

## Comparison of Anxiety Between Normotensive and Pregnancy Induced Hypertensive Antenatal Mothers.



### Nursing

**KEYWORDS :** Normotensive antenatal mother, Pregnancy induced hypertensive antenatal mother, Anxiety.

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### ABSTRACT

*A study was conducted to compare anxiety level of normotensive and pregnancy induced hypertensive antenatal mothers in a selected hospital of Delhi. One shot case study research design was adopted. The samples consisted of 30 normotensive and 30 pregnancy induced hypertensive antenatal mothers. The tools used were interview schedule and Modified C.D. Spielberger State Trait Anxiety Inventory Scale. The study was conducted in the antenatal wards of Safdarjung hospital, New Delhi from 15th December 2013 to 8th January 2014. Data collected from mothers after one day of giving information regarding self care during pregnancy. The major findings of the study were, The mean post-test anxiety scores (34.1) of pregnancy induced hypertensive antenatal mothers was higher than the mean post- test anxiety scores of normotensive antenatal mothers (33.97) with 't' value (0.058) which was not significant indicating no significant difference between anxiety levels of normotensive and pregnancy induced hypertensive antenatal mothers after giving information regarding self care during pregnancy. There was significant association found between post-test anxiety scores and parity of pregnancy induced hypertensive antenatal mothers. According to parity, multigravida pregnancy induced hypertensive antenatal mothers had more anxiety level than primigravida pregnancy induced hypertensive antenatal mothers.*

### Introduction:

Pregnancy and childbirth is one of the most beautiful experiences in a woman's life and very special journey for her. Generations of woman have travelled the same route, but each journey is unique. It can be an awesome and wonderful part of a woman's life but on the other hand mothers are the most vulnerable group during pregnancy. Third trimester of pregnancy is a crucial time for the antenatal mothers and hospitalization may lead to increase the anxiety level so researcher felt the need for assess the anxiety level of normotensive and pregnancy induced hypertensive antenatal mothers admitted in antenatal wards of a selected hospital.

### Objectives of the Study were to:

- (1) Assess and compare the anxiety of normotensive antenatal mothers with pregnancy induced hypertensive antenatal mothers after giving information on self care during pregnancy.
- (2) Determine the association between post-test anxiety of normotensive antenatal mothers with selected variables in terms of (a) age (b) education (c) parity.
- (3) Determine the association between post-test anxiety of pregnancy induced hypertensive antenatal mothers with selected variables in terms of (a) age (b) education (c) parity.

### Research Hypothesis:

**H<sub>1</sub>** There will be a significant difference between means of post-test anxiety scores of normotensive and pregnancy induced hypertensive antenatal mothers as measured by modified C.D. Spielberger's State Trait Anxiety Inventory Scale at 0.05 level of significance.

**H<sub>2</sub>** There will be a significant association between mean post-test anxiety scores of normotensive antenatal mothers with selected variables as measured by modified C.D. Spielberger's State Trait Anxiety Inventory scale at 0.05 level of significance in terms of:

- (a) Age
- (b) Education
- (c) Parity

**H<sub>3</sub>** There will be a significant association between mean post-test anxiety scores of pregnancy induced hypertensive antenatal mothers with selected variables as measured by modified C.D. Spielberger's State Trait Anxiety Inventory scale at 0.05 level of significance in terms of:

- (a) Age

(b) Education

(c) Parity

### Operational Definition:

**Anxiety:** It refers to the expression of emotional reaction of an antenatal mother between 28-37 weeks of gestation to the structured modified Spielberger's State Trait Anxiety Inventory Scale at the end of intervention.

### Review of Literature:

**Rubertsson, C. et al. (2014)** conducted a research study to estimate the prevalence of anxiety symptoms during the first trimester of pregnancy. Total 916 women (78 %) were investigated in the first trimester (gestation week 8-12). The Hospital Anxiety Depression Scale (HADS-A) was used to measure anxiety symptoms. The prevalence of anxiety symptoms was 15.6 % in early pregnancy. Women under 25 years of age, woman who reported high school as their highest level of education, were unemployed and had a self-reported psychiatric history of either depression or anxiety before their current pregnancy were all at an increased risk of anxiety symptoms during early pregnancy.

**Liou, S. R. et al. (2013)** conducted a prospective longitudinal survey to explore maternal psychological distress throughout the perinatal period. The participants were recruited after 24 completed weeks of gestation, and were followed-up monthly until one month post partum. Inclusion criteria were: age  $\geq 18$  years, singleton pregnancy and no pregnancy complications (including a diagnosis of antenatal depression or anxiety disorder). In total, 197 women completed all four surveys. Anxiety was measured with the Zung Self-reported Anxiety Scale. Participants were followed-up at four time points: T1 (25-29 gestational weeks), T2 (30-34 gestational weeks), T3 ( $>34$  gestational weeks) and T4 (4-6 weeks post partum). Result found that the anxiety levels increased as gestation advanced but declined after birth.

**Cesar, T. et al. (2009)** done a research study to analyze anxiety in women during pregnancy, namely differences between the 1st, 2nd and 3rd pregnancy trimesters, between primiparous and multiparous. A sample of 300 women were recruited during the 1<sup>st</sup> pregnancy trimester and have completed the STAI-S (State Anxiety Inventory) in the 1st, 2nd and 3rd pregnancy trimesters. Result found that anxiety symptoms are particularly high in primiparous and multiparous women during the 1<sup>st</sup> trimester.

**Methodology:**

A pre experimental research approach with one shot case study research design was used for the study. Sample was consisted of 30 normotensive and 30 pregnancy induced hypertensive antenatal mothers with period of gestation between 28-37 weeks admitted in antenatal wards Safdarjung hospital, New Delhi. Subjects were selected by purposive sampling technique. Data on sample characteristics was collected by using an interview schedule. For the measurement of level of anxiety the modified C.D. Spielberger State Trait Anxiety Inventory (STAI) scale was used and data collected by face to face interview. The state anxiety scores were arbitrarily interpreted as, score 20-35: Mild level of anxiety, score 36-51: Moderate level of anxiety, score 52-67: Severe level of anxiety, score 68-83: Extreme severe level of anxiety. Before data collection the content validity of tools were established by consulting with 11 experts. After obtaining formal administrative permission, tryout of the tool was done on 10 normotensive and 10 pregnancy induced hypertensive antenatal mothers. The reliability of the structured interview schedule for sample characteristics was established by inter-observer reliability and the percentage agreement was 100. The reliability of the modified C.D. Spielberger's State Trait Anxiety Inventory scale was established by using Cronbach alpha method and the reliability was 0.75. Pilot study was conducted on 10 normotensive and 10 pregnancy induced hypertensive mothers. After selecting subjects researcher had taken signature of antenatal mother and relatives on written consent form. Information was given regarding the self care during pregnancy to antenatal mother individually then after one day assessment of anxiety was done. Ethical clearance from the research board of Rajkumari Amrit Kaur College of Nursing and administrative approval from the Vardhman Mahaveer Medical College & Safdarjung Hospital was taken before conducting study.

**Findings:**

**Table-1:** Frequency and percentage distribution of normotensive and pregnancy induced hypertensive antenatal mothers by age, religion, education, occupation, type of diet, life style, medical problem during pregnancy, previous surgical problem, Past obstetrical problem, Parity, Period of gestation.

**N=60**

S. No	Sample Characteristics	Normotensive Antenatal Mother (n=30)		Pregnancy Induced Hypertensive Antenatal Mother (n=30)		Total	
		Frequency	%	Frequency	%	Frequency	%
1.	<b>Age in Years:</b>						
	(1.1) Below 20 Years	05	16.67	01	3.33	06	10
	(1.2) 20-25 Years	17	56.67	11	36.67	28	46.67
	(1.3) 26-30 Years	07	23.33	12	40	19	31.67
(1.4) Above 30 Years	01	3.33	06	20	07	11.66	
2.	<b>Religion:</b>						
	(2.1) Hindu	23	76.67	26	86.67	49	81.67
	(2.2) Muslim	06	20	02	6.67	08	13.33
	(2.3) Christian	01	3.33	01	3.33	02	3.33
(2.4) Any other	0	0	01	3.33	01	1.67	
3.	<b>Education:</b>						
	(3.1) No formal education	04	13.33	06	20	10	16.67
	(3.2) Primary	06	20	0	0	06	10
	(3.3) Secondary	10	33.34	11	36.67	21	35
	(3.4) Higher secondary	04	13.33	08	26.67	12	20
	(3.5) Graduate	05	16.67	04	13.33	09	15
(3.6) Post graduation and above	01	3.33	01	3.33	02	3.33	

4.	<b>Occupation:</b>						
	(4.1) Home maker/ Not working	26	86.67	25	83.34	51	85
	(4.2) Govt. service	01	3.33	01	3.33	02	3.33
	(4.3) Private service	02	6.67	03	10	05	8.33
(4.4) Any other	01	3.33	01	3.33	02	3.33	
5.	<b>Type of Diet</b>						
	(5.1) Vegetarian	08	26.67	14	46.67	22	36.67
(5.2) Non vegetarian	22	73.33	16	53.33	38	63.33	
6.	<b>Life Style:</b>						
	(6.1) Active	27	90	28	93.33	55	91.67
(6.2) Sedentary	03	10	02	6.67	05	8.33	
7.	<b>Medical Problem of Mother During Pregnancy.</b>						
	(1.1)Yes	10	33.33	15	50	25	41.67
	(1.1.1) Diabetes	06	20	03	10	09	15
	(1.1.2) Epilepsy	01	3.33	01	3.33	02	3.33
	(1.1.3) Jaundice	02	6.67	0	0	02	3.33
	(1.1.4) Any Other (Anaemia, Dengue)	03	10	12	40	15	25
	(1.2)No	20	66.67	15	50	35	58.33
8.	<b>Previous Operations if Any</b>						
	(2.1)Yes	4	13.33	4	13.33	8	13.33
	(2.2)No	26	86.67	26	86.67	52	86.67
9.	<b>Past Obstetrical Problem</b>						
	(9.1) Abortion	05	16.67	11	36.67	16	26.67
	(9.2) Still Birth / Neonatal Loss	06	20	03	10	09	15
	(9.3) Nil Significant	20	66.67	16	53.33	36	60
10.	<b>Parity</b>						
	(8.1) Primigravida	11	36.67	07	23.33	18	30
(8.2) Multigravida	19	63.33	23	76.67	42	70	
11.	<b>Period of Gestation</b>						
	(10.1) 28 weeks - 32weeks	03	10	07	23.33	10	16.67
(10.2) 33weeks - 37weeks	27	90	23	76.67	50	83.33	

**Table-2:** Mean, Median and Standard Deviation of Post-test Anxiety Scores of Normotensive and Pregnancy Induced Hypertensive Antenatal Mothers.

**N=60**

Anxiety Score	Normotensive Antenatal Mother (n=30)				Pregnancy Induced Hypertensive Antenatal Mother (n=30)			
	Mean	Median	SD	Range of Score	Mean	Median	SD	Range of score
Post-test	33.97	33.5	8.77	20-56	34.1	34	9.01	20-63

**The maximum possible score is 83.**

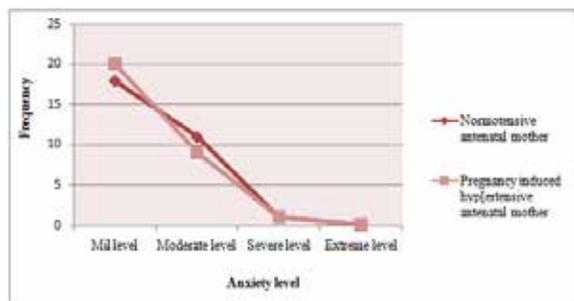
The data presented in Table-2 shows that in case of both the groups the mean and median fall close to each other suggesting a distribution closer to normal so in both the groups, the anxiety level was approximately same.

**Table- 3:** Frequency Distribution of Post-test Anxiety Scores of Normotensive and Pregnancy Induced Hypertensive Antenatal Mothers.

N=30

Class Interval	Frequency	
	Normotensive Antenatal Mothers	Pregnancy Induced Hypertensive Antenatal Mothers
20-35 (Mild Level Anxiety)	18	20
36-51 (Moderate Level Anxiety)	11	9
52-67 (Severe Level Anxiety)	1	1
68-83 (Extreme Level Anxiety)	0	0

The data presented in Table-3 revealed that in the normotensive antenatal mother group for the post-test anxiety scores the maximum subjects (18) had mild anxiety level, 11 had moderate anxiety level and only 1 had severe. In the pregnancy induced hypertensive antenatal mothers group maximum subjects (20) had mild anxiety level, 9 had moderate level anxiety and only 1 had severe.



**Figure 1:** Line Graph Showing the Distribution of Post-Test Anxiety Scores of Normotensive and Pregnancy Induced Hypertensive Antenatal Mothers.

**Table-4:** Mean, Mean Difference (M<sub>D</sub>), Standard Deviation (SD), Standard Error of Mean Difference (SE<sub>MD</sub>) and 't' value of Post-test Anxiety Scores of Normotensive and Pregnancy Induced Hypertensive Antenatal Mothers.

N=60

GROUP	Mean	M <sub>D</sub>	SD	SE <sub>MD</sub>	't' Value
Normotensive Antenatal Mother(n=30)	33.97	0.133	8.88	2.29	0.058 <sup>NS</sup>
Pregnancy Induced Hypertensive Antenatal Mother(n=30)	34.1				

\* Significant 't' value df (58)=2 p<0.05

The data presented in Table-4 shows that there was no significant difference between the anxiety levels of normotensive and pregnancy induced hypertensive antenatal mothers after giving information about self care during pregnancy.

**Table-5**

Chi square Value Showing Association between Post-test Anxiety Scores and Selected Variables of Normotensive Antenatal Mothers.

N=30

Selected Variables	Frequency of Subjects(n)		df	Chi sq
	Below Median	Above Median		
<b>Age</b>				
<20 yrs	3	2	3	3.956 <sup>NS</sup>
20-25 yrs	6	11		
26-30yrs	5	2		
>30 yrs	1	0		
<b>Education</b>				
No formal education	2	2	5	5.867 <sup>NS</sup>
Primary	5	1		
Secondary	4	6		
Higher secondary	2	2		
Graduate	1	4		
Post graduation and above	1	0		
<b>Parity</b>				
Primi gravida	4	7	1	1.292 <sup>NS</sup>
Multi gravid	11	8		

\* Significant at 0.05 level, of significance, NS: not significant

df(1),  $\chi^2=3.841, p \leq 0.05$

df(3),  $\chi^2= 7.815 , p \leq 0.05$

df(5),  $\chi^2= 11.070 , p \leq 0.0$

The data presented in Table-5 shows that there was no significant association between post-test anxiety scores and selected variables like age, education, parity of normotensive antenatal mothers.

**Table-6**

Chi square Value Showing Association between Post-test Anxiety Scores and Selected Variables in Pregnancy Induced Hypertensive Antenatal Mothers.

N=30

Selected Variables	Frequency		df	Chi sq
	Below Median	Above Median		
<b>Age</b>				
<20 yrs	1	0	3	5.061 <sup>NS</sup>
20-25 yrs	7	4		
26-30yrs	3	8		
>30 yrs	3	1		
<b>Education</b>				
No formal education	2	4	3	2.376 <sup>NS</sup>
Secondary	7	3		
Higher secondary	3	4		
Graduate	2	2		
<b>Parity</b>				
Primigravida	7	0	1	8.775*
Multigravida	7	13		

\* Significant at 0.05 level of significance NS: not significant

df(1),  $\chi^2=3.841, p \leq 0.05$

df(3),  $\chi^2= 7.815 , p \leq 0.05$

The data presented in Table-6 shows that there was no significant association between post-test anxiety scores and selected variables like age, education of pregnancy induced hypertensive antenatal mothers but had significant association between post-test anxiety score and parity.

**Nursing Implication:**

- Nurses during providing care to normotensive and pregnancy induced hypertensive antenatal mothers should take care to decrease anxiety level of mother by various means.
- Nursing administrator should take step to decrease the anxiety level of antenatal mothers by formulating nursing protocol.
- Nursing educators should teach mothers the ways by which mother can reduce their anxiety.
- Nurses may replicate clinical research on antenatal mothers with different trimester, on subjects of different age groups.

**Recommendations:**

1. The study can be replicated on large sample.
2. A study can be performed in different settings like community or among the mother getting treatment in private hospitals.
3. A comparative study can be done to assess anxiety level in 1<sup>st</sup> and 3<sup>rd</sup> trimester of pregnancy.

**Conclusion:**

There was no significant difference between anxiety level of normotensive and pregnancy induced hypertensive antenatal mothers after giving information regarding self care during pregnancy. There was significant association between anxiety level of pregnancy induced hypertensive antenatal mothers with parity.

**REFERENCE**

- Cesar, T. et al. (2009). Anxiety and depression during pregnancy in women and men. *Journal of Affective Disorders*, 119, 142–148. | | Ross, L.E. et al. (2006). Anxiety disorders during pregnancy and the postpartum period: A systematic review. *Journal of Clinical Psychiatry*, 67(8), 1285–1298. | | Rubertsson, C. et al. (2014). Anxiety in early pregnancy: prevalence and contributing factors. *International journal of Gynaecology and Obstetrics*. 36(54), 1067–1073 | | Schofield, C.A. et al. (2014). Symptoms of the anxiety disorders in a perinatal psychiatric sample: a chart review. *The Journal of Nervous and Mental Disease*. 202(2), 154–160. | | Uguz, F. et al. (2013). Maternal generalized anxiety disorder during pregnancy and fetal brain development: a comparative study on cord blood brain-derived neurotrophic factor levels. *Journal of Psychosomatic Research*, 75(4), 346–350. | | Zhang, S. et al. (2013). Prenatal anxiety and cesarean section with non-medical indication. *Zhong Nan Da Xue Xue Bao Yi Xue Ban*. 38(10), 1070–1074