



PREVALENCE AND RISK FACTORS OF DEPRESSION DURING THE THIRD TRIMESTER OF PREGNANCY: A CROSS-SECTIONAL OBSERVATIONAL STUDY

Psychiatry

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ABSTRACT

Background: Depression during pregnancy is a significant public health concern due to its prevalence and impact on maternal and fetal outcomes. This study aimed to assess the prevalence of depressive symptoms during the third trimester of pregnancy and explore the relationship between demographic features, psychosocial factors, and depression in routine antenatal check-ups. **Methods:** An open-label, cross-sectional, observational study was conducted involving 153 pregnant women attending routine antenatal check-ups at a tertiary care hospital in Nashik. The Beck Depression Inventory (BDI) was administered to assess symptoms of depression, and socio-demographic data and obstetric history were recorded. Data analysis was performed using SPSS version 20, employing Pearson's Chi-Square and Fisher's exact tests for categorical data. Results were reported as means and percentages. **Results:** The prevalence of depressive symptoms during pregnancy was found to be 8%. However, no significant associations were observed between depression and variables such as age, type of family, occupation, parity, and past obstetric history. **Conclusion:** This study highlights an 8% prevalence of depression during pregnancy but did not identify significant associations with demographic features and obstetric factors. The complexity and variability of factors contributing to depression during pregnancy necessitate further research to better understand and address this important issue. The findings emphasize the need for supportive networks and comprehensive approaches to mental health care during pregnancy.

KEYWORDS

depression, pregnancy, antenatal care, Beck Depression Inventory, prevalence, risk factors, psychosocial factors.

INTRODUCTION

The World Health Organization (WHO) defines maternal mental health as "a state of well-being in which a mother realizes her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her community"^[1] The Perinatal period is recognized as a time of major transition that can be extremely emotional and associated with significant distress.^[2] Pregnancy and delivery bring many physiological and psychosocial changes, consequently, also increased vulnerability for the onset or relapse of a mental illness. Depression and anxiety are the most common psychiatric disorders and the symptoms can range from mild to severe.^[3] These disorders are persistently underdiagnosed and undertreated during antenatal care and are largely ignored.

Depression affects about 20% of women during their lifetime, with pregnancy being a period of high vulnerability. Depression is also the most prevalent psychiatric disorder during pregnancy, and several studies have documented prevalence range from 4% to 25%^[4] with point prevalence of 15.5% in early and mid pregnancy, 11.1% in 3 trimester, and 8.7% in post-partum period.

Depression during pregnancy is a matter of public health importance due to 3 prime reasons: Firstly, rate of depression during pregnancy is high during antenatal period.^[5] Secondly, it is the strongest risk factor for post-natal depression.^[6] Thirdly, it leads to adverse maternal and fetal outcomes.^[7]

Several risk factors predispose to depression during pregnancy. Some of them are poor antenatal care, poor nutrition, stressful life events like economic deprivation, gender-based violence and polygamy, previous history of psychiatric disorders, previous puerperal complications, events during pregnancy like previous abortions, and modes of previous delivery like past instrumental or operative delivery. Other factors include age, marital status, gravidity, whether pregnancy was planned or not, previous history of stillbirth, previous history of prolonged labor, and level of social support.^[8]

AIM & OBJECTIVES:

This study aimed to assess the prevalence of depressive symptoms during the third trimester of pregnancy and explore the relationship between demographic features, psychosocial factors, and depression in routine antenatal check-ups.

MATERIAL AND METHODS:

This study was conducted at a tertiary care hospital in Nashik,

involving 153 pregnant women attending routine antenatal check-ups. The study was a cross-sectional, observational design and obtained permission from the ethics committee. Women in labor or the postnatal period, those on psychotropic medications, and repeat attendees were excluded from the study. The Beck Depression Inventory (BDI) was administered to assess symptoms of depression, and socio-demographic data and obstetric history were recorded. Data analysis was performed using SPSS version 20, with a significance level set at $p < 0.05$. The study employed Pearson's Chi-Square and Fisher's exact tests for categorical data, and results were reported as means and percentages.

The BDI scale, consisting of 21 items, was used to measure the severity of depressive symptoms experienced in the previous week. Overall, the study aimed to investigate the prevalence and associations of depression during pregnancy in the selected population.

RESULTS

The study included 153 pregnant women in their third trimester. The mean age of the participants was 25.46 ± 3.75 years. Table 1 shows the comparisons and analysis of depressed and non-depressed pregnant women in our sample and their correlations with various risk factors. There was no significant association of Depression during pregnancy with age, type of family, occupation, parity and past obstetric history.

Table 1: Analysis and comparison of various factors

Parameters		Frequency	P value
PAST OBSTETRIC HISTORY	No	90	
	Yes	63	
BDI SCORE	1-10	134	
	11-16	5	
	17-20	12	
	21-30	2	
	31-40	0	
	>40	0	
AGE GROUP	<30	141	0.802
	>30	12	
OCCUPATION	Employed	65	0.915
	Housewife's	88	
TYPE OF FAMILY:	Joint	43	0.785
	Nuclear	110	
PARITY	Primigravida	90	0.475
	Multigravida	63	

DISCUSSION

The present study assessed the prevalence of depression during pregnancy using Beck's Depression Inventory, a 21-item measure designed to capture various depressive symptoms. The findings revealed that 8% of the participants in the study exhibited signs of depression. However, no significant associations were found between depression during pregnancy and variables such as age, type of family, occupation, parity, and past obstetric history.

It is worth noting that previous research conducted by Biaggi et al., Fellenzer, and Cibula has reported an association between younger age and depressive features during pregnancy, suggesting that younger women may be at a higher risk of experiencing prenatal depressive symptoms^[3,9]. However, in our study, no significant association between age group and depressive symptoms was found.

Regarding past obstetric history, 58.8% of the participants reported no previous obstetric history, which aligns with the percentage of primigravida participants in the study. This finding is consistent with studies conducted by Ajinkya et al., Sheeba et al., Tuksanawes et al., and Pereira et al., which identified the absence of obstetric history as a protective factor against depression during pregnancy^[10,11,12,13].

Contrary to our initial expectations, no significant association was found between the participants' occupation and depression, despite the majority of the study population being housewives. However, studies conducted by Sheeba et al., Andajani-Sutjahjo et al., Rubertsson et al., and Rich-Edwards et al. have suggested a higher risk of postnatal depressive symptoms among unemployed or non-working mothers, as well as those on maternity leave^[11,14,15,16].

In terms of the type of family, a study conducted by Tuksanawes et al. indicated a higher risk of antenatal depression among women belonging to joint families. However, other studies by Senturk et al., Yanikkerem et al., and Cankorur et al. did not find a significant difference in antenatal depression between extended and nuclear family settings^[17,18,19,20].

It is important to note that our study's low prevalence of depression during pregnancy may be attributed to the presence of a supportive network, including family and friends, for the women in our sample population. This support system may have contributed to their ability to cope with the stress associated with pregnancy.

In conclusion, while our study identified an 8% prevalence of depression during pregnancy, no significant associations were observed between depression and variables such as age, type of family, occupation, parity, and past obstetric history. These findings contrast with previous research, highlighting the complexity and variability of factors contributing to depression during pregnancy. Further exploration and larger-scale studies are necessary to gain a more comprehensive understanding of the risk factors and protective factors associated with depression in pregnant women.

CONCLUSION

In conclusion, this study found an 8% prevalence of depression during pregnancy using Beck's Depression Inventory. However, no significant associations were found between depression and age, type of family, occupation, parity, and past obstetric history. The absence of a significant association challenges previous research, highlighting the complex nature of factors influencing depression during pregnancy. The study emphasizes the importance of supportive networks and highlights the need for increased awareness, individualized care, social support, and further research in the field of maternal mental health. By addressing these implications, healthcare systems can better identify and support pregnant individuals experiencing depression, ultimately improving the overall well-being of both the mother and the child.

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