



Correlation of Pregnancy Experience and Antenatal Anxiety among Primigravida

A. Sasi Rekha, Prema Janardan, R. Sudha

Department of Obstetric and Gynaecology Nursing, V.H.S - M.A. Chidambaram College of Nursing, Chennai, Tamil Nadu, India

Abstract

Introduction: A wonderful and noble service that is bestowed on women is pregnancy. Some women enjoyed being pregnant, which found pregnancy life-changing and exciting. Most of the women may not have much problem during pregnancy, but few of them face some problems related to pregnancy and childbirth. Anxiety is believed that more than one in ten women struggle with symptoms of anxiety during pregnancy. The aim of this study was to assess the relationship between the pregnancy experience and antenatal anxiety.

Methodology: The research approach was quantitative in nature. One hundred and twenty primigravida who fulfilled the inclusion criteria were selected using non-probability convenient sampling technique. Interview method was used and the structured questionnaire, modified pregnancy experience scale, and modified perinatal anxiety screening scale were used to collect data.

Results: The study result showed that the samples had good pregnancy experience and reported mild-to-moderate level of anxiety. There was a weak positive correlation between pregnancy experience and antenatal anxiety (0.247) which was significant at $P < 0.01$ level of significance. Comparison among trimesters revealed that in the second trimester pregnancy event was less leading to reduction in anxiety which was the least among all the trimesters.

Conclusion: Pregnancy experience and anxiety will be the major determining factor for the fetal development. Ensuring positive pregnancy experience will reduce anxiety and improve good fetal growth.

Keywords: Anxiety, pregnancy experience, primigravida

INTRODUCTION

A wonderful and noble service that is bestowed on women is pregnancy. Some women enjoyed being pregnant, which found pregnancy life-changing and exciting. Most of the women may not have much problem during pregnancy, but few of them face some problem related to pregnancy and childbirth. The third trimester begins from 25 weeks of pregnancy and ends at delivery,

or 7th month through 9th month of pregnancy. Women have found the experience of pregnancy more challenging, whether for physical or emotional reasons or a combination of both.

Pregnancy being an emotional time, fears and worries are normal and expected during pregnancy. Anxiety is one of the many feelings that the women experience. It is believed that more than one in ten women struggle with symptoms of anxiety during pregnancy. People often expect mothers experience their pregnancy as a joyful time and they expect the mothers to feel “blooming” or if they try to talk about their worries or problems, people might say “Don’t worry; it’s just the hormones!” This type of response from others can make it more difficult for the mother to admit that there is a problem.^[1]

Turning to fetal benefits, literature suggests that high levels of anxiety, during pregnancy, have adverse effect on mother and baby. Anxiety in early pregnancy results in the loss of fetus

Date of Submission: 17-01-2022

Date of Revision: 06-02-2022

Date of Acceptance: 12-02-2022

Access this article online

Website: <http://innovationalpublishers.com/Journal/ijns>

ISSN No: 2454-4906

DOI: 10.31690/ijns.2022.v07i01.002

Address for Correspondence:

A. Sasi Rekha, Department of Obstetric and Gynaecology Nursing, V.H.S - M.A. Chidambaram College of Nursing, Chennai, Tamil Nadu, India. E-mail: sasi3061995med@gmail.com

This is an open-access journal, and articles are distributed under the terms of the Creative Commons Attribution Noncommercial Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms

and in second and third trimesters lead to a decrease in birth weight. Furthermore, anxiety during pregnancy is accompanied by emotional problems, hyperactivity disorder, and disturbance in cognitive development of children. Mother’s anxiety has a gestational age-dependent temporally incremental negative effect on fetal growth and development.^[2]

Screening of 146 antenatal women found that 22.6% of women were screened positive for anxiety and it was significantly associated with primigravida.^[3] There is an inter-linkage between the pregnancy experience and antenatal anxiety which influences each other. If the pregnancy events are more during pregnancy it can lead to anxiety during pregnancy and the anxiety ultimately, has an impact on the fetal development. Hence, the investigator was interested in conducting a study to assess the correlation of pregnancy experience and antenatal anxiety among primigravida because this is their first experience. This study will assess the variables over the pregnancy to find the changes that are occurring in three trimesters.

Statement of the problem

A study to assess the correlation of pregnancy experience and antenatal anxiety among primigravida at selected settings, Chennai.

Objectives of the study

The objective of this study were as follows:

1. To assess the pregnancy experience and antenatal anxiety among primigravida among trimesters
2. To correlate the pregnancy experience and antenatal anxiety among primigravida among trimesters
3. To compare the pregnancy experience and antenatal anxiety among primigravida among trimesters
4. To associate the pregnancy experience and antenatal anxiety with the selected demographic variables of primigravida.

METHODOLOGY

The research approach was quantitative-evaluative in nature. A total of 120 primigravida were selected using non-probability convenient sampling technique.^[4] Modified pregnancy experience scale and modified antenatal anxiety screening scale were used for collecting data. Mother was asked about the present experience of pregnancy and was asked to recollect the experience of her first and second trimester. Interview method was used to obtain data from the primigravida.^[5,6] The study was approved by the ethical committee constituted by the college. Permission was obtained from concerned authority of selected hospital in Chennai. Informed consent was obtained from the samples for their willingness to participate in the study.

RESULTS

Demographic variables

Table 1 depicts that majority (50%) of the primigravida were in the age group of 26–30 years, all the primigravida were literate in that most of the primigravida (82.5%) were degree holders, most

(41.6%) of the primigravida’s family income is between Rs. 15,000 and 25,000. Majority (76.7%) of the primigravida had planned their pregnancy and 23.3% had not planned their pregnancy. Most (45.8%) of the primigravida’s gestational age was between 33 and 36 weeks, 22.5% of the primigravida was between 29 and 32 weeks of gestation, 17.5% of the primigravida’s gestational age was more than 36 weeks, and 14.2% of the primigravida’s gestational age was between 25 and 28 weeks.

Distribution of pregnancy experience

Table 2 shows that in the first trimester, majority (55%) of the primigravida had good experience. In the second trimester, majority (61.7%) of the primigravida had good experience. In the third trimester, majority (54.2%) of the primigravida had good experience. The overall score showed that majority (81.7%) of the primigravida had good experience, 17.5% of primigravida had fair experience, and only 0.8% of the primigravida had poor experience.

Distribution of antenatal anxiety

Table 3 shows that in the first trimester, majority (65%) of the primigravida had moderate anxiety. In the second trimester,

Table 1: Frequency and percentage distribution of primigravida based on demographic variables (n=120)

Demographic variables	Frequency (F)	Percentage (P)
Age in years		
21–25 years	50	41.7
26–30 years	60	50.0
31–35 years	10	8.3
Educational status		
No formal education	0	00.0
Literate	120	100.0
If literate,		
Primary	1	00.8
Secondary	5	04.2
Higher secondary	5	04.2
Graduate	99	82.5
Postgraduate	10	08.3
Family monthly income		
<Rs. 15,000	23	19.2
Rs. 15,000–Rs. 25,000	50	41.6
More than Rs. 25,000	47	39.2
Was this pregnancy planned		
Yes	92	76.7
No	28	23.3
Weeks of gestation		
25–28 weeks	17	14.2
29–32 weeks	27	22.5
33–36 weeks	55	45.8
>36 weeks	21	17.5

Table 2: Frequency and percentage distribution of primigravida based on pregnancy experience, n=120

Pregnancy experience	Poor experience		Fair experience		Good experience	
	F	%	F	%	F	%
First trimester	2	1.7	52	43.3	66	55.0
Second trimester	1	0.8	45	37.5	74	61.7
Third trimester	4	3.3	51	42.5	65	54.2
Overall score	1	0.8	21	17.5	98	81.7

majority (52.5%) of the primigravida had moderate anxiety. In the third trimester, majority (50.8%) of the primigravida had moderate anxiety. The overall score showed that majority (66.7%) of the primigravida had moderate anxiety and 33.3% of primigravida had mild anxiety.

Correlation of pregnancy experience and antenatal anxiety

Table 4 shows that there was a weak positive correlation between pregnancy experience and antenatal anxiety (r = 0.259) which were significant at P < 0.01 level of significance. There was a weak positive correlation between overall pregnancy experience and antenatal anxiety (r = 0.247) which were significant at P < 0.01 level of significance.

Comparison of the pregnancy experience and antenatal anxiety

Table 5 shows that the pregnancy experience mean score for first trimester was 5.33 with a standard deviation of 1.225, second trimester was 4.68 with a standard deviation of 0.927, and third trimester was 5.50 with the standard deviation of 1.283. The calculated paired t-test value for the first and second trimester was 5.245 and second and third trimester was -6.914 which was significant at P < 0.001 level of significance and for third and first trimester was 1.168 which was not significant.

The antenatal anxiety mean score for the first trimester was 8.38 with a standard deviation of 2.531, second trimester was 6.27 with a standard deviation of 2.431, and third trimester was 8.11 with the standard deviation of 3.235. The calculated paired t-test value for the first and second trimester was 9.934, second and third trimester was -7.272 which was significant at P < 0.001 level of significance and for third and first trimester was 0.902 which was significant at P < 0.01 level of significance.

Association of demographic variable with pregnancy experience

Table 6 shows that there was no statistically significant association between pregnancy experience with age, education, family monthly income, planned pregnancy, and weeks of

gestation.

Association of demographic variable with antenatal anxiety

Table 7 shows that there was no statistically significant association between pregnancy experience with age, education, family monthly income, and weeks of gestation. There was statistically significant association between antenatal anxiety with planned pregnancy at P < 0.05 level of significance

DISCUSSION

**The results of the study were discussed as per objectives
The first objective was to assess the pregnancy experience and antenatal anxiety among primigravida among trimesters**

Majority of the primigravida had good experience. The percentage of primigravida with good experience was higher in second trimester when compared to first and third trimester. Primigravida had mild-to-moderate level of anxiety was in conformity with the descriptive cross-sectional study to assess the level of prenatal anxiety among pregnant women conducted by Binita et al., in 2019.^[7] The study findings revealed that majority (39.5%) of the respondents were primigravida and 42.1% had reported mild-to-moderate level of anxiety. The study concluded that the prenatal anxiety has relation with the gravid status of pregnant women.

The second objective was to correlate the pregnancy experience and antenatal anxiety among primigravida among trimesters

There was a weak positive correlation between pregnancy experience and antenatal anxiety (r = 0.259) in the first trimester and overall pregnancy experience and antenatal anxiety (r = 0.247) which were significant at P < 0.01 level

Table 3: Frequency and percentage distribution of the primigravida based on antenatal anxiety, n=120

Antenatal anxiety	Mild anxiety		Moderate anxiety		Severe anxiety	
	F	%	F	%	F	%
First trimester	40	33.3	78	65.0	2	1.7
Second trimester	55	45.8	63	52.5	2	1.7
Third trimester	58	48.3	61	50.8	1	0.8
Overall score	40	33.3	80	66.7	00	0.0

Table 4: Correlation of pregnancy experience and antenatal anxiety among the trimesters among primigravida. n=120

Variables	Correlation coefficient value			
	I trimester	II trimester	III trimester	Overall
Pregnancy experience and antenatal anxiety	r=0.259 P=0.004 **S	r=0.165 P=0.0717 NS	r=0.137 P=0.135 NS	r=0.247 P=0.007 **S

*P<0.05, **P<0.01, ***P<0.001, S: Significant, NS: Not significant

Table 5: Comparison of the pregnancy experience and antenatal anxiety among the trimesters among primigravida. n=120

Variables	Mean	Standard deviation	Mean difference	Paired "t" test
Pregnancy experience				
First trimester	5.33	1.225	2.11	t=5.245
Second trimester	4.68	0.927		p=<0.00001 ***S
Second trimester	4.68	0.927	1.84	t=-6.914
Third trimester	5.50	1.283		p=<0.00001 ***S
First trimester	5.33	1.225	0.27	t=1.168
Third trimester	5.50	1.283		p=0.245 NS
Antenatal anxiety				
First trimester	8.38	2.531	2.11	t=9.934
Second trimester	6.27	2.431		p=<0.00001 ***S
Second trimester	6.27	2.431	1.84	t=-7.272
Third trimester	8.11	3.235		p=<0.00001 ***S
First trimester	8.38	2.531	0.27	t=0.902
Third trimester	8.11	3.235		p=<0.01 **S

*P<0.05, **P<0.01, ***P<0.001, S: Significant, NS: Not significant

Table 6: Associate the pregnancy experience with selected demographic variables. n=120

Demographic variables	Pregnancy experience						Chi-square test
	Poor experience		Fair experience		Good experience		
	F	%	F	%	F	%	
Age in years							
21–25 years	1	0.8	6	5.0	43	35.8	$\chi^2=4.136$ d.f=4 P=0.38 NS
26–30 years	0	0.0	14	11.7	46	38.4	
31–35 years	0	0.0	1	0.8	9	7.5	
Educational status							
No formal education	0	0.0	0	0.0	0	0.0	$\chi^2=6.064$ d.f=8 P=0.64 NS
Literate	1	0.8	21	17.5	98	81.7	
If literate,							
Primary	0	0.0	1	0.8	0	0.0	NS
Secondary	0	0.0	1	0.8	4	3.33	
Higher secondary	0	0.0	0	0.0	5	4.16	
Graduate	1	0.8	17	14.1	81	67.5	$\chi^2=1.914$ d.f=4 P=0.75 NS
Postgraduate	0	0.0	2	1.66	8	6.67	
Family monthly income							
<Rs. 15,000	0	0.0	4	3.33	19	15.83	$\chi^2=1.914$ d.f=4 P=0.75 NS
Rs. 15,000–Rs. 25,000	1	0.8	10	8.33	39	2.5	
More than Rs. 25,000	0	0.0	7	5.83	40	33.3	
Was this pregnancy planned							
Yes	1	0.8	17	14.1	74	61.7	$\chi^2=0.593$ d.f=2 P=0.743 NS
No	0	0.0	4	3.33	24	20.0	
Weeks of gestation							
25–28 weeks	0	0.0	2	1.6	15	12.5	$\chi^2=1.671$ d.f=6 P=0.947 NS
29–32 weeks	0	0.0	5	4.2	22	18.3	
33–36 weeks	1	0.8	10	8.3	44	36.7	
>36 weeks	0	0.0	4	3.3	17	14.2	NS

of significance. There was no correlation between pregnancy experience and antenatal anxiety in the second and third trimesters. Mother’s experience during pregnancy decides the anxiety level of the mother. By providing positive pregnancy experience is a shared responsibility of the family and the health care personnel. Providing adequate information about pregnancy and measures to cope with the changes will help the mother to achieve positive experience. In 2016, the WHO^[8] has issued a new series of recommendation to improve the quality of antenatal care to reduce the risk of still births and pregnancy complication and give women a positive pregnancy experience by nutritional intervention, maternal fetal assessment preventive measures, etc. Hence, regular antenatal care and education can still improve the pregnancy experience, which reduce the anxiety.

The third objective was to compare the pregnancy experience and antenatal anxiety among primigravida among trimesters

The pregnancy experience mean score for first trimester was 5.33 with a standard deviation of 1.225, second trimester was 4.68 with a standard deviation of 0.927, and third trimester was 5.50 with the standard deviation of 1.283. The calculated paired “t” test value for the first and second trimester was 5.245 and second and third trimester was -6.914 which was

significant at $P < 0.001$ level of significance and for third and first trimester was 1.168 which was not significant. The antenatal anxiety mean score for the first trimester was 8.38 with a standard deviation of 2.531, second trimester was 6.27 with a standard deviation of 2.431, and third trimester was 8.11 with the standard deviation of 3.235. The calculated paired t-test value for the first and second trimester was 9.934, second and third trimester was -7.272 which was significant at $P < 0.001$ level of significance, and for third and first trimester was 0.902 which was significant at $P < 0.01$ level of significance.

The finding of the study supported that the mean anxiety score is higher in third trimester compared to first and second trimester. In 2017, Krishna *et al.*^[9] conducted a cross-sectional study to investigate the antenatal anxiety across all three trimesters of pregnancy. The results showed that the mean anxiety score for the first, second, and third trimester was 10.74, 11.69, and 14.20, respectively. The study concluded that, significantly higher anxiety score during third trimester when compared to first trimester.

The fourth objective was to associate the pregnancy experience and antenatal anxiety with the demographic variables among primigravida

There was no statistically significant association between pregnancy experience with demographic variables. There was statistically significant association between antenatal anxiety

Table 7: Associate the antenatal anxiety with selected demographic variables, n=120

Demographic variables	Antenatal anxiety						Chi-square test
	Mild anxiety		Moderate anxiety		Severe anxiety		
	F	%	F	%	F	%	
Age in years							$\chi^2=2.1$
21–25 years	20	16.7	30	25	0	0.0	d.f=2
26–30 years	18	15	42	35	0	0.0	P=0.350
31–35 years	2	1.7	8	6.6	0	0.0	NS
Educational status							$\chi^2=2.132$
No formal education	0	0.0	0	0.0	0	0.0	d.f=4
Literate	40	33.3	80	66.7	0	0.0	P=0.712
If literate,							NS
Primary	0	0.0	1	0.8	0	0.0	
Secondary	2	1.7	3	2.5	0	0.0	
Higher secondary	2	1.7	3	2.5	0	0.0	
Graduate	31	25.8	68	56.7	0	0.0	
Postgraduate	5	4.17	5	4.2	0	0.0	
Family monthly income							$\chi^2=3.395$
<Rs. 15,000	11	9.17	12	10.0	0	0.0	d.f=2
Rs. 15,000–Rs. 25,000	13	10.9	37	30.8	0	0.0	P=0.183
More than Rs. 25,000	16	13.3	31	25.8	0	0.0	NS
Was this pregnancy planned							$\chi^2=4.565$
Yes	26	21.7	66	55.0	0	0.0	d.f=1
No	14	11.7	14	11.7	0	0.0	P=0.33
							NS
Weeks of gestation							$\chi^2=2.610$
25–28 weeks	8	6.67	9	7.50	0	0.0	d.f=3
29–32 weeks	10	8.33	17	14.2	0	0.0	
33–36 weeks	17	14.2	38	31.7	0	0.0	P=0.456
>36 weeks	5	4.16	16	13.3	0	0.0	NS

with area of residence at $P < 0.5\%$ level of significance. There was no statistically significant association between antenatal anxiety with other demographic variables.

CONCLUSION

Poor pregnancy experience and anxiety can affect a person's feelings, thoughts, behavior, and physical wellbeing. Ensuring positive pregnancy experience will reduce anxiety. The study concluded that there was good pregnancy experience and the reported anxiety levels were mild-to-moderate in nature.

ACKNOWLEDGMENT

Authors are very much thankful to who helped us in all situations directly and indirectly.

FUNDING

This research was not funded for any outside agency/institution.

CONFLICTS OF INTEREST

All authors declare they have no conflicts of interest.

DECLARATION

Prof. Dr. R. Sudha, R. N, R.M, M.Sc. (N)., Ph. D, Principal, Prof. Dr. Prema Janardan, R. N, R.M, M.Sc. (N)., Ph. D, Vice Principal, and Mrs. A. Sasi Rekha, R.N, R.M, M.Sc. (N), Tutor,

VHS – M.A. Chidambaram College of Nursing are the original authors of this articles. The article is original and has not been published and has not been sent for publication elsewhere.

REFERENCES

- NHS Fife Psychology Department. Anxiety During Pregnancy. United Kingdom: NHS Fife Psychology Department; 2015.
- Sarkar K. Screening antenatal anxiety: Predicting its effect on fetal growth. *J Fam Med Prim Care* 2017;6:131-5.
- Thomas C, Surekha A, Suguna A, Puthur KJ, Kiran P, Sulekha T. Screening for anxiety among antenatal women attending a Taluk hospital in rural India. *J Obstetr Gynaecol Res* 2015;6:313-7.
- Polit FD, Hungler BP. *Essentials of Nursing Research*. Philadelphia, PA: Lippincott Williams & Wilkins Company; 2005.
- Sharma K. *Nursing Research and Statistics*. 3rd ed. New Delhi: Elsevier Publishers; 2011.
- Sudha R. *Research and Biostatistics for Nurses*. 1st ed. New Delhi: Jaypee Brothers Medical Publishers Ltd.; 2017.
- Binita S, Mali NS, Singh RD, Yogi I, Maharjan D, Maharjan M. Prenatal anxiety among pregnant women visiting in antenatal care OPD. *Int J Health Sci Res* 2019;9:173-81.
- World Health Organization. *WHO Recommendation on Antenatal Care for Positive Pregnancy Experience*. Geneva: World Health Organization; 2016.
- Krishna P, Pattojoshi A, Bakhla AK. A study of antenatal anxiety: Comparison across trimesters. *Int J Reprod Contracep Obstetr Gynecol* 2017;6:32-4.

How to cite this article: Rekha AS, Janardan P, Sudha R. Correlation of Pregnancy Experience and Antenatal Anxiety among Primigravida. *Indian J of Nurs Sci*. 2022;7(1):4-8.