

A Comparative Study To Assess The Anxiety Related To Pregnancy And Delivery Of The Baby Among Primigravida Mothers In Selected Rural And Urban Areas Of Maharashtra

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Primigravida mothers are those who conceived for the first time. There are many changes occur during the pregnancy that make them very stressful. And respond to this stress by feeling anxious which may be influenced on the woman herself and her baby. As anxiety and fear of childbirth may cause many complications such as severe labor pain, postpartum depression, and impaired

mother–fetus attachment. Many studies support the hypothesis that pregnancy-related anxiety is strongly linked to postpartum depression, preterm births, low birth weight, fetal growth restriction, pregnancy complications, and negative infant outcomes.

Purpose: Comparative study to assess the levels anxiety among rural and urban primigravida mothers planned for normal vaginal delivery and caesarean section.

Methods: The levels of anxiety assessed by using 17 items self-structured anxiety assessment tool related to pregnancy and delivery of the baby. Data was collected from 60 samples, in that 30 from rural and 30 from urban. Data was analyzed by descriptive and inferential statistics

Result: Rural mother result shows that 63.33% of them have moderate level and 36.67% mothers have severe level of anxiety. Average anxiety score of mothers in selected rural areas was 31.93 with standard deviation of 4.54 and in urban area 3.33% mother have mild anxiety, 93.33% of them have moderate level and 3.33% mother have severe level of anxiety. The average anxiety score among primigravida mothers in selected rural areas was 31.93 with standard deviation of 4.54. The average anxiety score among primigravida mothers in selected urban areas was 25.63 with standard deviation of 4.03. The test statistics value of unpaired t test was 5.68 with p value 0.00. The p value less than 0.05, hence reject null hypothesis and accept alternative hypothesis. It shows, significant difference in levels of anxiety towards pregnancy and delivery of baby among primigravida mothers in selected rural and urban areas of Maharashtra.

Conclusion: This study concluded that rural primigravida mothers having more anxiety than the urban primigravida mothers related to pregnancy and delivery of the baby.

Keywords: Anxiety, Pregnancy and Delivery, Primigravida, rural and urban.

1. Introduction

Anxiety is a factor that comes associated with pain. It is a feeling of nervousness, apprehension, fear or worry, which can occur with or without cause. Mild anxiety is considered normal for women during labour and birth. However, excessive anxiety and fear increases catecholamine secretion, from its severity resulting in more pelvic pain. Anxiety is a multisystem response to a perceived threat or danger. It reflects a combination of biochemical changes in the body, the patient's personal history and memory, and the social situation.

Every woman feels that becoming a mother is the gift of God. Childbirth is universally celebrated event like a shining star in the hand at night. A woman during the pregnancy is found stressful and there is many changes occur during the pregnancy periods. They respond this stress by feel anxious. The frequency and intensity of the anxiety reaction will depend on women's perception of the stressors and her ability to cope with the experience which is influenced by the woman herself and her personality and ability to cope with the changes.

Pregnancy and delivery related anxiety negatively affects the maternal, fetal, neonatal,

and the child health during the antenatal, postnatal, and childhood period. It increases the risk of the maternal antenatal depression, preeclampsia/eclampsia, prolonged labor, and unplanned cesarean section rate. Besides, it is a risk factor for various fetal developmental problems like oligohydramnios, intrauterine growth restriction, diminished placental perfusion, adverse fetal neurodevelopment, low birth weight, and preterm birth.

A woman is highly vulnerable to anxiety and stress during her pregnancy causing negative effect in somatic and psychological forms like intrauterine growth restriction, low birth weight and preterm birth in child. Maternal anxiety not only leads to adverse effect on pregnancy outcome but also decreases maternal competence in childcare.

Study conducted at Fatrimesterawati General Hospital points out that out of 158 respondents, 52.5% of pregnant women experienced anxiety. Whereas according to Yuliana's research (2010), concerning the Description of Anxiety in Pregnant Women in Third Trimester, of 51 respondents studied, those experiencing anxiety amounted to 49%, those with mild anxiety were 47.1%, and moderate anxiety 3.9% respectively.

Satyanarayana RK, Manjunatha S (2019) carried a community based cross-sectional study among 480 women who was in the reproductive age group, using self-reporting questionnaire (SRQ-20), is a validated tool developed by World Health Organization (WHO). This study revealed that the prevalence of common mental disorders was high (33.5%) among the women of reproductive age group.

In India 52.3% of antenatal mothers experiencing the stress and anxiety during their pregnancy (Centers for Disease Control and Prevention, 2021). The descriptive study conducted at Bangalore, Southern India reported that out of 380 pregnant women, 195 (55.7%) were found to have pregnancy-related anxiety. Lower socioeconomic status, low social support and depression emerged as significant determinants of anxiety (Anita Nath2021).

With above findings and also during clinical exposure the researcher found that many antenatal mothers were afraid and worries regarding their body image, growth of baby, minor ailments of pregnancy etc., it may lead to stress and anxiety. So, the main focus of the present study was to assess the levels of anxiety among of rural and primigravida mothers.

2. METHODOLOGY

Quantitative research approach and Comparative research design was used to conduct the present study at rural and urban area of primigravida mothers at Maharashtra. 60 primigravida mothers were selected by using purposive sampling technique. In that 30 primigravida mothers from rural area and 30 from urban areas of Maharashtra meeting the inclusion criteria were selected as samples for the study. Samples were selected on the bases of mother who is first time conceived and they're in the third trimester, mother who is willing to participate in the study and mother who is able to read and write English or Marathi. The mothers who were primigravida mothers who are in first and second trimester and primigravida mother, who are in medical profession and medical students.

Description and interpretation of the tool

After considering the suggestions from the experts, tools were prepared for the study. Present study tool is divided into 2 sections. Section –I: Demographic and section –II include the Self-structured anxiety assessment tool related to pregnancy and delivery of the baby. It is a 4 points Likert scale starts from no anxiety [00], Mild anxiety [01], moderate anxiety [02] and severe anxiety [03]. This part of tool consists of items related to assessment of anxiety level of rural and urban primigravida mothers. It consists of 17 items. Interpretation of tool are as follows mild anxiety: 00-17, Moderate: 18-34 and severe: 35-51.

Translation of the tool

The tool was translated to Marathi language and retranslated to English language. Then, again, the tool was translated to Marathi language to check the clarity of the items, ambiguity of the language, and feasibility of the tool. The average time taken to complete the tool was approximately 20 minutes. The language of the tool was found simple and easy to understand.

Reliability and validity of the tool

The Self-structured anxiety assessment tool related to pregnancy and delivery of the baby tool was given to seven nursing experts from the mental health nursing department and 1 psychiatrist along with criteria checklist. The expert's suggestion were accepted and ensured the clarity and validity of the scales. In order to test the reliability of tool, it was administered on 10 subjects 05 from rural area and 05 from urban area. In this study, reliability was done by using Cronbach Alpha method. The reliability value was found to be 0.81, shows tool is reliable.

Ethical Aspects

The topic of the study was approved by the institutional ethical committee. The permission for conducting the study was obtained from the sarpanch of rural area and medical officer of urban area. The nature of the study, aims and objectives were explained to the subjects after assuring that their information would be kept confidential and used for research purpose only.

Procedure for data collection

Prior to data collection, permission was obtained from the concerned authorities. Subjects were selected according to the selection criteria of the study. 60 subjects were selected using the non-probability purposive sampling technique. The data collection was been done in the period of 17 March 2024 to 10 April 2024. The subjects were primigravida mothers of selected rural and urban areas. The brief details of the study were explained to the subjects. Confidentiality was assured to all the subjects to get the co-operation throughout the process of data collection.

Plan for data analysis

The data were analysed using descriptive and inferential statistics

3. RESULTS

Section-I: Frequency & percentage distribution of primigravida mothers in selected rural and urban areas according to demographic variables.

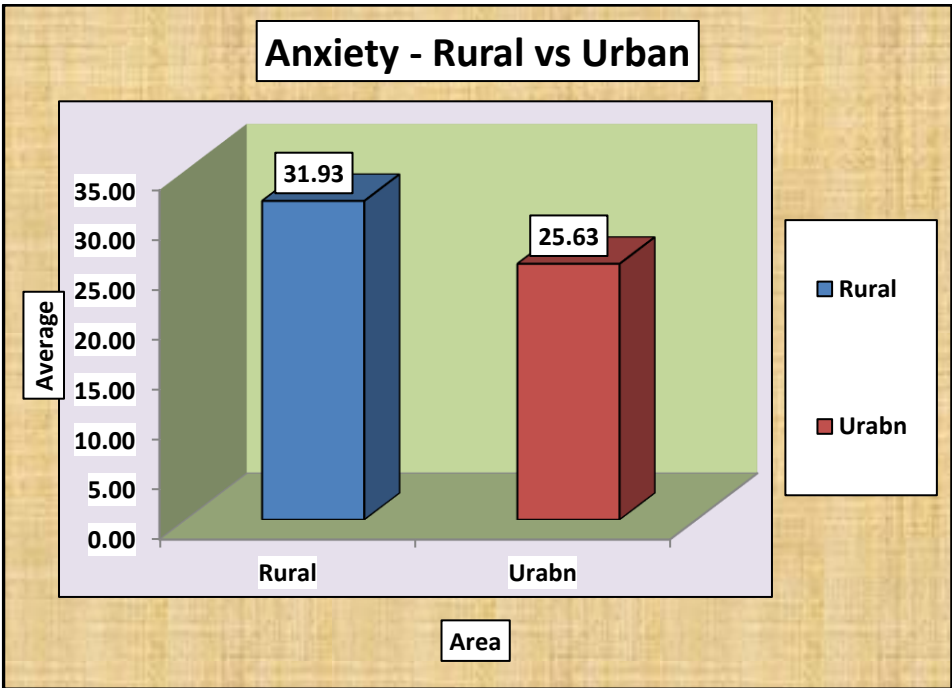
Table-1: Frequency & percentage distribution of primigravida mothers in selected rural and urban areas according to demographic variables

Sr. No.	Variable	Groups	Rural		Urban	
			Frequency	Percentage	Frequency	Percentage
1	Age in years	18-22	16	53.33	11	36.67
		23-27	14	46.67	17	56.67
		28-32	0	0.00	2	6.67
		Above 32	0	0.00	0	0.00
2	Educational status	Primary Education	1	3.33	0	0.00
		Secondary Education	17	56.67	6	20.00
		Diploma / Graduate	12	40.00	16	53.33
		Post-graduate and above	0	0.00	8	26.67
3	Occupation	House wife	23	76.67	10	33.33
		Service	4	13.33	14	46.67
		Any other	3	10.00	6	20.00
4	Family monthly income in rupees	Less than Rs.5000/-	0	0.00	0	0.00
		Rs.5001 To Rs.10,000/-	12	40.00	0	0.00
		Rs.10,001 To Rs.20,000/-	14	46.67	5	16.67
		More than Rs.20,000/-	4	13.33	25	83.33
5	Type of family	Nuclear	10	33.33	16	53.33
		Joint	16	53.33	13	43.33
		Extended	4	13.33	1	3.33
6	Antenatal registration	Government Registered Hospital	24	80.00	8	26.67
		Private Registered Hospital	6	20.00	22	73.33
7	Distance between home and registered hospital	up to 2 Km	0	0.00	18	60.00
		3-5 Km	6	20.00	10	33.33
		6-8 Km	22	73.33	2	6.67
		more than 9	2	6.67	0	0.00
8	Mode of transportation to registered hospital	Own Vehicle	15	50.00	24	80.00
		Private vehicle	10	33.33	5	16.67
		Registered hospital Ambulance	5	16.67	1	3.33
9	Do you have any history of co morbidity	Yes	7	23.33	2	6.67
		No	23	76.67	28	93.33

SECTION II

Table 2: Comparison of levels of anxiety towards pregnancy and delivery of baby among primigravida mothers.

Groups	N	Mean	S.D.	t value	P value
Rural	30	31.93	4.55	5.68	0.000
Urban	30	25.63	4.03		



Graph 1 : Comparison of levels of anxiety towards pregnancy and delivery of baby.

Table no.2 and Graph no.1 reveals the comparisons of levels of anxiety towards pregnancy & delivery of baby among primigravida mothers in rural & urban areas of Maharashtra were done by unpaired t test. The average anxiety score among primigravida mothers in selected rural areas was 31.93 with standard deviation of 4.55. The average anxiety score among primigravida mothers in selected urban areas was 25.63 with standard deviation of 4.03.

It shows, significant difference in levels of anxiety towards pregnancy and delivery of baby among primigravida mothers in selected rural and urban areas of Maharashtra.

SECTION IV

Table 3: Association of score of anxiety towards birth process with selected demographic variables – RURAL PRIMIGRAVIDA MOTHERS

Variable	Groups	Anxiety - Rural		Chi-Square	d.f.	p value	Significance
		Below Md	Above Md				
Age in years	18-22	12	4	6.46	1	0.011	Significant
	23-27	4	10				
	28-32	0	0				
	Above 32	0	0				
Educational status	Primary Education	1	0	6.779	2	0.034	Significant
	Secondary Education	12	5				
	Diploma / Graduate	3	9				
	Post-graduate and above	0	0				
Occupation	House wife	12	11	3.92	2	0.14	Not Significant
	Service	1	3				
	Any other	3	0				

Family monthly income in rupees	Less than Rs.5000	0	7	1.34	2	0.509	Not Significant
	Rs.5001 To Rs.10,000	5	5				
	Rs.10,001 To Rs.20,000	9	2				
	More than Rs.20,000	2					

Variable	Groups	Anxiety – Rural		Chi-Square	d.f.	p value	Significance
		Below Md	Above Md				
Type of family	Nuclear	4	6	1.27	2	0.529	Not Significant
	Joint	10	6				
	Extended	2	2				
Antenatal registration	Government registered Hospital	14	10	1.205	1	0.272	Not Significant
	Private registered Hospital	2	4				
Distance between home and registered hospital	up to 2 Km	0	0	9.54	2	0.008	Significant
	3-5 Km	0	6				
	6-8 Km	14	8				
	More than 9 Km	2	0				
Mode of transportation to registered hospital	Own Vehicle	9	6	0.67	2	0.715	Not Significant
	Private vehicle	5	5				
	Registered hospital Ambulance	2	3				
Do you have any history of comorbidity	Yes	2	5	2.249	1	0.134	Not Significant
	No	14	9				

The table 3 shows association of demographic variables age, educational status and distance between home and registered hospital, the p value of association test with anxiety level was less than 0.05. That means, the anxiety towards birth process among primigravida mothers of rural areas was associated with above demographic variables.

Table 4: Association of score of anxiety towards birth process with selected demographic variables – URBAN PRIMIGRAVIDA MOTHERS.

Variable	Groups	Anxiety – Urban		Chi-Square	d.f.	p value	Significance
		Below Md	Above Md				
Age in years	18-22	6	5	0.15	2	0.93	Not Significant
	23-27	8	9				
	28-32	1	1				
	Above 32	0	0				
Educational status	Primary Education	0	0	9.54	2	0.008	Significant
	Secondary Education	0	6				
	Diploma / Graduate	8	8				
	Post-graduate and above	6	1				
Occupation	House wife	6	4	1.067	2	0.59	Not Significant
	Service	7	7				
	Any other	2	4				
Family monthly income in rupees	Less than Rs.5000	0	0	0.24	1	0.62	Not Significant
	Rs.5001 To Rs.10,000	0	0				
	Rs.10,001 To Rs.20,000	3	2				
	More than Rs.20,000	12	13				
Type of family	Nuclear	9	7	1.327	2	0.52	Not Significant
	Joint	6	7				
	Extended	0	1				
Antenatal registration	Government	3	5	0.628	1	0.41	Not Significant

	registered Hospital Private registered Hospital	12	10				
Variable	Groups	Anxiety – Urban		Chi-Square	d.f.	p value	Significance
		Below Md	Above Md				
Distance between home and registered hospital	Up to 2 Km	10	8	9.15	2	0.010	Significant
	3-5 Km	5	5				
	6-8 Km	0	2				
	more than 9 Km	0	0				
Mode of transportation to registered hospital	Own Vehicle	13	12	1.2	2	0.55	Not Significant
	Private vehicle	3	2				
	Registered hospital Ambulance	0	1				
Do you have any history of comorbidity	Yes	0	2	2.14	1	0.14	Not Significant
	No	15	13				

The table 4 shows association of the demographic variables, educational status and distance between home and registered hospital, the p value of association test with anxiety level was less than 0.05. That means, the anxiety towards birth process among primigravida mothers of urban areas was associated with above demographic variables

4. DISCUSSION

Similar findings found in the study conducted by the Samah Nasser Abd El-Aziz, Suzan El-Said Mansour, Nahed Fikry Hassan at the Mansoura university in 2016 on Factor associated with fear of childbirth its effect on women's preference for elective caesarean section this study was conducted by the. The findings found in this study was that 47.8% of pregnant women preferred elective CS. Fear of vaginal birth, safer mode for the baby, no influence on postpartum sexual life and pain associated with delivery were the most reasons for CS preference. Childbirth factor was the highest factor associated with FOC with mean $\pm$ SD 12.439 $\pm$ 3.949. Fear of pain, episiotomy and lacerations were the highest sub factors representative for childbirth factor (89.3%, 83.9%, and 82.4% respectively). The highest cause of FOC was negative mood with mean $\pm$ SD 13.302 $\pm$ 3.500. 50.0% of pregnant women with high FOC preferred CS.

5. Conclusion:

Women may find themselves unable to cope with anxiety which is the additional demand of pregnancy. Hence the issue of anxiety of primigravida need to be addressed with due care and consideration by multiple stakeholders including the husbands, family members, relatives and friends.

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Conflicts of interest

The authors declare that they do not have any conflict of interest.

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