International Journal of Advance Research in Nursing

Anxiety and depression among antepartum and immediate postpartum women admitted in OBG wards of selected hospitals of Gangtok, Sikkim

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Abstract

Introduction: Antepartum and immediate postpartum anxiety and depression is a major public health problem. The aim of the study was to assess the anxiety and depression among antepartum and immediate postpartum women.

Material and Methods: A descriptive comparative study was conducted among 80 women who were admitted in the selected hospitals of Gangtok, Sikkim undergone normal vaginal delivery. The samples were assessed during the last phase of antepartum period and same women were assessed during the immediate postpartum period (1-4 days) after normal vaginal delivery. The women were selected through purposive sampling technique and the tools used were demographic proforma, personal profile and standardized tool HAM-A and HAM-D. The collected data were analysed using descriptive and inferential statistical methods.

Result: The study found that level of anxiety during antepartum period, among the 25(31.2%) women were normal, 18(22.5%) women had mild anxiety, 27(33.8%) women had moderate anxiety and 10(12.5%) women had severe anxiety whereas in immediate postpartum period, 77(96.2%) women were normal, 1(1.3%) had mild anxiety and 2(2.5%) had moderate anxiety and none had severe anxiety. With regard to level of depression during antepartum period, 38(47.5%) were normal, 35(43.8%) had mild depression, 6(7.5%) had moderate depression and 1(1.2%) had severe depression whereas in immediate postpartum period 67(83.8%) were normal, 9(11.2%) had mild depression and 4(5%) had moderate depression and none had severe depression. The study reveals that there was a significant difference between level of anxiety and depression during antepartum and immediate postpartum period amongst the sample. The study also revealed that there was an association between urban residence with level of anxiety in antepartum women.

Conclusion: The present study concluded that out of 80 women 68.8% women had anxiety and 52.5% women had depression during their antepartum period whereas among the same 80 women only 3.8% of women had anxiety and 16.2% women had depression during their immediate postpartum period. Therefore, the level of anxiety needs to be identified early and more concern and proper counselling by the health care personnel should be provided during routine antenatal care to prevent any untoward pregnancy outcome.

Keywords: Anxiety, depression, antepartum, immediate postpartum women

Introduction

Pregnancy has been defined as a period of well-being that has allowed women to feel biologically complete supported their emotional well-being, caused enjoyment and fulfilment, and at the same time led to a moment to stress and related changes [1].

Globally, around 10% of women during pregnancy and 13% of women after a child birth experience mental disorders, particularly depression. The prevalence rates for mental disorders in developing countries are even higher with 15.6% during pregnancy and 19.8% during the postpartum period (WHO 2016) [2].

According to the National Mental Health Survey-2016, one in every ten persons in India suffers from depression and anxiety, and 20% of these depressed Indians are pregnant women and new mothers. (Indian Journal of Medical Specialities. 2019)

Anxiety and depression during pregnancy are the major health problem among reproductive aged women. Findings suggest the need for assessment of the risk for prenatal anxiety and symptoms of depression during each antenatal visit and take measures immediately to prevent and manage them [3].

The world Health Organization (WHO) estimates that the depressive disorders will be the second leading cause of global disease burden by 2020 (WHO 2002) [4].

Findings of different studies suggest the need for assessment of the risk for prenatal anxiety and symptoms of depression during each antenatal visit and take measures immediately to prevent and manage them.

Material and Methods
Research approach
A quantitative approach was adopted for this study.

Research design
A descriptive comparative research design was adopted with the intension of assessing the anxiety and depression during ante partum and their immediate postpartum period of women admitted in OBG wards of selected hospitals of Gangtok, Sikkim.

Research Setting
The study was conducted in selected hospitals of Gangtok, Sikkim.

Result

Population
The population in the present study consists of women during antepartum and their immediate postpartum (1-4 days) period, admitted in OBG wards of selected Hospitals of Gangtok, Sikkim.

Sample, Sample size and Sampling technique
The sample for the study consisted of 80 women during antepartum period and their immediate postpartum period that were selected by using non-probability purposive sampling technique.

Data collection tools and techniques
Questionnaire on demographic proforma (11 items on demographic information), personal profile (10 items on personal information) and standardized tool HAM-A and HAM-D to assess anxiety and depression had been administered among women during antepartum and their immediate postpartum period.

Table 1: Frequency and percentage distribution of demographic proforma of women N=80

Sl. No	Demographic Variable	Frequency (f)	Percentage (%)
1.	Age in years		
	a. 19-27 years	45	56.2
	b. 28-36 years	34	42.5
	c. 37-45 years	1	1.3
2	Age at marriage (in years)		
	a. 19-27 years	65	81.2
	b. 28-36 years	15	18.8
	c. 37-45 years	0	0
3	Religion		
	a. Hindu	60	75
	b. Muslim	0	0
	c. Buddhist	10	12.5
	d. Christian	10	12.5
	e. Any other	0	0
4	Place of residence		
	a. Rural	43	53.8
	b. Urban	37	46.2
5	Marital status		
	a. Married	80	100
	b. Unmarried	0	0
6	Educational qualification		
	a. Below secondary	52	65
	b. Above secondary	28	35
	c. No formal education	0	0
7	Occupation		
	a. House maker	61	76.2
	b. Government employee	16	20
	c. Private employee	3	3.8
	d. Any other	0	0
8	Income per month (in Rs)		
	a. ≤10,000	64	80
	b. 10,000-20,000	6	7.5
	c. 20,000-35,000	10	12.5
	d. 35,001 and above	0	0
9	Type of family		
	a. Joint	45	56.2
	b. Nuclear	35	43.8
	c. Extended	0	0
10	Family support system		
	a. Supportive	66	82.5

	b. Satisfactory	13	16.2
	c. Not supportive	1	1.3
11	Spouse support system		
	d. Supportive	71	88.8
	e. Satisfactory	8	10
	a. Not supportive	1	1.2

Table 2: Frequency and percentage distribution of personal profile of women N=80

Sl. No	Personal profile	Frequency (f)	Percentage (%)
1.	Pregnancy status		
	a. Planned	71	88.8
	b. Unplanned	9	11.2
2	Number of living children		
	a. Yes	25	31.2
	b. No	55	68.8
3	Current week of pregnancy		
	a. 27-33 weeks	0	0
	b. 34-40 weeks	80	100
4	Any history of miscarriage		
	a. Yes	0	0
	b. No	80	100
5	History of depression		
	a. Yes	0	0
	b. No	80	100
6	History of anxiety		
	a. Yes	0	0
	b. No	80	100
7	Any history of anxiety in family		
	a. Yes	0	0
	b. No	80	100
8	Any history of depression in family		
	a. Yes	0	0
	b. No	80	100
9	History of alcohol consumption		
	a. Yes	0	0
	b. No	80	100
10	History of substance abuse		
	a. Yes	0	0
	b. No	80	100
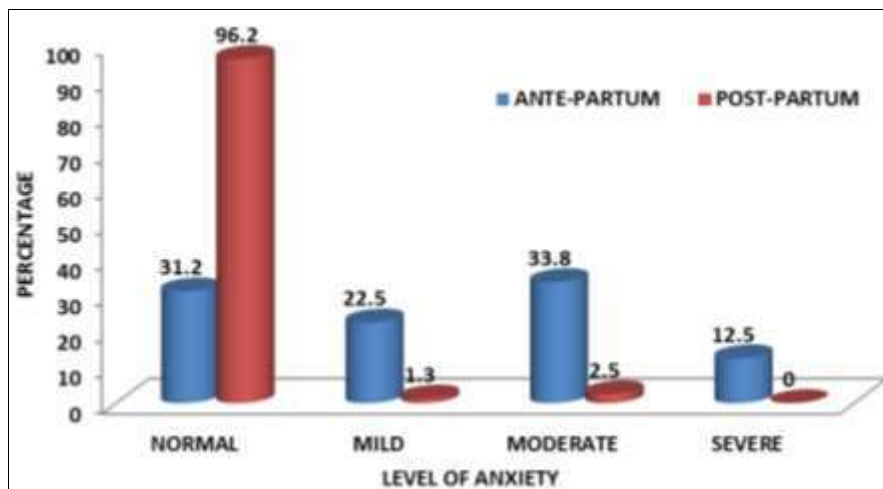
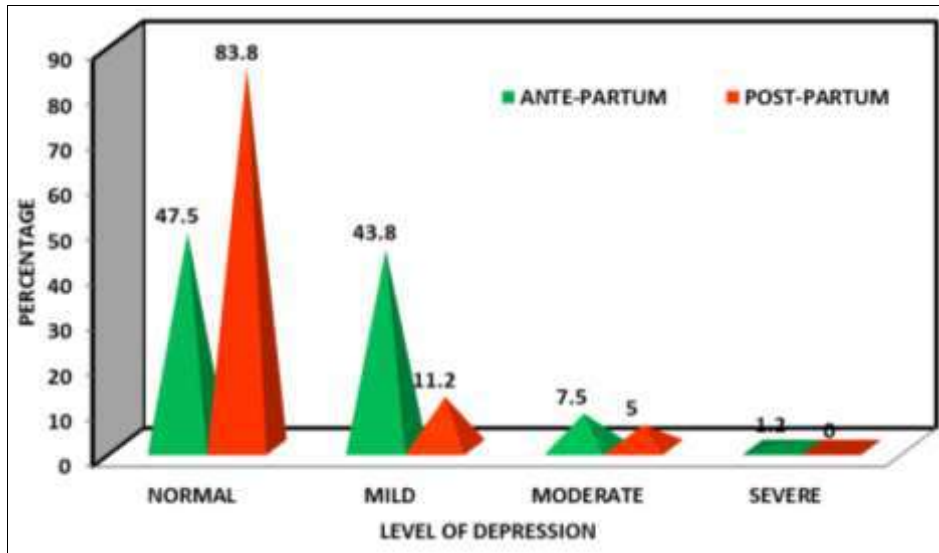**Fig 1:** Level of anxiety among women during antepartum and immediate postpartum period N=80

Fig 2: Level of depression among women during antepartum and immediate postpartum period

Table 3: Comparison of level of anxiety among women during antepartum and immediate postpartum period N=80

Level of Anxiety	Mean	SD	't' value	df	'p' value
Ante-partum	16.54	7.725	12.37	79	0.001*
Post-partum	4.70	4.187			

*p<0.05 level of significance

NS-Non significant

The comparison of the level of anxiety of the women during antepartum and immediate postpartum period was done using paired t test which revealed that (t=12.37, df=79, p value=0.001). It indicates that there is statistically high significant difference between level of anxiety during antepartum and immediate postpartum period.

Table 4: Comparison of level of depression among women during antepartum and immediate postpartum women N=80

Level of Depression	Mean	SD	't' value	df	'p' value
Ante-partum	8.00	4.013	6.219	79	0.001*
Post-partum	4.49	3.504			

*p<0.05 level of significance

NS-Non significant

The comparison of the level of depression of the women during antepartum and immediate postpartum period was done using paired t test which revealed that (t=6.219, df=79, p value=0.001). It indicates that there is statistically high significant difference between level of depression during antepartum and immediate postpartum period.

Table 5: Association between level of anxiety among antepartum women with their socio-demographic variables N=80

Demographic Variable	Normal	Mild	Moderate	Severe	Chi lue	df	p value
Age in years							
a. 19-27 years	14	7	18	6			
b. 28-36 years	11	11	8	4	6.021	6	0.421 NS
c. 37-45 years	0	0	1	0			
Age at marriage (in years)							
a. 19-27 years	20	16	22	7			
b. 28-36 years	5	2	5	3	1.547	3	0.672 NS
c. 37-45 years	0	0	0	0			
Religion							
a. Hindu	17	12	22	9			
b. Muslim	2	4	3	1	7.122	6	0.310 NS
c. Buddhist	6	2	2	0			
d. Christian	0	0	0	0			
Place of residence							
a. Rural	17	13	13	0	16.47	3	
b. Urban	8	5	14	10			0.001*
Marital status							
a. Married	25	18	27	10			
b. Unmarried	0	0	0	0		NA	
Educational qualification							
a. Below secondary	13	12	20	7			
b. Above secondary	12	6	7	3	2.966	3	0.397 NS
c. No formal education	0	0	0	0			
Occupation							
a. House maker	17	13	23	8			
b. Government employee	6	4	4	2	3.918	6	0.688 NS

c. Private employee	2	1	0	0			
d. Any other	0	0	0	0			
Income per month (in Rs)							
a. ≤10,000	22	13	22	7			
b. 10,001-20,000	2	1	3	0	7.603	6	0.269 NS
c. 20,001-35,000	1	4	2	3			
d. 35,001 and above	0	0	0	0			
Type of family							
a. Joint	14	10	16	5			
b. Nuclear	11	8	11	5	1.262	3	0.967 NS
c. Extended	0	0	0	0			
Family support system							
a. Supportive	21	15	22	8			
b. Satisfactory	3	3	5	2	2.671	6	
c. Not supportive	1	0	0	0			0.849 NS
Spouse support system							
a. Supportive	21	16	24	10			
b. Satisfactory	3	2	3	0	3.562	6	0.736 NS
c. Not supportive	1	0	0	0			
Pregnancy status							
a. Planned	22	15	24	10	1.811	3	0.613 NS
b. Unplanned	3	3	3	0			
Number of living children							
a. Yes	9	9	4	3	6.610	3	0.085 NS
b. No	16	9	23	7			

*p<0.05 level of significance
NS-Non significant

The association between level of anxiety during antepartum period with their demographic variables was tested by using chi square test at 0.05 level of significance. The demographic variables such as age in years, age at marriage, religion, marital status, education, occupation, income per month, type of family, family support system, spouse support system, pregnancy status and number of children was not significantly found association with level of anxiety among antepartum women except place of residence.

Table 6: Association between level of anxiety among immediate postpartum women with their socio- demographic variables N=80

Demographic Variable	Normal	Mild	Moderate	Chi value	df	p value
Age in years						
a) 19-27 years	43	1	1	0.849	4	0.932 NS
b) 28-36 years	33	0	1			
c) 37-45 years	1	0	0			
Age at marriage (in years)						
a) 19-27 years	62	1	2			
b) 28-36 years	15	0	0	0.719	2	0.689 NS
c) 37-45 years	0	0	0			
Religion						
a) Hindu	57	1	2			
b) Muslim	10	0	0	1.039	4	0.904 NS
c) Buddhist	10	0	0			
d) Christian	0	0	0			
Place of residence						
a) Rural	42	1	0	3.204	2	0.201 NS
b) Urban	35	0	2			
Marital status						
a) Married	77	1	2	NA		
b) Unmarried	0	0	0			
Educational qualification						
a) Below secondary	49	1	2	2		
b) Above secondary	28	0	0	1.678		0.432 NS
c) No formal education	0	0	0			
Occupation						
a) House maker	58	1	2			
b) Government employee	16	0	0	0.971	4	0.914 NS
c) Private employee	3	0	0			
d) Any other	0	0	0			
Income per month (in Rs)						

	Normal	Mild	Moderate	Chi value	df	p value
a) ≤10,000	61	1	2			
b) 10,001-20,000	6	0	0	0.779	4	0.941 NS
c) 20,001-35,000	10	0	0			
d) 35,001 and above	0	0	0			
Type of family						
a) Joint	44	1	0			
b) Nuclear	33	0	2	3.374	3	0.185 NS
c) Extended	0	0	0			
Family support system						
a) Supportive	65	0	1			
b) Satisfactory	11	1	1	7.055	4	0.133 NS
c) Not supportive	1	0	0			
Spouse support system						
a) Supportive	68	1	2			
b) Satisfactory	8	0	0	0.3956	4	0.983 NS
c) Not supportive	1	0	0			
Pregnancy status						
a) Planned	69	1	1	3.192	2	0.203 NS
b) Unplanned	8	0	1			
Number of living children						
a) Yes	25	0	0	1.417	2	0.492 NS
b) No	52	1	2			

*p<0.05 level of significance
NS-Non significant

The association between level of anxiety during immediate postpartum period with their demographic variables was tested by using chi square test at 0.05 level of significance. There was no significant association between level of anxiety and their demographic variables.

Table 7: Association between level of depression among antepartum women with their socio-demographic variables N=80

Demographic Variable	Normal	Mild	Moderate	Severe	Chi value	df	p value
Age in years							
a) 19-27 years	23	19	2	1			
b) 28-36 years	14	16	4	0	3.774	6	0.707 NS
c) 37-45 years	1	0	0	0			
Age at marriage (in years)							
a) 19-27 years	31	27	6	1			
b) 28-36 years	7	8	0	0	2.006	3	0.571 NS
c) 37-45 years	9	0	0	0			
Religion							
a) Hindu	27	27	5	1			
b) Muslim	5	5	0	0	2.186	6	0.902 NS
c) Buddhist	6	3	1	0			
d) Christian	0	0	0	0			
Place of residence							
a) Rural	17	23	2	1	5.124	3	0.163 NS
b) Urban	21	12	4	0			
Marital status							
a) Married	38	35	6	1			
b) Unmarried	0	0	0	0	NA		
Educational qualification							
a) Below secondary	25	24	3	0			
b) Above secondary	13	11	3	1	2 .657	3	0.448 NS
c) No formal education	0	0	0	0			
Occupation							
a) House maker	27	28	5	1			
b) Government employee	9	6	1	0	1.516	6	0.958 NS
c) Private employee	2	1	0	0			
d) Any other	0	0	0	0			
Income per month (in Rs)							
a) ≤10,000	33	26	4	1			
b) 10,001-20,000	2	3	1	0	3.060	6	0.801 NS
c) 20,001-35,000	3	6	1	0			
d) 35,001 and above	0	0	0	0			
Type of family							

					Chi value	df	p value
a) Joint	23	17	4	1			
b) Nuclear	15	18	2	0	2.163	3	0.539 NS
c) Extended	0	0	0	0			
Family support system							
a) Supportive	33	27	5	1			
b) Satisfactory	4	8	1	0	3.221	6	0.781 NS
c) Not supportive	1	0	0	0			
Spouse support system							
a) Supportive	35	30	5	1			
b) Satisfactory	2	5	1	0	3.086	6	0.798 NS
c) Not supportive	1	0	0	0			
Pregnancy status							
a) Planned	35	30	5	1	1.055	3	0.788 NS
b) Unplanned	3	5	1	0			
Number of living children							
a) Yes	11	11	3	0	1.531	3	0.675 NS
b) No	27	24	3	1			

*p<0.05 level of significance
NS-Non significant

The association between level of depression during antepartum period with their demographic variables was tested by using chi square test at 0.05 level of significance.

There was no significant association between level of depression and their demographic variables.

Table 8: Association between level of depression among immediate postpartum women with their Socio- demographic variables N=80

Demographic Variable	Normal	Mild	Moderate	Chi value	df	p value
Age in years						
a) 19-27 years	35	7	3			
b) 28-36 years	31	2	1	2.760	4	0.599 NS
c) 37-45 years	1	0	0			
Age at marriage (in years)						
a) 19-27 years	52	9	4			
b) 28-36 years	15	0	0	3.582	2	
c) 37-45 years	0	0	0			0.167 NS
Religion						
a) Hindu	50	6	4			
b) Muslim	7	3	0	6.209	4	0.184 NS
c) Buddhist	10	0	0			
d) Christian	0	0	0			
Place of residence						
a) Rural	35	7	1	3.482	2	0.175 NS
b) Urban	32	2	3			
Marital status						
a) Married	67	9	4	NA		
b) Unmarried	0	0	0			
Educational qualification						
a) Below secondary	44	4	4			
b) Above secondary	23	5	0	3.839	2	0.147 NS
c) No formal education	0	0	0			
Occupation						
a) House maker	50	8	3			
b) Government employee	14	1	1	1.227	4	0.874 NS
c) Private employee	3	0	0			
d) Any other	0	0	0			
Income per month (in Rs)						
a) ≤10,000	52	8	4			
b) 10,001-20,000	5	1	0	2.734	4	0.603 NS
c) 20,001-35,000	10	0	0			
d) 35,001 and above	0	0	0			
Type of family						
a) Joint	37	6	2			
b) Nuclear	30	3	2	0.489	2	0.783 NS
c) Extended	0	0	0			
Family support system						
a) Supportive	54	8	4			

b) Satisfactory	12	1	0	1.326	4	0.857 NS
c) Not supportive	1	0	0			
Spouse support system						
a) Supportive	58	9	4			
b) Satisfactory	8	0	0	1.968	4	0.742 NS
c) Not supportive	1	0	0			
Pregnancy status						
a) Planned	60	7	4	1.635	2	0.441 NS
b) Unplanned	7	2	0			
Number of living children						
a) Yes	22	1	2	2.432	2	0.296 NS
b) No	45	8	2			

*p<0.05 level of significance
NS-Non significant

There was no significant association between level of depression and their demographic variables.

Discussion
These findings of the present study are consistent to the findings reported by Silwa Muna et al. [3] where 8% of the subjects had severe level of anxiety, 22% had moderate and 70% had mild level of anxiety.

The findings of the present study are similar to the findings reported by Priyambada Krishna et al. [5] which finds a significantly higher antenatal anxiety during third trimester of pregnancy.

The findings of the study are inconsistent with the findings of the study of Rahila Ghaffar, Qaiser Iqbal, Adnan Khalid, Fahad Saleem et al. [6] which depicted that urban pregnant women were suffering from anxiety and depression.

The findings of the study are inconsistent with the findings of the study of Priya Adity, Chaturvedi Sanjay et.al.[7] which depicted that 25.5% and 63% antenatal women from urbanized village.

Conclusion
The present study concluded that 68.8% women had anxiety during antepartum period and 3.8% women had anxiety during immediate postpartum period whereas 52.5% women had depression during antepartum period and 16.2% women had depression during immediate postpartum period. Therefore, there is a need to incorporate screening for anxiety and depression in antenatal period and providing practical support to women during pregnancy. Pregnancy-related anxiety must be identified early during routine antenatal care to prevent any untoward pregnancy outcomes.

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