can enhance emotional regulation, reduce worry and rumination, and foster a greater sense of inner calm and well-being during this transformative period of a woman's life.^{11,12}

In cases where the benefits outweigh the risks, the use of anti-anxiety medications may be considered, with careful monitoring and consultation with healthcare professionals. Holistic approaches, such as yoga, meditation, and relaxation techniques, can also help pregnant womenmanage their anxiety. Social support, both formal and informal, can play a crucial role in mitigating pregnancy-related anxiety. Participation in support groups, where expectant mothers can share their experiences and receive peer-to-peer guidance, has been shown to be an effective way to alleviate anxiety. Additionally, engaging in prenatal education programs that provide information and strategies for coping with the emotional and psychological challenges of pregnancy can empower women and help them better manage their anxiety.¹³

Conclusion

This literature review has thoroughly explored the multifaceted nature of anxiety in pregnancy, highlighting its potential impact on the well-being of both the mother and the developing fetus. It has underscored the critical importance of implementing comprehensive interventions to effectively address this significant issue. While substantial progress has been made in understanding the various factors that contribute to anxiety during pregnancy, the review indicates that further research is still needed to develop even more effective and tailored strategies to better support the mental health and overall well-being of expectant mothers.

References

- 1. Field T. Prenatal anxiety effects: A review. Infant Behav Dev. 2017 Nov;49:120-128.
- Dennis CL, Falah-Hassani K, Shiri R. Prevalence of antenatal and postnatal anxiety: systematic review and meta-analysis. Br J Psychiatry. 2017 May;210(5):315-323.
- Field T. Postnatal anxiety prevalence, predictors and effects on development: A narrative review. Infant Behav Dev. 2018 May;51:24-32.
- Blackmore ER, Gustafsson H, Gilchrist M, Wyman C, G O'Connor T. Pregnancyrelated anxiety: Evidence of distinct clinical significance from a prospective longitudinal study. J Affect Disord. 2016 Jun;197:251-8.
- 5. Guardino CM, Schetter CD. Coping during pregnancy: a systematic review and recommendations. Health Psychol Rev. 2014;8(1):70-94.
- Shahhosseini Z, Pourasghar M, Khalilian A, Salehi F. A Review of the effects of anxiety during pregnancy on children's health. Mater Sociomed. 2015 Jun;27(3):200-2
- 7. Dunkel Schetter C, Tanner L. Anxiety, depression and stress in pregnancy:

implications for mothers, children, research, and practice. Curr Opin Psychiatry. 2012 Mar;25(2):141-8

- Rees S, Channon S, Waters CS. The impact of maternal prenatal and postnatal anxiety on children's emotional problems: a systematic review. Eur Child Adolesc Psychiatry. 2019 Feb;28(2):257-280.
- Schofield CA, Battle CL, Howard M, Ortiz-Hernandez S. Symptoms of the anxiety disorders in a perinatal psychiatric sample: a chart review. J Nerv Ment Dis. 2014 Feb;202(2):154-60.
- Breitkopf CR, Primeau LA, Levine RE, Olson GL, Wu ZH, Berenson AB. Anxiety symptoms during pregnancy and postpartum. J Psychosom Obstet Gynaecol. 2006 Sep;27(3):157-62
- 11. Goodman JH, Guarino A, Chenausky K, Klein L, Prager J, Petersen R, Forget A, Freeman M. CALM Pregnancy: results of a pilot study of mindfulness-based cognitive therapy for perinatal anxiety. Arch Womens Ment Health. 2014 Oct;17(5):373-87.
- Dhillon A, Sparkes E, Duarte RV. Mindfulness-Based Interventions During Pregnancy: a Systematic Review and Meta-analysis. Mindfulness (N Y). 2017;8(6):1421-1437.
- Levine RE, Oandasan AP, Primeau LA, Berenson AB. Anxiety disorders during pregnancy and postpartum. Am J Perinatol. 2003 Jul;20(5):239-48.