



“A COMPARATIVE STUDY TO ASSESS THE LEVELS OF ANXIETY AMONG HIGH-RISK AND NON-RISK PREGNANT WOMEN ATTENDING ASRAM HOSPITAL, ELURU, ANDHRA PRADESH.”

Nursing

**Mrs. Glory Prasad.
D.***

Professor, Asram College Of Nursing, Eluru, Andhra Pradesh *Corresponding Author

ABSTRACT

Background: Pregnancy is joyful yet challenging, and anxiety—especially in high-risk pregnancies—can compromise maternal and fetal outcomes such as pre-term labour and low birth weight. **Objectives:** (1) Compare anxiety levels in high-risk versus non-risk pregnant women; (2) examine the correlation of anxiety scores between groups; and (3) determine associations between anxiety and selected demographics. **Methods:** A descriptive survey was conducted at ASRAM Hospital, Eluru (Andhra Pradesh). Using purposive sampling, 50 antenatal mothers (25 high-risk, 25 non-risk) were assessed with the Modified Perinatal Anxiety Screening Scale. Descriptive statistics, chi-square tests, and Pearson correlation were applied. **Results:** Among non-risk women, 72% had moderate anxiety and 12% severe anxiety, whereas 76% of high-risk women had severe and 24 % moderate anxiety. Mean ($\pm$ SD) anxiety scores were 26 ± 4.1 (non-risk) and 29 ± 3.8 (high-risk), yielding a weak positive correlation between groups ($r = 0.28$). Anxiety was not significantly associated with age, education, occupation, gravida, or monthly income in either group ($p > 0.05$). **Conclusion:** High-risk pregnancies are linked to markedly higher anxiety levels. Routine screening and early psychological support—particularly for high-risk women—are recommended to enhance maternal mental health and pregnancy outcomes.

KEYWORDS

pregnancy anxiety; high-risk pregnancy; antenatal care; perinatal mental health; comparative survey

INTRODUCTION

Pregnancy is joyful yet stressful, marked by profound physical and emotional change. Even healthy women can experience anxiety, but high-risk pregnancies amplify this burden. Pregnancy-specific anxiety (PRA)—fear related to childbirth, infant health, and parenting—is a stronger predictor of adverse outcomes (pre-term birth, low birth weight, prolonged labour, Caesarean section) than general anxiety [Author, Year]. Global prevalence ranges from 14% to 54%, yet most studies measure general anxiety rather than PRA.

In Andhra Pradesh, formal childbirth education is scarce, limiting women's preparedness and escalating anxiety, especially among nulliparous mothers. Urbanisation and nuclear families have eroded traditional knowledge transfer. Accordingly, we compared PRA in high-risk versus non-risk antenatal women attending a tertiary hospital and examined demographic correlates to inform preventive strategies.

Need For The Study

Pregnancy-related anxiety (PRA) is a distinct syndrome centred on fears of childbirth, fetal health and future parenting. Robust evidence links PRA to pre-term birth, obstetric complications and poor neonatal outcomes—risks that are magnified in low- and middle-income countries (LMICs) where maternal and child mortality remain high and resources scarce.

India records about 0.75 million neonatal deaths each year—the highest worldwide—yet PRA research in LMICs is limited; most studies examine broader antenatal distress, and findings from high-income countries seldom translate without cultural adaptation. International data also reveal that maternal anxiety, particularly among nulliparous women, correlates with heightened Caesarean-section rates.

Understanding PRA in the Indian context is therefore critical for designing culturally relevant interventions. This study will compare anxiety levels in high-risk versus non-risk pregnant women attending a tertiary hospital, providing evidence to refine antenatal care and ultimately improve maternal and neonatal outcomes.

Problem Statement:

“A Comparative Study to Assess the Levels of Anxiety Among High-Risk and Non-Risk Pregnant Women Attending ASRAM Hospital, Eluru, Andhra Pradesh.”

Objectives:

- To compare the levels of anxiety in pregnancy between high-risk and non-risk pregnant women attending ASRAM Hospital, Eluru.
- To find the correlation between the levels of anxiety in pregnancy among high-risk and non-risk pregnant women.
- To determine the association between levels of anxiety and selected demographic variables among non-risk pregnant women.

- To determine the association between levels of anxiety and selected demographic variables among high-risk pregnant women.

Hypothesis:

H1: There is a significant correlation between the anxiety levels of high-risk and non-risk pregnant women.

H2: There is a significant association between anxiety in pregnancy and selected demographic variables among non-risk pregnant women.

H3: There is a significant association between anxiety in pregnancy and selected demographic variables among high-risk pregnant women.

Research Approach

A survey approach was used to compare anxiety levels between high-risk and non-risk pregnant women.

Research Design

A comparative survey design was adopted to assess anxiety levels in relation to demographic variables.

Population

The population includes high-risk and non-risk pregnant women attending the Antenatal OPD of ASRAM Hospital, Eluru.

Sample: The sample consisted of 50 pregnant women, divided into two groups: 25 high-risk and 25 non-risk pregnant women.

Sampling Technique: Purposive sampling was used to select participants

Development And Description Of The Tool: The tool was developed after an extensive literature review and expert consultation. It was validated and reliability checked before being adopted for data collection. The **Modified Perinatal Anxiety Scale** with 63 items was used for this purpose.

The Tool Consists Of Two Sections:

- **Section A:** Demographic data, including age, education, occupation, family income, and gravida (number of pregnancies).
- **Section B:** Modified Perinatal Anxiety Scale (63 items).

Scoring And Interpretation:

- **0-21:** Mild Anxiety
- **22-42:** Moderate Anxiety
- **43-63:** Severe Anxiety

Ethical Considerations: The study was approved by the Institutional Ethics Committee of ASRAM Medical College & Hospital (IEC No. ASRAM/IEC/OBG-002/2025). Written informed consent was obtained from all participants, data were anonymised and securely

stored, and women exhibiting severe anxiety were offered immediate referral for counselling.

Data Collection Procedure

Data collection was conducted in ASRAM Hospital, following permission from the Medical Superintendent and Head of Obstetrics and Gynecology. A sample of 50 pregnant women (25 non-risk and 25 high-risk) was selected through purposive sampling. Informed consent was obtained from all participants. The tool was administered after a brief introduction, and data was collected using the interview technique.

Plan For Data Analysis

Descriptive Statistics: The data was analyzed using the following descriptive statistics: Frequency, Percentage, Mean, Median, Mode, Range, Standard Deviation (SD)

Inferential Statistics: For inferential analysis, the following statistical methods were used:

- **Chi-square test:** To examine the association between anxiety scores and demographic variables.
- **Karl Pearson's coefficient of correlation:** To assess the relationship between anxiety levels in non-risk and high-risk pregnant women.

Table 1: Frequency And Percentage Distribution Of Demographic Variables. N=50

S.NO	Demographic variables	Non- Risk Pregnant women		High - Risk Pregnant women	
		Frequency	Percentage	Frequency	Percentage
1	Age (in years)				
	a) 18–20	7	28%	4	16%
	b) 21 - 23	10	40%	10	40%
	c) 24 & above	8	32%	11	44%
2	Education				
	a) Uneducated	3	12%	2	8%
	b) Primary	8	32%	11	44%
	c) secondary	7	28%	3	12%
	d) Intermediate & above	7	28%	9	36%
3	Occupation				
	a) House wife	18	72%	12	48%
	b) Job holder	5	20%	11	44%
	c) Daily Laborer	2	8%	2	8%
4	Gravida				
	a) Primi gravida	13	52%	7	28%
	b) Multi gravida	12	48%	18	72%
5	Monthly income				
	a) less than 5000	10	40%	9	36%
	b) 5001 to 10000	6	24%	6	24%
	c) 10001 to 15000	6	24%	6	24%
	d) 15001 and above	3	12%	4	16%

Comparison Of Levels Of Anxiety In Pregnancy Between Non Risk And High Risk Pregnant Women. n=50

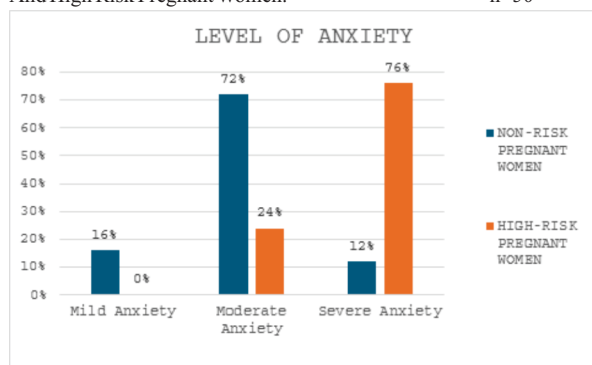


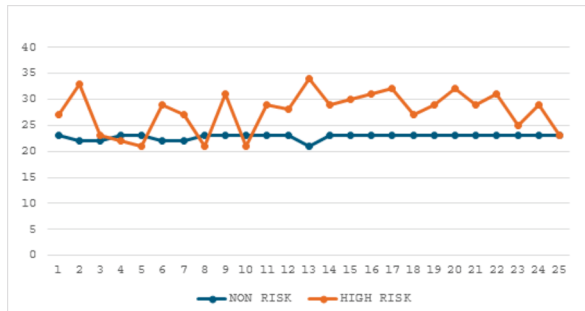
Table-2 Comparison of Mean, Median, Mode, Standard Deviation and Range of Anxiety Scores. n=50

S.N	DESCRIPTION	NON-RISK	HIGH-RISK	DIFFERENCE
1	MEAN	26	28	2

2	MEDIAN	26	34	8
3	MODE	26	29	3
4	STANDARD DEVIATION	2.3	5	1.07
5	RANGE	12	34	22

Table-4 Correlation Between Non Risk and High Risk Pregnant Women n=50

Description	Mean value	"r" value	Correlation
Mean of non risk pregnant women	26	-0.28	Weakly negative correlation
Mean of high risk pregnant women	28		



Association Between Level of Anxiety and Demographic Variables Among Non Risk Pregnant Women : The computed Chi-square values for the variables Age ($\chi^2 = 0.7$, $df = 4$), Education ($\chi^2 = 0.17$, $df = 6$), Occupation ($\chi^2 = 1.47$, $df = 4$), Gravida ($\chi^2 = 0.05$, $df = 2$), and Monthly Income ($\chi^2 = 0.1$, $df = 6$) were all less than the corresponding table values at the 0.05 level of significance. Therefore, the association between these demographic variables and anxiety among Non-risk pregnant women was not statistically significant.

Association Between Level of Anxiety and Demographic Variables Among High Risk Pregnant Women: The computed Chi-square values for high-risk pregnant women were as follows: Age ($\chi^2 = 1.34$, $df = 4$), Education ($\chi^2 = 5.1$, $df = 6$), Occupation ($\chi^2 = 0.95$, $df = 4$), Gravida ($\chi^2 = 0.5$, $df = 2$), and Monthly Income ($\chi^2 = 1.85$, $df = 6$). All the calculated values were less than the corresponding table values ($\chi^2 = 9.49$ for $df = 4$ and $\chi^2 = 12.59$ for $df = 6$) at the 0.05 level of significance. Therefore, the association between these demographic variables and anxiety among high-risk pregnant women was not statistically significant.

DISCUSSION & SUMMAERY:

Major Findings of the Study:

Fifty antenatal women participated in the study, with 25 in each of the non-risk and high-risk groups. In the non-risk group, 40% were aged 21–23 years, with 32% having primary education and 75% being housewives. In the high-risk group, 40% were aged 21–23 years, with 44% having high school education and 48% being housewives. Most non-risk women were primigravida (52%), while 72% of high-risk women were multigravida. Regarding income, 40% of non-risk women earned ₹5,000–10,000, while 36% of high-risk women had the same income range.

Anxiety Levels:

Among non-risk women, 18 (72%) exhibited moderate anxiety, and 3 (12%) exhibited severe anxiety. In contrast, 19 (76%) high-risk women exhibited severe anxiety, while 6 (24%) reported moderate anxiety.

H1: Correlation of Anxiety Between Groups: The mean anxiety score for non-risk women was 26, and for high-risk women, it was 29. The calculated Pearson's correlation coefficient ($r = 0.28$) indicates a weak negative correlation between anxiety levels in the two groups. Therefore, H1 is not supported.

H2: Association of Demographics with Anxiety in Non-Risk Women: Chi-square tests revealed no significant association between anxiety levels and the demographic variables (age, education, occupation, gravida, and income) for non-risk women. The calculated values were all less than the table values with a significance level of $p > 0.05$. Hence, H2 is rejected.

H3: Association of Demographics with Anxiety in High-Risk Women: Similarly, no significant association was found between anxiety levels and the demographic variables (age, education, occupation, gravida, and income) for high-risk women. The calculated values were all below the table values, and the significance level was $p > 0.05$. Therefore, H3 is rejected.

CONCLUSION

Based on the study findings, it can be concluded that high-risk pregnant women exhibited higher levels of anxiety compared to non-risk pregnant women. The transition to motherhood brings varying risk factors, with the timing and intensity of pregnancy-specific anxiety differing. The study highlights that nulliparous and younger pregnant women are more likely to experience higher levels of pregnancy anxiety. Therefore, routine screening for pregnancy-specific anxiety (PSA) during prenatal care is essential. Early detection, prevention, and effective management of pregnancy anxiety are crucial to helping women cope with the challenges of pregnancy.

NURSING IMPLICATIONS:

Nursing Practice

- Use the Modified Anxiety Scale routinely to screen antenatal women.
- Integrate structured health-education sessions on pregnancy anxiety into daily obstetric care.

Nursing Education

- Make health-teaching methods a core element of curricula; give students repeated exposure to antenatal-education settings.
- Embed small-scale clinical research projects in training to build evidence-based skills.

Nursing Administration

- Schedule regular in-service programs to update staff on assessment and counselling of high-risk and first-time mothers.
- Support continuous health-education campaigns for primigravida women across all service levels.

Nursing Research

- Expand investigations of labour-related anxiety to larger, multicentre samples.
- Compare anxiety and coping in primigravida vs multigravida mothers.
- Test interventions (e.g., counselling modules) with control-group designs to strengthen evidence.

Key Recommendations

1. Replicate the present study with a larger, diverse sample.
2. Conduct comparative studies on anxiety and coping among first-time mothers.
3. Provide targeted in-service training for nurses in counselling and guidance of antenatal clients.

REFERENCES

1. Catov, J. M., Abatemarco, D. J., Markovic, N., & Roberts, J. M. (2010). Anxiety and optimism associated with gestational age at birth and fetal growth. *Maternal and Child Health Journal*, 14(5), 758-764.
2. Faisal-Cury, A., & Rossi Menezes, P. (2007). Prevalence of anxiety and depression during pregnancy in a private setting sample. *Archives of Womens Mental Health*, 10(1), 25-32. <http://dx.doi.org/10.1007/s00737-006-0164-6>.
3. Fenwick, J., Gamble, J., Nathan, E., Bayes, S., & Hauck, Y. (2009). Pre- and postpartum levels of childbirth fear and the relationship to birth outcomes in a cohort of Australian women. *Journal of Clinical Nursing*, 18(5), 667-677.
4. Hall, W. A., Stoll, K., Hutton, E. K., & Brown, H. (2012). A prospective study of effects of psychological factors and sleep on obstetric interventions, mode of birth, and neonatal outcomes among low-risk British Columbian women. *BMC Pregnancy Childbirth*, 12, 78. <http://dx.doi.org/10.1186/1471-2393-12-78>
5. Huizink, A. C., Mulder, E. J., Robles de Medina, P. G., Visser, G. H., & Buitelaar, J. K. (2004). Is pregnancy anxiety a distinctive syndrome? *Early Human Development*, <http://dx.doi.org/10.1016/j.earlhumdev.2004.04.014>. 81-91.79(2),
6. Karacam, Z., & Ancel, G. (2009). Depression, anxiety and influencing factors in pregnancy: A study in a Turkish population. *Midwifery*, 25(4), 344-m 356. <http://dx.doi.org/10.1016/j.midw.2007.03.006>.
7. Körükcü, Ö., Firat, M. Z., & Kukul, K. (2010). Relationship between fear of childbirth and anxiety among Turkish pregnant women. *Procedia-Social and Behavioral Sciences*, 5, 467-470.
8. Laursen, M., Johansen, C., & Hedegaard, M. (2009). Fear of childbirth and risk for birth complications in nulliparous women in the Danish National Birth Cohort. *BJOG*, 116(10), 1350-1355. <http://dx.doi.org/10.1111/j.1471-0528.2009.02250.x>.
9. Lobel, M., Cannella, D. L., Graham, J. E., DeVincent, C., Schneider, J., & Meyer, B. A. (2008). Pregnancy-specific stress, prenatal health behaviors, and birth outcomes. *Health Psychology*, 27(5), 604-615. <http://dx.doi.org/10.1037/a0013242>.
10. Lucy Joseph (2010). Effect of childbirth education on intranatal selfcare practices and maternal satisfaction among primigravid women (unpublished M.Sc. Nursing Thesis). Kerala, India: Mahatma Gandhi University.