

Evaluation of Anxiety regarding Labour Process among Primiparturient Mothers

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Abstract

Background: Pregnancy and childbirth have a way of changing the coping ability. Hormonal changes during pregnancy appear to make one more prone to anxiety and panic attacks, simply because they allow certain parts of the brain to become activated during periods of intense stress.

Aim: The present study aims to evaluate the anxiety regarding labour process among primiparturient mothers.

Methods: The study was conducted at Government General hospital, Kancheepuram district. Cross sectional study design was adopted for this study. 60 primiparturient mothers were selected by simple random sampling technique. The tool consists of two sections. Section A consisted of Structured questionnaire to elicit demographic variables of primiparturient mothers and Section B pertained to assess the anxiety of Primiparturient mothers by Standardized Zung self rated anxiety scale.

Results: The study results showed that, regarding the level of anxiety regarding the labour process of primiparturient mothers, 9 (15%) of them were normal, 18 (30%) had mild to moderate level of anxiety, 26 (43.3%) had marked to severe level of anxiety and 7 (11.7%) had extreme level of anxiety.

Conclusion: The study concludes that, among 60 primiparturient mothers, majority 26 (43.3%) had marked to severe level of anxiety regarding labour process. So child birth preparation classes should be taken for the primiparturient mothers to alleviate their anxiety during labour.

Keywords: Anxiety; Labour Process; Primi Parturient Mothers.

Introduction

Labour, the culmination of pregnancy is an event with great psychological, social and emotional meaning for the mother and her family. The women may experience stress and physical pain and danger may lurk around the corner. For most women, labour begins with the first uterine contraction, continues with hours of hard work during cervical dilation till

birth. Normal labour requires that the powers be sufficient to expel the fetus that the passage must be in adequate size to allow descent and expulsion of the fetus and that the passenger should allow negotiation of the passage during labour [1].

Fear, Stress and Anxiety all have marked effects on labor progression and pain perception. When people are frightened or stressed the body will activate the flight or flight response. This causes an increased

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production of catecholamine and adrenaline. The heart begins to beat faster, breathing becomes more rapid, muscles tense, blood pressure rises and blood is diverted from the periphery to vital organs (unfortunately for baby and childbirth, this does not include the uterus). During labor there can be some signs that show that a mother is not coping well with childbirth, and has begun to panic and become stressed or anxious about the event. This could be restlessness, panic, high pitched vocalizations, increased pain perception due to a decrease in endorphin production, slowing of contractions due to drops in Oxytocin production, and fetal distress. When a mother has measurable levels of stress and anxiety during her pregnancy, especially in the last months leading up to childbirth, there is an increased chance that it will intensify during childbirth and an increased chance that the mother will need medical interventions such as Pitocin to speed contraction or epidural to help with pain [2].

Girija Kalayil Madhavanprabhakaran et al., 2015 conducted a study to determine the prevalence of pregnancy-specific anxiety and its associated factors among pregnant women during the three trimesters of pregnancy. 500 low risk pregnant women who attended the major maternity government hospital were selected as convenient sample. An exploratory research design with a prospective cohort approach was adopted for the study. State Trait Anxiety Inventory (STAI) and Pregnancy-Specific Anxiety Inventory (PSAI) were used to collect the data. Highest prevalence of pregnancy-specific anxiety (PSA) was reported during the third trimester of pregnancy. All pregnant women rated high levels of third trimester childbirth anxiety compared to other three components of pregnancy-specific anxiety. Nulliparous pregnant women reported higher levels of PSA than parous pregnant women. Young age, nulliparous status and nuclear family nature were identified as common risk factors of pregnancy-specific anxiety. During the transition to motherhood, the risk factors and timing of heightened pregnancy-specific anxiety differ. Higher prevalence of pregnancy anxiety among nulliparous and younger pregnant women necessitates an integrated routine screening of PSA during prenatal care [3]. The present study aims to evaluate the anxiety regarding labour process among primi parturient mothers.

Methodology

The study was conducted at Government General hospital, Kancheepuram district. Cross sectional study design was adopted for this study. 60 primi

parturient mothers were selected by simple random sampling technique. The Inclusion Criteria includes (a.) Primiparturient mothers between 37-42 weeks of gestation, (b.) Primiparturient mothers who were in the first stage of labour with 3-5cm of cervical dilatation, & Primiparturient mothers who were willing to participate in the study. The exclusion Criteria were (a.) mothers who were posted for LSCS, (b.) Mothers with complications of pregnancy such as preterm rupture of membranes, pregnancy induced hypertension, gestational diabetes mellitus etc.

Development and Discription Tool

The tool consists of two sections. Section A consisted of Structured questionnaire to elicit demographic variables of primi parturient mothers such as age, religion, education, occupation, type of work and residence & Obstetrical variables such as gestational age, gravity and cervical dilation.

Section B pertained to assess the anxiety of Primiparturient mothers by Standardized Zung self rated anxiety scale. The scale has 20 questions which are used to assess the level of anxiety among primiparturient mothers. The total score was 80.

The scores were interpreted as follows:

- a. 25% -55% - Normal Range
- b. 56%-74% - Mild to Moderate Anxiety Levels
- c. 75% -92% - Marked to Severe Anxiety Levels
- d. 93% - 100% - Extreme Anxiety Levels.

Ethical Consideration

The research proposal was approved by the dissertation committee of S.R.M College of Nursing, S.R.M University, Kattankulathur, Kancheepuram district. Permission was obtained from the Medical officer, in charge, Government General Hospital, Kancheepuram where the study was conducted. Informed consent was obtained from the study participants, after explaining the nature and duration of the study. Assurance was given to the individuals that each individual report will be maintained confidentially.

Results

The data collected was arranged and tabulated to interpret the findings of the study. The data was analyzed by using both descriptive and inferential statistical methods.

Table 1: Frequency and percentage distribution of demographic variables of primiparturient mothers

N= 60

Demographic Variables		Primiparturient mothers	
		Frequency (n)	Percentage distribution (%)
Sex	18-22	29	48.3
	23-27	21	35
	28-32	7	11.7
	>32	3	5
Religion	Hindu	33	55
	Christian	18	30
	Muslim	9	15
Education	No formal education	9	15
	Primary school	20	33.3
	Middle school	13	21.7
	High school	10	16.6
	Higher secondary school	4	6.7
	Graduate	4	6.7
Occupation	Home maker	21	35
	Self employed	22	36.7
	Private	11	18.3
	Government	6	10
Type of work	Sedentary	27	45
	Moderate	25	41.7
	Heavy	8	13.3
Residence	Rural	35	58.3
	Semi urban	19	31.7
	Urban	6	10
Gestational age	37 Weeks	8	13.3
	38 Weeks	16	26.7
	39 Weeks	23	38.3
	40 Weeks	13	21.7
Gravida	1	43	71.7
	2	12	20
	>2	5	8.3
Cervical dilatation	3 cm	21	35
	4 cm	23	38.3
	5 cm	16	26.7

The demographic variables of primi parturient mothers showed that, regarding the age distribution of primiparturient mothers, maximum 29 (48.3%) mothers were in between (18-22) and minimum 3 (5%) mother age was above 32 years. Considering the religion, maximum 33 (55%) mothers were Hindu and minimum 9 (15%) were Muslims. With respect to the educational qualification, maximum 20 (33.3%) mothers had primary school and minimum 4 (6.7%) mother had higher secondary school and also completed graduate.

Regarding occupation, maximum 22 (36.7%) were self employed and minimum 6 (10%) were Government servants. With regard to the type of work, maximum 27 (45%) mothers were sedentary workers

and minimum 8 (13.3%) mothers were heavy workers. Considering the residence, maximum 35 (58.3%) mothers were in rural area and minimum 6 (10%) mothers were in urban area. With respect to the gestational age of primiparturient mothers, maximum 23 (38.3%) mothers were in 39 weeks of gestation and minimum 8 (13.3%) mothers were in 37 weeks of gestation.

Regarding the gravid status of the primiparturient mother, maximum 43 (71.7%) mothers belonged to gravida 1, and minimum 5 (8.3%) mothers belonged to >2 gravida. Considering the cervical dilatation, maximum 23 (38.3%) were in 4cm dilatation, 21 (35%) were in 3 cm cervical dilatation, and minimum 16 (26.7%) were in 5 cm dilatation.

Table 1: Frequency and percentage distribution of level of anxiety regarding labour process among primi parturient mothers N= 60

Level of a Anxiety	Primi parturient mothers	
	Frequency (n)	Percentage distribution (100%)
Normal	9	15
Mild to moderate	18	30
Marked to Severe	26	43.3
Extreme level	7	11.7

The analysis depicted that, regarding the level of anxiety regarding the labour process of primiparturient mothers, 9 (15%) of them were normal, 18 (30%) had mild to moderate level of anxiety, 26 (43.3%) had marked to severe level of anxiety and 7 (11.7%) had extreme level of anxiety.

Discussion

Pregnancy and childbirth have a way of changing the coping ability. Not all of it is mental either. Hormonal changes during pregnancy appear to make one more prone to anxiety and panic attacks, simply because they allow certain parts of the brain to become activated during periods of intense stress [4]. Pregnancy is a normal and natural experience of life, but there are so many reasons why a mother may be experiencing any degree of stress and anxiety in the months leading up to and during childbirth which includes First time mothers who fear the unknown, Fear of pain, Previous traumatic birth experience, Relationship problems, Health problems, Pregnancy complications, Work Stress & Lack of mental preparation [5].

The current study results depicted that, regarding the level of anxiety regarding the labour process of primiparturient mothers, 9 (15%) of them were normal, 18 (30%) had mild to moderate level of anxiety, 26 (43.3%) had marked to severe level of anxiety and 7 (11.7%) had extreme level of anxiety.

The present study findings are consistent with the study done by Aral I et al to investigate the effect of anxiety during late pregnancy periods and during labour on the duration of delivery in patients giving birth vaginally. In the study we included 50 nulliparous and 35 multiparous patients who were at or above the 28th gestational age and followed-up and admitted for birth at the present hospital. During the admission at the outpatient clinic at third trimester and at the beginning of labour, anxiety levels of patients were detected by performing the Spielberger State-Trait Anxiety Inventory. Statistically, the levels of the trait anxiety of multiparous patients were significantly higher. There

was a statistically significant correlation between state anxiety for both periods in nulliparous patients and latent and active phases, the first and the second stages, and total duration of the labour. In addition, there was a significant relationship between trait anxiety levels for both period and total duration of the labour. For multiparous patients, only positive significant correlation was detected with the level of state anxiety during labour. It has been seen that the anxiety occurring at the last trimester of pregnancy and labour, and especially acute state anxiety have negative effects on the duration of the phases of labour. It has been considered that the physical care provided for patients at the last trimester and during labour and also evaluation in terms of anxiety and provision of emotional support may cause positive outcomes for the duration of labour [6].

Another study done by K.A. Kumar et al., 2013 on the prevalence of pregnancy-specific anxiety across the three trimesters of pregnancy and postnatal period and to relate anxiety with labour outcomes. With ethical approval, a prospective cohort study was conducted among 500 low risk pregnant women of 18–35 years, in Kerala. Anxiety measured using State Trait Anxiety Inventory and Pregnancy-Specific Anxiety Inventory and labour outcomes noted. A U-pattern display of pregnancy specific anxiety was reported across trimesters of pregnancy with highest anxiety among nulliparous childbearing women (M=134.40). Unfavorable labour outcomes such as prolonged labour, preterm labour, low birth weight and unplanned caesarean sections were associated with high pregnancy - specific anxiety. The findings suggest that pregnancy anxiety is a core predictor of many adverse labour outcomes. A routine screening of pregnancy anxiety needs to be integrated into prenatal care [7].

Conclusion

The results of the study conclude that , among 60 primiparturient mothers, majority 26 (43.3%) had marked to severe level of anxiety regarding labour

process. Child birth preparation classes should be taken for the primiparturient mothers to alleviate their anxiety during labour. Early detection, prevention and management of pregnancy anxiety will enable women to cope with the challenges of pregnancy.

References

1. J Clin. A study to assess the aspects like emotional control. *Current Science*. 2002;28(5);137-43.
 2. The Effects of Anxiety and Stress, 4/24/2013, www.sacredvesselacupuncture.com/.../the-effects-of-anxiety-on-childbirth-and-the-ap
 3. Girija Kalayil Madhavanprabhakaran, Melba Sheila D'Souza, Karkada Subrahmanya Nairy. Prevalence of pregnancy anxiety and associated factors, *International Journal of Africa Nursing Sciences*, 2015;3:1-7.
 4. Anxiety Attacks During Labor and Delivery, <https://www.calmclinic.com/anxiety/attacks/labor-and-delivery>.
 5. Gao LL, Chan SW, Sun K. A study to examine the effects of an interpersonal psychotherapy oriented childbirth education programme. *The journal of obstetric and gynaecology*. 2010;101(3):921-28 .
 6. Aral I, Köken G, Bozkurt M, Sahin FK, Demirel R, Evaluation of the effects of maternal anxiety on the duration of vaginal labour delivery. *Clin Exp Obstet Gynecol*. 2014;41(1):32-6.
 7. Girija Kalayil Madhavanprabhakaran, K.A. Kumar, Shanthi Ramasubramaniam and Adenike Adepero Akintola. Effects of pregnancy related anxiety on labour outcomes: A prospective cohort study. *Journal of Research in Nursing and Midwifery*, 2013 Sep;2(7):96-103.
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