

Knowledge and Anxiety Level on Labour Process among Primigravida Mothers in a Selected Hospital, Kamrup (M), Guwahati, Assam: A Descriptive Study

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ABSTRACT

Introduction: Many Indian women are unaware about the changes that occur in their body during pregnancy and labour, as a result many mothers suffer physiologically and psychologically, hence education is needed for mother especially to primigravida mothers.

Aims and Objectives: The aim of the study is to assess the level of knowledge and level of anxiety on labour process among primigravida mothers who are attending antenatal OPD at a selected hospital.

Methods and materials: A descriptive survey research design was used and purposive sampling technique was used for obtaining sample for the study. Study was undertaken on 100 sample primigravida mothers at Maternity and Child welfare Hospital of Guwahati, Assam.

Results: The finding shows that majority i.e. 53% had inadequate knowledge, 44% had moderately adequate knowledge and only three (3%) had adequate knowledge on labour process, majority of the respondents i.e. 58% had moderate anxiety and 42% had severe anxiety. There was association between the knowledge level and selected demographic variables such as age, education, trimester of pregnancy and any prenatal counselling given. Also with anxiety and selected demographic variables such as education, occupation and any types of prenatal counseling attend. There was moderate negative correlation (-0.310) between knowledge and anxiety scores on labour process among primigravida mothers.

Conclusion: This study shows that primigravida mothers had lack of knowledge and moderate anxiety on labour process. Therefore health personnel need to conduct the education programmes to improve the level of understanding as to reduce the level of anxiety on labour process.

Keywords: Primigravida, labour process, anxiety, delivery, childbirth, pregnancy

INTRODUCTION

Pregnant women especially primigravida have to be informed about the process of labour and what is expected of them in the labour room so also what they should expect from their care givers during labour. The fears of pregnant women about labour should be allayed to reduced anxiety

that may be associated with pregnancy and labour.^[1]

When a woman carry a child for the first time she may be anxious about how they are going to cope with themselves besides pregnancy is an important event in the life of a women, it requires special care from the time of conception to the postnatal stage, every pregnancy is a distinctive

experience and each pregnancy the women experience will be new and adequately different.^[2]

During labour many women encounter the problems of fear, pain of contractions and pain as menacing but it often associate it with a loss of control over their bodies and emotions. When a woman is in labour, especially for the primigravida mothers, they be anxious about their ability to with stand the pain of labour and maintain control over herself.^[3]

Unfortunately, Many Indian women who were illiterate were lack of knowledge about physiological changes during pregnancy and during labour, especially at the first time and so they suffers psychologically ultimately which in turn affect their gynecological health of antenatal mother's childbirth as pregnancy is a physical and emotional experience. Considering the above facts it is necessary to assess the knowledge regarding normal delivery among the primigravida mother to prevent possible complication and to reduce the maternal mortality ratio, and perinatal mortality and morbidity is contributing to healthy mother.^[4]

Worldwide, every three minute, a woman lost their lives due to pregnancy and its related complications approximately 800 women every day and in India, one mother dies every 10 minutes due to pregnancy-related cause. Despite the availability of advanced medical technology, women continue to die in the process of child birth and the maternal morbidity and mortality has been remained same in the past three decades .In India over 56,000 women dying each year from pregnancy-related causes, and it has among the highest number of maternal deaths anywhere in the world, with. It is calculated that for every 100,000 live births in India, 212 mothers will die. Statistics of India show that India every 5 minutel women dies due to which complication related to pregnancy and child birth. Every pregnancy carry a risk and 15% women often develop life threatening complications and 50% of women also

suffer from acute complications resulting from pregnancy and childbirth.^[5]

Selvanayaki V. (2015) conducted a study to assess the knowledge on childbirth process among primigravida mothers in Salem polyclinic, Salem, by using purposive sampling technique 50 primigravida mothers were selected and structured interview schedule were adopted for data collection. The overall mean knowledge scores on childbirth process (15.76 ± 4.17) shows that the primi mothers had poor knowledge. Mothers had poor knowledge on first stage of labour (5.88 ± 2), second stage of labour (2.06 ± 1.2) and third stage of labour (0.94 ± 0.71), whereas average knowledge on signs and symptoms of onset of true labour (2.94 ± 1.37). The overall finding revealed that primimothers had poor knowledge on childbirth process, therefore a health personnel need to conduct the education programmes on various methods to increase the knowledge on childbirth process which will ultimately help the mothers to reduce their fear and anxiety during labour process.⁴

The investigator has come across antenatal mothers who are unaware of the labour process, the complication during pregnancy and during childbirth and the birth preparation As a midwife ,the main role is to assess and provide their knowledge and also to provide health education thereby creating awareness regarding preparedness, labour process ,anxiety level and complication readiness for the better outcome.

The investigator had undergone through the previous study and only few studies have done regarding labour process and assessing anxiety level, besides from the personal experiences the investigator felt the need and motivated of studying this topic by assessing their knowledge and anxiety level with providing health education so as to make them aware about it and prevent the possible complication which are preventable.

OBJECTIVES:

1. To assess the level of knowledge on labour process among primigravida mothers in a selected hospital, Kamrup, Guwahati Assam.
2. To assess the level of anxiety on labour process among primigravida mothers in a selected hospital, Kamrup, Guwahati Assam.
3. To find out the correlation between the level of knowledge of the primigravida mothers with the level of anxiety on labour process in a selected hospital, Kamrup, Guwahati, Assam.
4. To find out the association between the knowledge and level of anxiety of the primigravida mother on labour process with the selected demographic variables in a selected hospital, Kamrup, Guwahati, Assam.

METHODS AND MATERIALS

A descriptive survey research design was used in this study to accomplish the objectives. Purposive sampling technique was used for obtaining adequate sample for the study. Study was undertaken on 100 sample primigravida mothers at Maternity and Child Welfare Hospital, Dhirenpara Guwahati, Assam. Semi structured knowledge questionnaire and 4 point Likert scale was used as tool for the study. Respondent were selected on the basis of inclusive and exclusive criteria. Ethical permission was obtained before data collection and permission was obtained from the selected Hospital. The investigator collected the list of primigravida mother who are attending the antenatal OPD from the registration counter and has identified the sample. A brief self introduction and purpose of the study were explained to the sample prior to data collection and keeping in mind the ethical aspect of research. Data was collected after obtaining the informed consent of the sample with their willingness

to participate in the study. The samples were also assured anonymity and confidentiality of information provided by them. The collected data were analyzed in terms of objectives of the study using descriptive and inferential statistics.

Statistical analysis:

The collected data were analysed on the basis of the objectives and data was organized in the master sheet and tabulated for statistical analysis. Demographic data were represented in terms of frequency and percentage.

Mean, standard deviations were used to assess the level of knowledge and anxiety score. Karl Pearson's correlation coefficient test was used to find out the correlation between the level of knowledge of the primigravida mothers with the level of anxiety.

Chi square test was used to find out the association between the knowledge and level of anxiety of the primigravida mother with selected demographic data.

Description of the tool

Section A: Demographic data consist of Age in years, religion, education, occupation, income per month, trimester of pregnancy, type of family, type of pregnancy, duration of marriage, residence, support system during the process for delivery, previous information regarding labour, source of information, any prenatal counseling given, any types of prenatal counseling attend.

Section B: Semi structured knowledge questionnaire. It consists of 30 questionnaires.

Section C: 4 point Likert scale was used to assess anxiety level. It consisted of 14 items with 7 positive statements and 7 negative statements.

RESULT

Table I: Frequency and percentage distribution of primigravida mothers according to demographic variables. n= 100

Demographic Variables	Frequency (f)	Percentage (%)
Age in years		
≤25	56	56
26 – 35	43	43
>35	1	1
Religion		
Hindu	61	61
Islam	39	39
Christian	-	-
Others	-	-
Education		
Primary school	35	35
High school	31	31
Higher secondary school	13	13
Graduate	9	9
Others	12	12
Occupation		
Business	18	18
Govt. Servant	1	1
Private	4	4
Others	77	77
Income per month		
≤Rs.10001	48	48
Rs.10002 – 29972	32	32
Rs.29973 – 49961	16	16
Rs.49962 – 74755	3	3
Rs.74756 – 99930	1	1
Rs.99931 – 199861	-	-
≥199862	-	-
Trimester of pregnancy		
≤3 months	18	18
4 – 6	42	42
≥7	40	40
Type of family		
Nuclear family	59	59
Joint family	40	40
Extended family	1	1
Type of pregnancy		
Unplanned pregnancy	4	4
Planned pregnancy	96	96
Duration of marriage		
≤5 years	88	88
6 – 10 years	5	5
≥11 years	7	7
Residence		
Urban	85	85
Rural	15	15
Support system during the process of preparation for delivery		
Health personnel	76	76
Family	22	22
Relatives	1	1
Others	1	1
Previous information regarding labor		
Yes	55	55
No	45	45
Source of information		
Mass media	6	6
Health professionals	27	27
Elders and relatives	17	17
Friends and others	2	2
Newspapers	3	3
Others	-	-
No	45	45
Any prenatal counseling given		
Yes	54	54
No	46	46
Any types of prenatal counseling attend		
General care counseling	36	36

Demographic Variables	Frequency (f)	Percentage (%)
Dietary counseling	6	6
Breast feeding counseling	-	-
Family planning counseling	6	6
Genetic counseling	-	-
Childbirth: labour, delivery and postpartum care counseling	1	1
Women with HIV/AIDS counseling	3	3
Pregnancy and mental health counseling	2	2
Others	-	-
No	46	46
Yes	54	54
No	46	46
Any types of prenatal counseling attend		
General care counseling	36	36
Dietary counseling	6	6
Breast feeding counseling	-	-
Family planning counseling	6	6
Genetic counseling	-	-
Childbirth: labour, delivery and postpartum care counseling	1	1
Women with HIV/AIDS counseling	3	3
Pregnancy and mental health counseling	2	2
Others	-	-
No	46	46

Table II : Frequency and percentage distribution of primigravida mothers according to level of knowledge on labour process . n=100

Knowledge level	Frequency(f)	Percentage (%)	Mean	SD	Range of score	Total score
Inadequate ≤9 (score ≤ 33%)	53	53%	9.35	3.89	3-20	30
Moderate 10 – 18 (score34- 66%)	44	44%				
Adequate ≥19 (≥67%)	3	3%				

The table II: depicts the percentage distribution of level of knowledge on labour process among primigravida mothers. The results shows that 53(53%) had inadequate knowledge, 44(44%) had moderately adequate knowledge and 3(3%) had adequate knowledge on labour process the mean score of knowledge was 9.35 ± 3.89 and SD was 3.89.

Table III: Frequency and percentage distribution of primigravida mothers according to level of anxiety on labour process. n=100

Anxiety level	Frequency (f)	Percentage (%)	Mean	SD	Range of score	Total score
Mild :- ≤18(≤32% score)	0	0%	35.52	3.17	27-43	56
Moderate:- 19 – 36 (33%-66%)	58	58%				
Severe:- ≥37(≥67%)	42	42%				

The table III depicts the percentage distribution of level of anxiety on labour process among primigravida mothers. The result shows that 58(58%) had moderate anxiety and 42(42%) had severe anxiety. The mean score of anxiety was 35.52 ± 3.17 and SD was 3.17.

Table IV: Association between level of knowledge on labour process among primigravida mothers with selected demographic variables. n=100

Demographic Variables	Chi square	Df	P- value	Remarks
1. Age in years	13.2	4	0.003	Significant at $p < 0.01$
2. Religion	0.66	2	0.767	Not significant $p > 0.05$
3. Education	20.0	8	0.003	Significant at $p < 0.05$
4. Occupation	6.43	6	0.420	Not significant $p > 0.05$
5. Income per month	8.50	8	0.432	Not significant $p > 0.05$
6. Trimester of pregnancy	11.11	4	0.022	Significant at $p < 0.05$
7. Type of family	3.47	4	0.683	Not significant $p > 0.05$
8. Type of pregnancy	0.84	2	0.693	Not significant $p > 0.05$
9. Duration of marriage	5.98	4	0.169	Not significant $p > 0.05$
10. Residence	0.29	2	1.000	Not significant $p > 0.05$
11. Support system during the process of preparation for delivery	8.82	6	0.202	Not significant $p > 0.05$
12. Previous information regarding labour	2.14	2	0.370	Not significant $p > 0.05$
13. Source of information	10.2	10	0.405	Not significant $p > 0.05$
14. Any prenatal counselling given	5.68	2	0.045	Significant at $p < 0.05$
15. Any types of prenatal counselling attend	12.4	12	0.473	Not significant $p > 0.05$

The table IV: Shows the association between level of knowledge on labour process among primigravida mothers with their demographic data. The table shows that the demographic variable age had shown statistically significant association between level of knowledge on labour process among primigravida mothers at $p < 0.01$. The demographic variables age,

education, trimester of pregnancy and prenatal counselling given had shown statistically significant association with level of knowledge on labour process among primigravida mothers at $p < 0.05$. The other demographic variables had not shown statistically significant association with level of knowledge on labour process among primigravida mothers.

Table V: Association of pretest level of anxiety on labour process among primigravida mothers with selected demographic variables. n=100

DEMOGRAPIC VARIABLES	Chi square	Df	P- value	REMARKS
1. Age in years	5.19	2	0.051	Not significant $p > 0.05$
2. Religion	0.97	1	0.407	Not significant $p > 0.05$
3. Education	9.42	4	0.049	Significant at $p < 0.05$
4. Occupation	7.31	3	0.042	Significant at $p < 0.05$
5. Income per month	1.88	4	0.864	Not significant $p > 0.05$
6. Trimester of pregnancy	3.46	2	0.189	Not significant $p > 0.05$
7. Type of family	2.43	2	0.214	Not significant $p > 0.05$
8. Type of pregnancy	1.86	1	0.307	Not significant $p > 0.05$
9. Duration of marriage	1.63	2	0.406	Not significant $p > 0.05$
10. Residence	1.70	1	0.260	Not significant $p > 0.05$
11. Support system during the process of preparation for delivery	2.16	3	0.681	Not significant $p > 0.05$
12. Previous information regarding labour	0.002	1	1.000	Not significant $p > 0.05$
13. Source of information	2.54	5	0.822	Not significant $p > 0.05$
14. Any prenatal counselling given	2.54	5	1.000	Not significant $p > 0.05$
15. Any types of prenatal counselling attend	0.01	1	0.028	Significant at $p < 0.05$

The table V shows the association between level of anxiety on labour process among primigravida mothers with their demographic variables. The table shows that the demographic variables education, occupation and types of prenatal counselling attend had shown statistically significant association with level of anxiety on labour process among primigravida mothers at $p < 0.05$. The other demographic variables had not shown statistically significant association with level of anxiety on labour process among primigravida mothers.

as the level of knowledge were inadequate there were moderate level of anxiety.

DISCUSSION

The study reveals that out of 100 antenatal mothers majority of the mothers i.e. 53 (53%) fall under the category of inadequate knowledge, 44(44%) had moderately adequate knowledge and 3(3%) had adequate knowledge on labour process. This study is in contrast to a study findings of Pankot R, Patidar N, Devi NJ et al. (2018) knowledge regarding process of normal labour among primigravida mothers in a selected hospital in Pune city in which the results shows 22% of mothers having poor knowledge about process of normal labour, 74% of mothers were having average knowledge regarding process of normal labour, 4% of mothers are having good knowledge about process of normal labour. [3]

Table VI : Correlation between knowledge and anxiety scores on labour process among primigravida mothers. n=100

VARIABLES	MEAN	S.D	'r' value	'P' value
Knowledge	9.35	3.89	-0.310	0.002, S**
Anxiety	35.52	3.17		

Data from table VI reveals that the 'r' value is -0.310 and 'p' value is 0.002 which is significant at 0.05 level of significance. There is a moderate negative correlation between knowledge and level of anxiety on labour process among primigravida mothers. It clearly infers that

The present study shows that out of 100 antenatal mothers majority of the mothers i.e. 58(58%) were having moderate anxiety on labour process, 42(42%) had

severe anxiety, this is supported by the study conducted by Sapkota B, Mali S N et al. (2019) a study on prenatal anxiety among pregnant women visiting in antenatal care outpatient department at Paropakar maternity and women's hospital in which 40.9% had minimal anxiety, 42.15 had mild to moderate anxiety and 16.9% had severe anxiety.^[6]

In present study there was correlation between knowledge and anxiety on labour process. The calculated Karl Pearson's Correlation Value of $r = -0.310$ shows a moderate negative correlation which was found to be statistically significant at $p < 0.01$. It clearly infers that knowledge on labour process among primigravida mothers decreases their anxiety level increases.

In the present study there was association between level of knowledge on labour process among primigravida mothers with the selected demographic variables like age, education, trimester of pregnancy, and there was association between anxiety level on labour process among primigravida mothers with the selected demographic variables like types of prenatal counselling attend.

CONCLUSION

The study conclude that as the knowledge were inadequate and moderate level of anxiety was present among primigravida mothers, it is recommended that there should be more awareness programmes related to child birth and delivery process among antenatal mothers including the family members so as to support them throughout pregnancy and during labour, the healthcare worker should educate the mothers properly whenever they come for checked up which will increase their knowledge and will reduce the pregnancy related anxiety.

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REFERENCES

1. Omotayo RS, Akintan AL, Akadiri O et al. Level of awareness of Primigravida about Pregnancy and Antenatal Care at the Time of Booking in a South West Nigerian Tertiary Hospital. *Clinic in surgery journal* [Internet] 2020 Jul 15;8(3):83-96[cited on 2021 Jan 2]. Available from URL http://www.clinicsinsurgery.com/pdfs_folder/cis-v5-id2868.pdf.
2. Walia N, Ramanadin V, Kiran. A descriptive study to assess the level of knowledge related to labour process among primigravida in selected Hospitals of Punjab and Haryana. *Asian J. Nur. Edu. & Research* [Internet] 2014 July [cited on 2021 Jan 30] 4(3);273-275 .Available from URL <https://ajner.com/HTMLPaper.aspx?Journal=Asian%20Journal%20of%20Nursing%20Education%20and%20Research;PID=2014-4-3-2>
3. Punjot R, Patidar N, Devi NJ et al. A study to assess knowledge regarding the process of normal labor among primigravida mothers in selected hospitals of Pune city. *IJNH* [Internet] 2018 [cited on 2021 Jan30] 4(2):66-71. Available from URL http://innovationalpublishers.com/Content/uploads/PDF/690645763_IJNH-06-AJ-2018-24.pdf
4. Selvanayaki V. A study to assess the knowledge on childbirth process among primigravida mother at Salem Polyclinic Tamilnadu. *International Journal on Current Research* [Internet] 2015 July ;7 (7);18504-18506[cited on 2021 jan 2] .Available from URL <https://www.journalcra.com/article/study-assess-knowledge-childbirth-process-among-primigravida-mothers>
5. Mulik MS, Salunkhe J, Salunkhe AH. A study to assess knowledge and effectiveness of structured teaching programme on child birth process among primipara mothers. *IJHSR* [Internet] 2014;4(11):174-178:[cited on 2021 Feb 9] .Available from URL https://www.ijhsr.org/IJHSR_Vol.4_Issue.11_Nov2014/25.pdf
6. Sapkota B , Mali S.N , Singh RD et al. Prenatal Anxiety among Pregnant Women Visiting in Antenatal Care Outpatient

Lalchungnungi et.al. Knowledge and anxiety level on labour process among primigravida mothers in a selected hospital, Kamrup (M), Guwahati, Assam: a descriptive study.

Department at Paropakar Maternity and Women's Hospital. IJHSR 2019 March; 9(3)173-181[cited on 2021 Feb 6] Available from : URL https://www.ijhsr.org/IJHSR_Vol.9_Issue.3_March2019/25.pdf

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