



ANTEPARTUM DEPRESSIVE SYMPTOMS AND ASSOCIATED RISK FACTORS AMONG ANTENATAL WOMEN IN NORTHERN KERALA- A HOSPITAL BASED STUDY

Nursing

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ABSTRACT

Depression is the most frequent psychiatric disorder that women face throughout their perinatal period. As the pregnancy proceeds, the risk of antenatal depression rises, and clinically severe depressive symptoms are quite common in last trimesters. The present study aimed to identify the prevalence of antenatal depressive symptoms (APDS) and its associated risk factors among pregnant women attending Antenatal outpatient department (OPD) at Institute of Maternal and child health (IMCH), Kozhikode. Two hundred antenatal women were screened for APDS using Edinburgh Postnatal Depression Screening Scale (EPDS). The prevalence of APDS among antenatal women was 40.5%. History of illness in present pregnancy, previous pregnancy, fetal well-being, history of mental illness, fear of birth and social support were significantly associated with APDS. Pregnancy has a high prevalence of depressive symptoms, necessitating frequent screening during antenatal checkup to detect APDS and integrating mental health service with perinatal care.

KEYWORDS

Antepartum depressive symptoms, fear of birth, social support, risk factors of antepartum depression

INTRODUCTION

Women's mental health is a crucial, but frequently overlooked part of reproductive health. During pregnancy much attention was paid on physical health. Psychological aspects of pregnancy were least bothered area in prenatal care. Pregnancy causes physiological, hormonal, and psychological changes in the expectant mother, which may raise the risk of mental and emotional alterations leading to sadness, anxiety, or psychological distress (Dipietro, 2010).

Depression is the commonest mental illness in perinatal period (Mayoclinic.org, 2019). About 13 percent of pregnant women experience depression (Beaumont.Org, 2021). A systematic review on prevalence of depression during pregnancy conducted by Bennett et al. (2004) shows that prevalence of prenatal depression was 12% during third trimester of pregnancy. There is no single cause for depression during pregnancy and the factors are multiple (Marchofdimis.Org., 2021).

Prenatal depression should be identified at the earliest, if not recognized and treated, can lead to postnatal depression (Verreault et al., 2014). As per the report of Rahman, et al. (2008) poor physical and mental health in mothers have adverse consequences on children's health, their nutrition and psychological well-being. Psychological disturbances during pregnancy are associated with inadequate antenatal care, low-birth weight and preterm delivery (Satyanarayana., 2011).

The present study was aimed to determine the prevalence of APDS and its associated risk factors among antenatal women.

Hypotheses

- H₁: There is significant association between APDS and socio personal variable
H₂: There is significant association between APDS and selected risk factors

MATERIALS AND METHODS:

This study is a descriptive survey conducted at Antenatal OPD of IMCH, Kozhikode. It is Kerala's largest referral and teaching hospital, serving the health needs of women and children from five northern districts of Kerala. Population of the study was antenatal women of 28-34 weeks of gestation and sample of the study was antenatal women of 28 to 34 weeks of gestation attending antenatal OPD, IMCH, Kozhikode. The sample size of the study was calculated using the formula $n = 4pq / d^2$ based on the literature reviewed (Sheeba et al., 2019). Two hundred women attending antenatal OPD for check-up in third trimester from 6/4/2020 to 28/4/2020 were recruited consecutively based on inclusion and exclusion criteria

INCLUSION CRITERIA:

- Antenatal women of 28-34 weeks of gestation
- Willing to participate and give consent for the study
- Able to read and write English or Malayalam

EXCLUSION CRITERIA –

- Antenatal women with mental illness on treatment
- Tools used in the study were

Semi structured interview schedule to identify risk factors of APDS. It has 2 sections, socio personal data, consists of seven items and risk factors of APDS, consists of ten items.

Social support measurement scale - Self-reported 4-point rating scale consists of 26 items refers to help and support which a woman gets during pregnancy. Maximum score –78, score range 0-78, graded as good >68, moderate 45-68 and poor <45

EPDS -standardized 10 item self-reporting screening tool (Cox et al., 1987). APDS was evaluated by Malayalam version of EPDS. It is a 4-point Likert scale ranging from 0 to 3, and the score ranges from 0-30, score of more than ≥9 would be categorized as presence of APDS.

W-DEQ (Wijma Delivery Expectancy Questionnaire) standardized tool to assess fear of childbirth (FOB) before delivery. The 33-item self-reported questionnaire measures FOB on a six-point Likert scale that ranges 0 -5, with a total score of 0 -165 (Wijma et al., 1998).

The tools were validated by the experts and reliability of the tools were tested using Cronbach's alpha and was found to be 0.89 for social support measurement scale and 0.85 for EPDS and 0.84 for W-DEQ.

STATISTICAL ANALYSIS

Data were analyzed using 18th version of SPSS, appropriate descriptive statistics and Chi-square test were used in the study.

RESULTS:

The mean age of the women was 26.8 years with a range of 19–40 years. Majority (87%) of them were in the age group of 20–35 years. 53.8% belongs to Hindu religion, 35.7% have secondary education, 69% were home makers, 51.4% belongs to BPL category, 81.4% had arranged marriage and 78.1% belongs to three generation family.

Figure 1 shows that 40.5% of participants have APDS, who scored ≥9 on EPDS. The mean APDS score was 8.5 with a SD of 5.21.

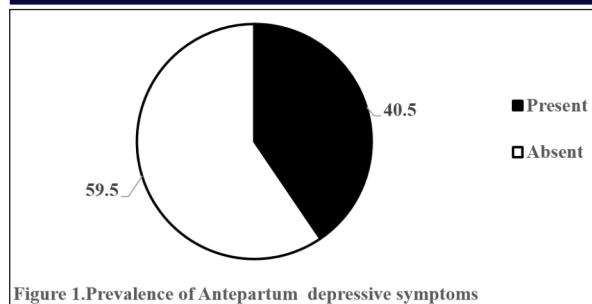


Figure 1. Prevalence of Antepartum depressive symptoms

Table 1. Association between APDS and socio personal variable (n=200)

Socio-personal variable	Categories	Total f	APDS		Chi-square	df	p value
			Present (n=85) f (%)	Absent (n=115) f (%)			
Age in years	<20	8	5(5.9)	3(2.6)	2.109	2	0.348
	20-35	183	75(88.2)	108(93.9)			
	>35	9	5(5.9)	4(3.5)			
Religion	Hindu	113	43(50.6)	70(60.9)	2.532	2	0.282
	Christian	3	2(2.4)	1(0.9)			
	Muslim	84	40(47.0)	44(38.2)			
Education	Primary	4	4(4.7)	0(0.0)	4.180	3	0.243
	Secondary	75	29(34.1)	46(40.0)			
	Higher secondary	60	24(28.2)	36(31.3)			
	College	33	16(18.9)	17(14.8)			
	Professional	28	12(14.1)	16(13.9)			
	Occupation	Homemaker	145	65(76.5)	80(69.6)	4.362	3
	Private sector	39	17(20.0)	22(19.1)			
	Public sector	14	3(3.5)	11(9.6)			
	Self employed	2	0(0.0)	2(1.7)			
Economic status	APL	92	35(41.2)	57(49.6)	1.385	1	0.239
	BPL	108	50(58.8)	58(50.4)			
Type of marriage	Love marriage	29	12(14.1)	17(14.8)	0.017	1	0.895
	Arranged marriage	171	73(85.9)	98(85.2)			
Type of family	Nuclear	36	17(20.0)	19(16.5)	0.401	1	0.527
	Three generation family	164	68(80.0)	96(83.5)			

Table 1 shows that there is no significant association between APDS and socio-personal variables

Table 2. Association between APDS and selected risk factors (n=200)

Risk factors	Categories	Total f	APDS		Chi-square	df	p value
			Present (n=85) f (%)	Absent (n=115) f (%)			
Gravida	Primi	67	24(28.2)	43(37.4)	1.839	1	0.175
	Multi	133	61(71.8)	72(62.6)			
Present pregnancy	Wanted	143	56(65.9)	87(75.7)	2.289	1	0.130
	Un wanted	57	29(34.1)	28(24.3)			
Illness in present pregnancy	Yes	146	71(83.5)	75(65.2)	8.315	1	0.004
	No	54	14(16.5)	40(34.8)			
Previous pregnancy	Normal	89	34(40.0)	55(47.8)	8.303	2	0.016
	Complicated	44	27(31.8)	17(14.8)			
	Not applicable	67	24(28.2)	43(37.4)			
Fetal well being	Normal	159	48(56.5)	111(96.5)	48.232	2	0.000

	IUGR	38	34(40.0)	4(3.5)			
	Congenital anomaly	3	3(3.5)	0(0.0)			
Fear of birth	Present	33	25(29.4)	8(7.0)	17.888	1	0.000
	Absent	167	60(70.6)	107(93.0)			
Social support	Good	73	11(12.9)	62(53.9)	40.478	2	0.000
	Moderate	50	23(27.1)	27(23.5)			
	Poor	77	51(60.0)	26(22.6)			
Staying with husband	Yes	160	65(76.5)	95(82.6)	1.151	1	0.283
	No	40	20(23.5)	20(17.4)			
History of mental illness	Yes	20	14(16.5)	6(5.2)	6.877	1	0.009
	No	180	71(83.5)	109(94.8)			
Family history of mental illness	Yes	33	13(15.3)	20(17.4)	0.156	1	0.693
	No	167	72(84.7)	95(82.6)			

Table 2 shows that Majority (66.5%) of the participants were multigravida and for 28.5% present pregnancy was unwanted pregnancy. APDS was significantly associated with history of illness in present pregnancy, previous pregnancy, fetal well-being, fear of birth and social support and history of mental illness. Prevalence of APDS was 48.6% among participants with history of illness in present pregnancy as compared to women without history of illness (26%). Among 133 mothers with previous pregnancy, prevalence of APDS was 61.3% among participants with complicated pregnancy, when compared to participants with normal previous pregnancy (38.2%). Prevalence of APDS was high (90%) among participants who have IUGR and congenital anomaly to fetus as compared to participants with healthy fetus (32.2%). Prevalence of APDS was 76% among women with FOB as compared to women without FOB (36%). Prevalence of APDS was more in participants with poor social support (66%) as compared to participants with good social support (8%). Ten percentage of participants have history of mental illness and the prevalence of APDS was high (70%) among them as compared to participants without history of mental illness (14%). Table also depicts that there is no significant association of APDS with gravida, unwanted pregnancy, staying with husband, and family history of mental illness.

DISCUSSION

The present study shows that prevalence of APDS among antenatal women in third trimester is 40.5%. The findings of study conducted in Pakistan and in Bangalore (Humayun et al., 2013; Sheeba et al., 2019) have reported high prevalence of APDS. In the present study 20% of the participants have severe depressive symptoms, scored ≥ 13 on EPDS which is consistent with the findings of the study by Pearson et al. (2018) where 17 % of the participants have severe depressive symptoms. All participants in the present study were in third trimester, and as per the report of Zhang et al. (2020) APDS would be more as women were closer to delivery, and were more concerned about the impending delivery and health of their fetus.

Findings of present study shows that the history of illness in present pregnancy have significant association with APDS ($p < 0.05$). This finding was supported by the findings of Bitew et al. (2017). Previous pregnancy complication was found to be associated with APDS in the present study and that was matching the findings of Dadi et al. (2020).

Fetal wellbeing was found to be associated with APDS and prevalence of APDS is higher among mothers, their fetus has IUGR and congenital anomaly. This result was matching with the findings of Rondo et al. (2003), where maternal distress was found to be associated with both birthweight and gestational age. In the present study it was found that APDS is significantly associated with fear of birth ($p < 0.05$) and it is in accordance with the findings of Humayun et al. (2013).

The present study showed that social support is a significant factor for APDS and women with poor social support are more likely to experience symptoms of APDS, study findings of Friedman et al. (2020) and Fisher et al. (2012) support the same.

There is significant association between APDS and history of mental illness in the current study and prevalence of APDS was high among women with history of mental illness. This was in agreement with the findings of study conducted by Biaggi, et al. (2016). Previous mental illness and psychiatric treatment at any time during life was found to be a risk factor for developing antenatal anxiety and depression.

It was identified that there is no significant association between APDS and socio personal variables. This was not consistent with the findings of Joshi et al. (2019) and Babu et al. (2018) they found age at first pregnancy, occupation, education, total family income were associated with APDS.

Limitations : EPDS was used to screen for APDS, it is self-reporting scale widely used for screening the women at risk for depression. While EPDS is a simple and easy to administer instrument, it is important to ensure the depression by clinical method.

CONCLUSION:

The study found a significant prevalence of APDS implying that it is important for public health and integrating mental health services into maternal health programs is highly recommended for maternal and fetal well-being. History of illness in pregnancy, previous pregnancy, fetal well-being, fear of birth, social support and history of mental illness were found to be associated with APDS. As a result, these issues should be taken into account while rendering perinatal care for expectant mothers.

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