

# **Original Research Paper**

Gynaecology

# PREVALENCE OF ANTENATAL ANXIETY AND **DEPRESSION**

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**Aims:** The aim of present study was to investigate the prevalence of antenatal anxiety and depression.

Materials and Methods: This cross sectional, observational study consisted of consenting subjects attending antenatal Out Patients department for routine checkup. Data was collected with all subjects in respect to socio demographic informations and Hospital Anxiety and Depression Scale (HADS) was applied.

Results: Among the 169 subjects there was a prevalence of 28.4% antenatal anxiety and 21.9 % antenatal depression. Conclusions: This study finds a prevalence of 28.4% antenatal anxiety and 21.9% antenatal depression.

## **KEYWORDS**

### INTRODUCTION

Prevalence of anxiety disorders during pregnancy ranges from 12.2% to 39% and different types of anxiety disorders are two to three times more common among pregnant women in compared to general population [1,2]. Similarly antenatal depression is found to be approaximately 18.4% [3]

Estimates of the prevalence of anxiety and depression during pregnancy can vary depending on the criteria used, but past studies suggest that many women experience prenatal general anxiety as well as pregnancy specific anxiety [4-6]. Depressive symptoms were associated with more sick leave, frequent visits to doctor, obstetric complications and admission to hospital [7]

Impact of maternal stress, depression and anxiety in pregnancy adversely affects birth outcomes [8], neurodevelopment [9], longterm learning, motor development, and behavior in offspring [10,11]. Hence we plan this study to explore the prevalence of antenatal anxiety and depression in ours population.

### MATERIALS AND METHOD

The aim of the present study was to assess the prevalence of antenatal anxiety and depression. This study was conducted at Ante natal out patients department at Hi-Tech Medical College and Hospital, Bhubaneshwar, which is a tertiary care medical college hospital of Orissa, India. The study protocol was approved by the institutional review board of Hi-Tech Medical College and Hospital, Bhubaneshwar. It was a cross-sectional study carried out over a three month period (November 2016- January 2017). All adult elective ANC patients who satisfied the inclusion criteria for the study and consented were recruited. All recruited patients were requested to complete a questionnaire about their sociodemographic data sheet and thereafter Hospital Anxiety and Depression Scale (HADS) was applied.

### Subjects

All consenting pregnant women visiting for Ante Natal Checkups at Obstetrics and Gynecology out patients department (OPD) were included for the study. Presence of any major co morbid medical or other illness was kept as exclusion criteria. Included patients were examined clinically after taking detailed history and their socio demographic variables.

Socio-demographic Data Sheet: The socio demographic data sheet included age, religion, occupation, education and clinical information like duration of pregnancy and other obstetric history.

Hospital Anxiety and Depression Scale (HADS) [12]: this is very well validated scale to assess anxiety and depression among hospital based patients. It consists 14 questions, 7 scoring anxiety and 7 scoring depression. Patients were asked to read each question and place a tick against the reply that came closest to how they had been feeling that day. Each answer was scored 0, 1, 2 or 3. The possible range of scores was therefore 0 to 21, with higher scores indicating greater levels of anxiety. Score of 0-7 is considered normal, scores of 8-10 is borderline abnormal and scores of 11-21 is abnormal case.

Procedure: It was a cross sectional observational study. All subjects were assessed for inclusion – exclusion criteria, and on qualification they were requested to fill up Socio-demographic data sheet or asked verbally and filled up by investigators. The HADS was applied on all subjects and recorded.

**Statistical Analysis**: The collected data of all subjects was statistically analyzed, using Statistical Package for Social Sciences (SPSS, Inc., Chicago, Illinois) version 10.0.

Data analysis included means and standard deviations for complete sample. frequency analysis was used to determine the prevalence of anxiety and depression separately.

### RESULTS

A total of 169 subjects were included for the study, Table 1 summarizes the sample characteristics. The mean age of the sample was 25.48 years (±.4.64 years) with minimum age of 18 years to a maximum age of 32 years in ours sample. the mean education years for the sample was found to be  $10.37 \pm 2.61$ .

Most of the sample was during second trimester 40.8%, followed by 3<sup>rd</sup> trimester 30.8% and 1<sup>st</sup> trimester was 27.8 %. however the mean duration of pregnancy for the sample was found to be 17.42 ± 6.80 weeks. (Table -1)The mean anxiety scores of the total sample was found to be  $9.28 \pm 3.51$ , this suggests Borderline high anxiety of the whole sample, similarly mean score for depression was  $8.84 \pm 3.29$ , finds slightly lower then anxiety. On HADS a total

of 48 subjects scored cut off can be classified as Abnormal (case) of anxiety, which constituted 28.4 %. Similarly for depression it was 37 subjects showing 21.9% prevalence of antenatal depression (table-1).

### DISCUSSION

we found a very high prevalence of anxiety 28.4% and depression 21.9% among ours sample, this finding is in collaboration with many other studies reporting antenatal anxiety ranges between 12.2% to 39% [1-2]. However usual variation in prevalence may be attributable to sample selection and different tools used. We used Hospital Anxiety and Depression Scale which is well established assessment scale in hospital population with very high sensitivity and specificity for both HADS-A and HADS-D of approximately 0.80 [13]

Antenatal anxiety is a complex subjective response influenced by many factors that may include perceived risk for self and baby, social and family expectations, financial burden, gender of baby in womb, education and available psychosocial support available to pregnant females. Female gender is itself known to suffer from higher stress, anxiety and depression, in comparison to males. [14] the sociocultural gender role to hormonal or neurobiological underpinnings may be responsible for it. Although all steroids including progesterone metabolites, act as gamma aminobutyric acid A (GABA-A)/benzodiazepine receptor agonists, which are considered as anxiolytics [15],

Anticipatory labour pain or possible operative delivery (caessarian section) may play a role for anxiety. Fear of harmful mistakes being made during the surgical procedure and possibility of having the surgical operation postponed [16] or fear of death or disability during operations [17]. In a systemic review factors like lack of partner or of social support; history of abuse or of domestic violence; personal history of mental illness; unplanned or unwanted pregnancy; adverse events in life and high perceived stress; present/past pregnancy complications; and pregnancy loss were found to be associated with antenatal anxiety and depression [18]

In future we need larger samples size, along with a matched control group, simultaneous assessment of quality of life, disability and burden of various other psychological problems, and follow $up \, studies \, to \, know \, the \, longitudinal \, course \, of \, these \, problems.$ 

## CONCLUSION

This study finds a prevalence of 28.4% antenatal anxiety and 21.9 % antenatal depression.

Table 1. Sample Characteristics and findings:

Total n = 169	Min	Mav	Mean ± SD
Age	18	32	25.48 ± 4.64
years of education	5	15	10.37 ± 2.61
duration of pregnancy (weeks)	8	36	17.42 ± 6.80
		n	%
Religion	Hindu	128	75.7
	Others	41	24.3
occupation	House wives	113	66.9
	working	56	33.1
gravida	Primi gravida	60	35.5
	poly gravida	109	64.5
history of abortion	present	137	81.1
	Absent	32	18.9
ANXIETY	Below cut off	121	71.6%
	Above cut off	48	28.4%
DEPRESSION	Below cut off	132	78.1 %
	Above cut off	37	21.9%

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