

A Study to assess the Anxiety related to the Onset of Labor and Delivery among Primigravida Mothers admitted for Delivery at the Selected Hospital, Jaipur, Rajasthan

Babu Lal Meena

Department of Obstetrics and Gynecology, Government College of Nursing, Jaipur, Rajasthan, India

Abstract

Aim: A descriptive study was conducted to assess the anxiety level of Primigravida mothers at Mahila Chikitsalya, Jaipur. The objectives of the study were to assess the anxiety related to the onset of labor and delivery among primigravida mothers and to determine the association between the levels of anxiety with selected variables.

Methods: The descriptive survey approach and descriptive exploratory survey design were used. The reliability was established by conducting a pilot study $r = 0.98$. By purposive sampling technique, 50 primigravida mothers were selected in the clean labor room. A structured questionnaire was prepared for data collection and it consists of 65 items on anxiety and 14 demographical items. Data were collected and analyzed.

Result: Chi-square value shows that some demographical variables had a significant association and some demographical variables had no significant association with the anxiety scores of the respondent. Majority 46% of respondent are in the age group of 18–20 years, and 26% of the respondent had studied up to PUC which is the highest. 100% among them of respondent were married, and income was between Rs. 1000 and 2000 (58%), 48% of respondent are Hindus and emerge from the nuclear family background (78%), 50% of respondent live in rural area and seek support through mass media (92%), and 64.3% of mothers had anxiety related to physical aspects.

Interpretation and Conclusion: Overall findings showed that higher the age of the mothers, higher was the anxiety level. Thus, providing psychological and physical comfort will minimize the anxiety level and will promote safe labor and delivery.

Keywords: Anxiety level, physiological process, pregnant women, primigravida mothers

INTRODUCTION

The health of the nation is often judged by the health of mothers and infants. Thus, mothers play an indispensable role in the health of any nation. Anxiety is most common in life; it is more among primigravida mothers during labor and delivery.^[1] Identification of emotional changes helps nurses to plan to provide holistic care which helps the mothers to have smooth hospitalization and minimize anxiety. Providing psychological support is one of the most important needs during her labor and delivery on the labor table.^[2,3]

Tideman (1997) described “hospitalization as a high anxiety situation.” The parents are anxious and preoccupied with many concerns arising from their knowledge and perceptions of hospital and hospital personnel. Zeigler and Prior (1994) said that cognitive and psychological development, as well as emotional support, are the cornerstone of how stressful situations as perceived internally and responded externally.^[4]

Bulckhardt (1897) stated that a child’s response to stress can be varied and included both physical and psychological manifestations. Like the mother, the partner is also exposed to situations that can evoke stress and anxiety. The hospital environment can be a potential source of stress.^[1,4]

Complicated instruments with flashing lights and alarm systems can be extremely anxiety provoking. A smiling, greeting, and cooperation of nurse and other members of the health team contribute to minimizing the trauma of hospitalization.^[5]

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Address for Correspondence: Babu Lal Meena, Department of Obstetrics and Gynecology, Government College of Nursing, Jaipur, Rajasthan, India.
E-mail: babubhail83@gmail.com

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The need of the study

Obstetrics and preventive medicine ensure that pregnancy and postpartum period will have good and fruitful health. The social and environmental factors which influence human reproduction are a legion, namely, age at marriage, childbearing, child spacing, family size fertility patterns and level of education, economic status, customs and beliefs, and role of women in society. Mental preparation is an important aspect of pregnant women. Sufficient time and opportunity must be given to the expectant mothers to have a free and frank talk on all aspects of pregnancy and delivery. Anxiety over the delivery was related to lack of self-confidence, staff, and complication of outcome.^[6-8]

In spite of growing research interest in anxiety, little is known about the role of health personnel in reducing anxiety. The nurse's function has a central figure in the care of mothers during labor. Hence, through understanding, intelligent action is needed for the nurses. She has to provide adequate information and opportunities for primigravida mothers to cope with anxiety.^[9]

Sayil *et al.* (2006) conducted a study on anxiety, emotional disturbance during delivery, and environmental disturbance. A descriptive study was conducted to assess the anxiety level of Primigravida mothers at Mahila Chikitsalya, Jaipur. The objectives of the study were to assess the anxiety related to the onset of labor and delivery among primigravida mothers and to determine the association between the levels of anxiety with selected variables. A total of 200 pregnant women were participated in this study. Women were included who were married, pregnant with a first child, working full time before conception, and over the age of 20 years. The study reveals that, in the prenatal period, lower maternal income, self-esteem, and self-efficacy were significantly associated with prenatal maternal anxiety. Postnatal mothers with unplanned pregnancy were perceived high anxiety, lower satisfaction, poor parental support and negative attitude toward employment. The findings indicated that prenatal high anxiety might be an adverse risk factor for the postnatal well-being of mothers. It was concluded that both common and culture-specific maternity.^[9,10]

Escott *et al.* (2004) conducted a study on the range of coping mechanism women use to manage pain and anxiety before and during the first time of labor. The study reveals that nurse can help nulliparous women to identify in pregnancy, a range of coping mechanism, that they used in labor and delivery to manage panic situation.^[11]

The nurse can use their previous knowledge and experience to assistance for planning to enhance positive energy and own coping plan for a better outcome of delivery.^[12]

Sjogren (2011) conducted a study on reasons for anxiety about childbirth in 100 pregnant women. In the description, primipara mothers ($n = 36$) were assessed for anxiety and fear. Labor process was related to lack of faith in staff (73%), fear of own incapability (65%), fear of demise infant or both (55%), and intolerable pain or loss of control (43%). The study

reveals anxiety of primipara mothers over childbirth related to fundamental human feelings, lack of trust, fear of female incompetence, or fear of the negative outcome. Fear of labor pain is must but not predominant. The results were discussed with regard to anxiety, cognitive, and psychological points of view.^[13]

Bucher *et al.* (2013) conducted a study on first-time mothers' perceptions of prenatal care services. This study reveals that primiparas delivering low birth weight (LBW) infants reported less satisfaction with information on birth control and less information on infant feeding. In addition, mothers of LBW infants reported more often than mothers of normal birth weight infants that transportation and finances were barriers to parental care. Childbirth preparation class was the only predictor variable for birth weight in this study.^[14]

Objectives

The objectives of this study were as follows:

1. To assess the anxiety of primigravida mothers at the onset of labor and delivery.
2. To find the level of anxiety of primigravida mothers at the onset of labor and delivery.
3. To find the association between level of anxiety and selected demographic variables of the primigravida mothers.

Hypothesis H^[1]

There will be a significant association between anxiety level and selected demographic variables.

METHODS

Research approach

This was a descriptive survey approach.

Research design

This was a descriptive study.

Population

All the primigravida mothers were admitted to the clean labor room, at the onset of labor and delivery.

Sampling techniques

The purposive sampling technique was used.

Sample size

The present study was carried out on 50 selected primigravida mothers at the onset of labor and delivery who were admitted in the clean labor room.

Setting

The present study was conducted in a clean labor room at Mahila Chikitsalya, Jaipur.

Tool

The tool used in the present study was the four-point scale for structured interviewed schedule comprising of two parts.

Part-I: It consists of 14 items of selected variables related to background information of the primigravida mothers such

as name, age group, marital status, education, occupation, religion, residential area, family income, type of family, gestational age, consanguineous marriage, social support, and sources of information.

Part-II: It consists of four sections with 65 items, covering different areas of the anxiety of primigravida mothers.

- Section A: Social aspects consist of 7 items.
- Section B: Psychological aspects consist of 34 items.
- Section C: Physical aspects consist of 20 items.
- Section D: Family aspects consist of 4 items.

The total score was 195. Each item had a maximum score of three and a minimum score of zero. This consists of the scoring methods. The structure interview schedule was initially prepared in English. The respondents described the scores of response given in the tool, the 4-point scale, and the scale is as follows:

- 3 applied to us very much as most of the time.
- 2 applied to us to a considerable degree or as a good part of the time.
- 1 applied to us to some degree or sometime.
- 0 did not apply to me at all.

Reliability of the tool

To establish the reliability of the tool, it was administered to five primigravida mothers in the clean labor room at Mahila Chikitsalya, Jaipur. The samples chosen were similar in characteristics to the population under the study. The split-half method was used to test the reliability of the tool. The item scores were analyzed by Spearman–Brown prophecy. The reliability coefficient of anxiety was found to be 0.98.

Data collection procedure

Prior permission was obtained from the Medical Superintendent of Mahila Hospital for conducting the study. The respondents were assured of anonymity and confidentiality of the information that was provided to the investigator. Approximately 2–3 primigravida mothers were interviewed daily. About 30 min were spent with each participant.

RESULTS

Section 1

Majority (46%) of the mother were in the age group of 18–20 years. Further 38% of mothers were in the age group of 21–22 years and remaining 16% of the mothers were between 23 and 27. Educational status of the respondents reveals that 26% of the respondents had education up to PUC, which is the highest, 24% had completed secondary education, and 20% had completed high school level. Further 18% had completed primary schooling, and only 12% were graduates. Regarding the employment status of the respondents, the majority (64%) were housewives, followed by 22% private employees, and the remaining 14% were coolies.

With regard to religion-wise distribution of the respondents, the majority (48%) of the respondents was Hindus, followed by 44% Muslim and only 8% of mothers were Christians.

Regarding the type of family, 78% were from the nuclear family, and only 22% were from joint family. Findings in relation to the residential area reveal that the highest percentage 50% of the respondents was from the rural area, followed by 32% was from semi-urban area, and 18% lived in the urban area.

When considering the monthly income of respondents, 58% earned between Rs. 1000 and 2000/month, 34% earned below Rs. 1000/month, and 8% earned between Rs. 2000 and 3000/month. With regard to exposure to sources of information, a higher percentage (92%) of the respondents gained information on health, through mass media, followed by 88% from elders and relatives, 42% from their friends, 10% from health professionals, and only 6% through newspapers. Among 50 respondents, 100% of them got social support from health.

Section 2: Aspect-wise anxiety scores of the respondents of primigravidae

Aspect wise means anxiety score of respondents at the onset of labor and delivery. It was found that the overall anxiety score was 46.4% with SD as 4.7%. The result on aspect wise reveals that the mean anxiety was higher than physical aspect 64.3%, compared to family aspect 45.8%, social aspect 39.2%, and psychological aspect 37.4%.

Section 3: Association between the level of anxiety with selected variables

Association between age and level of anxiety at the onset of labor and delivery

It is evident from the result that 86.9% of respondents are in the age group of 18–20 years found with low anxiety level as compared to 63.2% who belong to 21–22 years of age group. However, the anxiety was found to be less among 37.5% of respondent noticed in the age group of 23–27 years. The data were subjected for Chi-square test which reveals a significant association between age and anxiety level of respondent onset of labor and delivery ($X = 7.60^*$, $P < 0.05$).

Association between education and level of anxiety at onset of labor and delivery

It indicates from the results that 88.9% of respondents with primary schooling had low anxiety level as compared to 83.3% who had completed secondary education, further 70.0% completed high school and 61.5% with education up to PUC. Further, anxiety was found less among 3.3% of the respondents who were graduates. The statistical inference using Chi-square test shows the non-significant association between education and level of anxiety of respondent onset of labor and delivery ($X = 6.83$, $P < 0.05$).

Association between income and level of anxiety at onset of labor and delivery

It is evident from the results that slightly higher (82.2%) respondent earned below Rs. 1000/month was noticed with low anxiety level as compared to 25% of the respondents earned Rs. 2000–3000/month with less anxiety level on the onset of labor and delivery.

Association between type of marriage and level of anxiety at onset of labor and delivery

The statistical findings show that slighter higher (71.4%) respondent had the consanguineous type of marriage with low anxiety level as compared to 69.8% of the respondent who belongs to non-consanguineous marriage with less anxiety level at the onset of labor and delivery.

Section 4: Statement-wise anxiety scores of respondents or primigravida mothers at the onset of labor and delivery

Statement-wise mean anxiety scores of respondents on social and family

Aspect-wise means anxiety score of respondent among social aspect had found to be 96.7% respondent felt secured with SD 10.1% as compared to 14% respondent felt that she is being ignored by the medical and nursing staff with SD 16.6%.

Statement-wise mean anxiety scores of respondents on social and family

It is evident from the results of Tables 1-3 that cent percent of the response noticed in seven statements on the physical health aspect. However, the response varied from 10.7% in the other statements under the study.

Statement-wise mean anxiety scores of respondents on social and family

It is evident from the findings that only three statements with cent percent response. Further, the response varied from 14.7% to 98.7% in different statements of psychological aspects under study.

DISCUSSION

Fagerskiold A (2003) conducted a study on expectations from the child health nurse in Sweden. The data consisted of interviews with child health nurses and 20 interviews with first-time mothers. This study reveals that mothers expected participation in parent groups to a higher degree than the nurses thought they did. Child health nurses who fulfills the mothers' expectations appear to require a good relationship with the mother in order to found out what she desires, with the allocation of sufficient time for regular meetings, will facilitate. Moreover, the nurse requires knowledge about children's requirements and the transition to motherhood as well as the father's important role.^[16]

Waisbren (1999) explained that parents with a very early marriage and conception are more prone to anxiety, stress, express more negative feeling about their delivery, and developed interpersonal problems with family members.^[17]

This study was conducted to describe the anxiety experienced by the primigravida mothers of hospitalized and to find the importance to reduce the anxiety among the mothers and also the importance of nurses' role in facilitating information thereby which helps in reduction of the anxiety of the primigravida mothers.^[18]

Zeigler and Prior (1994) said that cognitive and psychological development, as well as emotional support, are the cornerstone of how stressful situations as perceived internally and responded to externally.^[6]

Aspect I consists of questions related to social aspects, those changes which cause anxiety. It is noticed that almost all the mothers in these aspects have moderate-to-low level of anxiety. About 39.2% mean score of the primigravida mothers have moderate level of anxiety, and the remaining mothers have a high level of anxiety.

Aspects II consists of questions related to psychological and emotional aspects, those changes which cause anxiety. It is noticed that almost all the mothers in this aspects have moderate-to-low level of anxiety. About 37.4% mean score of primigravida mothers has a moderate level of anxiety, and the remaining mothers have a high level of anxiety.

Aspect III consists of questions related to physical health and the growth and development of the body structure of the mother, those changes which cause anxiety. It is noticed that almost all mothers in this aspects have low-to-moderate level of anxiety. About 64.3% mean score of the mothers has a moderate level of anxiety. The findings of the present study were discussed under the following headings.

1. Description of demographic variables.
2. Findings related to aspect-wise anxiety scores of respondents of primigravida mothers at the onset of labor and delivery.
3. Finding related to the association between the level of anxiety with selected variables.
4. Finding related to association between level of anxiety with selected variables:-
 - The findings of the study reveal that there is no significant association found between education, employment status, religion, type of family, and type of marriage with the level of anxiety to the onset of labor and delivery.

Reece (1995) conducted a study on stress and maternal adaptation in 1st-time mothers >35 years old. This prospective longitudinal study assessed relationships among variables

Table 1: Aspect wise mean score of respondents on anxiety at onset of labour and delivery

No.	Aspect	Statement	Maximum score	Range score	Mean score	Knowledge score % (n=50)
						Mean ± SD
I	Social	7	21	5–12	8.2	39.2±9.2
II	Psychological	34	102	28–54	37.4	37.4±6.1
III	Physical	20	60	33–48	64.3	64.3±5.8
IV	Family	4	12	3–9	45.8	45.8±13.1
V	Combined	65	195	73–117	46.4	46.4±4.7

Table 2: Association between income and level of anxiety at onset of labour and delivery

Family income per month	Respondent anxiety levels (n=50)			X ² value
	Low	Moderate	Total	
	n (%)	n (%)	n (%)	
<1000 Rs.	14 (82.4)	3 (17.6)	17 (100)	6.11
1000–2000 Rs.	20 (69.0)	9 (31.0)	29 (100)	
2000–3000 Rs.	1 (25.0)	3 (75.0)	4 (100)	
Combined	35 (70.0)	15 (30.0)	50 (100)	

Table 3: Association between type of marriage and level of anxiety at onset of labour and delivery

Type of marriage	Respondent anxiety levels (n=50)			X ² value
	Low	Moderate	Total	
	n (%)	n (%)	n (%)	
Consanguineous	5 (71.4)	2 (28.6)	7 (100)	0.01
Non-consanguineous	30 (69.8)	13 (30.2)	43 (100)	
Combined	35 (70.0)	15 (30.0)	50 (100)	

of the early transition to parenthood and maternal stress and adaptation 1 year after delivery in primiparas older than 35 years. The study reveals that early perceptions of parenting with older 1st-time mothers were supported.^[5]

- It is evident from the data subjected that there is significant association found to be at 5% level between age, income, residential, and attainment of menarche with the level of anxiety to the onset of labor and delivery.
- The hypothesis is accepted for the variables, namely education, religion, and type of family. A further hypothesis is rejected for the variables, namely age, family income, and attainment of menarche.

Findings related to statement-wise anxiety score of respondents: It is analyzed aspect-wise mean anxiety score of respondent among social aspect had found to be 96.7% of respondents felt secured with SD 10.1% as compared to 14% of respondent felt that she is being ignored by the medical and nursing staffs with SD 16.6%. With regard to family aspect, the statistical results that the mean anxiety found to be 97.3% of respondent wants someone to look after and be with her with SD 13.2% as compared to 25.3% of respondent were worried what would happen to her husband in case she dies with 39.0%.

CONCLUSION

Overall findings showed that the higher the age of the mothers, higher was the anxiety level. The anxiety among

primigravida mothers obtained was approximately 80% low-to-moderate level of anxiety on basis of different variables of social aspects. Thus, providing psychological and physical comfort will minimize the anxiety level and will promote safe labor.

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