

Effectiveness of pre delivery preparation on anxiety among Primigravida mothers at maternal child health centre Tirupati, AP, India

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Abstract : Introduction: Child birth is perceived as a natural process in woman's life. Primi gravid mother may experience anxiety about the process of labour. Prenatal education on imparting knowledge may reduce the anxiety associated with child birth. The present study was conducted on effectiveness of pre delivery preparation on anxiety level. Anxiety was measured by modified Spielberger's state anxiety scale before and after education.

Methodology : Quasi experimental pre –test and post –test experimental ,control group design was conduct the study. Sample size was 60, experimental group consists of 30, and control group 30 primigravida mothers .Education was given to experimental group, control group received routine antenatal care.

Results : The anxiety among experimental group was reduced which is significant at 0.01 level (t value-19.023).Significance was not found in pre assessment and post assessment anxiety in control group(t-value-1.493).severity of anxiety was decreased in experimental group than in control group

Conclusion : Predelivery preparation was found to be effective in reducing anxiety among primigravida mothers.

Key words – Primi gravida , Anxiety, pre delivery preparation, MCH centre.

I. Introduction

Childbirth is one of the greatest events in every woman's life, especially among primigravida mothers. Having had fantasies about pregnancy and motherhood when confronted with the reality many of them doubt their ability to cope with this great event in their lives. Many of the mothers do not know about what changes takes place and their role . In the presence of childbirth. At this time ,the mother –to-be needs lot of help for the realization and acceptance of childbirth as a normal physiological phenomenon.¹

Pregnant women experience a range of physical and emotional changes, which may trigger anxiety². The third trimester of pregnancy is the time of anticipation. Primigravida mothers usually have increased anxiety and concern about labour and the delivery. As fear and anxiety heighten muscle tension increases inhibiting the effectiveness of contractions increasing discomfort and further heightening fear and anxiety³. Girija Kalayil Madhavanprabhakaran et al¹⁴ found prevalence of 93% severe anxiety about child birth during third trimester. The study also revealed significant association of pregnancy specific anxiety with unplanned caesarean requested by mothers. So the pregnant women should need adequate information and guidance regarding labour during pregnancy through child birth preparation classes. Sue kim et al.⁴, results showed that there was no significant reduction in anxiety, there was statistically significant increase for childbirth self-efficiency in the experimental group when compared to the control group.

In childbirth education, teaching will be about physical, emotional aspects of pregnancy, childbirth, early parenthood coping skills & supportive techniques during labour. Karthyn Crowe et al⁵ examined possible predictors of positive childbirth and found that those who demonstrated greater knowledge of childbirth and higher confidence after classes subsequently reported less painful childbirth and those with higher level of knowledge on child birth related to fear before classes reported experiencing less anxiety during labour and delivery. This study emphasized psychological factors appear to be most predictive of positive child birth experience include knowledge, confidence, and anxiety and recommended prenatal education on imparting knowledge, instilling confidence. Researchers also observed anxiety of primi mothers during their clinical posting and felt the necessity to carry out the study.

II. METHODOLOGY:

Quasi experimental approach was adopted to achieve the objectives of the study. Pretest, posttest control group design was selected to conduct the study. The design consists of two groups, experimental and control group. Primigravida mothers who were in third trimester were included in the study. Sample size was

60. Purposive sampling technique was adopted to select sample and assigned thirty subjects to experimental group and thirty subjects to control group.

Reliability and validity of the tool was established. The study was conducted in selected MCH center at Tirupati. Modified Spielberger's state anxiety scale was used to measure pre and post intervention anxiety in experimental and control group. It consists of 30 point Modified Spielberger's state trait anxiety scale to assess the level of anxiety. Reverse code was given to positive statement. In this scale the items are categorized as Fear of labour process, General condition, Pain, Financial, Complications, Family support, baby. The score interpretation are <50% mild anxiety, 50-75% moderate anxiety, >75% severe anxiety.

A formal written permission was obtained from the health officer of municipal corporation, Tirupathi. The data was collected from 12-3-2012 to 14-4-2012 from primigravida mothers at maternal and child health centre. Data was collected through interview technique. After explaining about the study, selected primi gravid mothers taken to separate room where interview was done. Investigator made the mothers to sit comfortably and obtained their consent. Pre assessment data was collected from 60 primigravida mothers in experimental and control groups by administering Modified Spielberger's anxiety scale. Structured teaching programme on predelivery preparation was implemented with group approach to experimental group mothers along with their routine antenatal care while control group receives routine antenatal care only. Post assessment data was collected one week after the implementation of teaching strategies by using the same tool used for pre test.

III. OBJECTIVES

- To compare the effectiveness of pre delivery preparation on anxiety level between experimental and control group
- To determine the association between the selected demographic variables with post assessment level of anxiety among experimental group primigravida mothers
- To assess the anxiety level among experimental and control group primigravida mothers.
- To develop and prepare structured teaching programme on predelivery preparation and provide to experimental primi gravida mother

Findings

Table-1. Demographic Profile of primi gravida mothers

S.NO	Demographic variables	Experimental Group (%)	Control Group (%)
1	Age of mothers in years		
	a.<18	3.33	10
	b.18-21	40	40
	c.22-25	30	30
2	d.26-29	26.67	20.0
	Educational status		
	a. illiterate	3.33	6.67
	b. primary education	13.33	13.33
	c. secondary education	20.00	36.67
	d. higher secondary education	26.67	26.67
3.	e. graduate	20.0	10.0
	f. post graduate	16.67	6.67
	Occupation		
	a. house wife	73.33	66.67
4.	b. cooli/ labourer	3.33	13.33
	c. employee	23.34	20.0
	Family income per month in rupees		
5.	a.<3000		
	b. 3001-6000	13.3	3.33
	c. 6001-9000	26.67	33.33
	d. above 9000	43.33	53.33
6	Religion of the mother	16.67	10.0
	a. Hindu		
	b. Muslim	66.67	63.33
	c. Christian	26.67	16.67
6	Type of family	6.67	20
	a. nuclear		
	b. joint	46.67	50.00
	c. extended	50.00	46.67

.7	Marital life in years	3.33	3.33
	a. <1		
	b. 1-3	36.67	26.67
	c. 4-5	53.33	63.33
8	Area of living	10.00	10.00
	a. rural		
	b. urban	13.32	16.67
9.	Period of gestation in weeks	86.67	83.33
	a. 29-32		
	b. 33-36	43.33	20.0
	c. 37-40	23.33	46.67
10.	Number of antenatal checkups attended	33.33	33.33
	a.1		
	b.2		
	c.3	3.33	3.33
	d. more than 3 checkups	13.33	10.0
	Source of information on labour process	20.00	30.00
11.	a. mass media	63.33	56.67
	b. family members		
	c. health personnel		
	d. friends	13.33	3.33
	e. none	43.33	60.00
		20.00	23.33
		13.33	6.67
		13.33	6.67

Majority of the women of both groups are in the age group of 18 to 21 years. Majority in experimental group (66.6%) control group (63.33%) belong to Hindu religion. Most of the mothers in experimental group (63.3%) control group (56.67%) had received more than three antenatal checkups. 43.33 percent in experimental group and 60 percent in control group received information about labour from the family members, not from the health personnel.

Table: 2 Comparison between Pre and post assessment mean, standard deviation and t-value of the anxiety among experimental and control group primigravida mothers

S. No.	Group	Pre assessment		Post assessment		Paired 't' value
		Mean	SD	Mean	SD	
1	Experimental	71.767	10.782	46.233	8.156	19.023**
2	Control	75.267	7.271	76.533	5.302	1.493 NS

**= Significant at 0.01 level, NS= Not significant

Table 2 shows that in the experimental group post assessment mean anxiety value 46.233(SD=8.156) was lower than pre assessment mean anxiety value 71.767 (SD=10.782). The obtained 't' value was 19.023 which was significant at 0.01 level. This clearly shows that there was a significant difference in the anxiety level among experimental primigravida mothers before and after implementation of pre delivery preparation. In control group post assessment mean anxiety value 76.533 (SD=5.302) was higher than in the pre- assessment mean anxiety value 75.267 (SD 7.271). The obtained 't' value 1.493 which was not significant. This clearly shows that there was no significant difference in anxiety level among control group primigravida mothers. significant reduction of anxiety in the experimental group where as in the control group there was no significant reduction in anxiety, which shows that pre delivery preparation programme was effective in reducing anxiety among primigravida mothers.

Table- 3 Comparison of level of anxiety

S. No	Level of Anxiety	Experimental group		Control group	
		Pre assessment	post assessment	Pre assessment	post assessment
1	Mild	6.67	83.33	6.67	6.67
2	Moderate	86.67	16.67	90	90
3	Severe	6.67	0	3.33	3.33

The data presented in table3 shows that in pre assessment among 30 mothers in experimental group and control group most of the sample expressed moderate anxiety (86.67%,90%).Post assessment data showed in experimental group 25 (83.3%) had mild anxiety, 5 (16.67%) had moderate anxiety where as 30 mothers in control group, 27 (90%) had moderate anxiety 2 (6.67%) had mild anxiety and 1 (3.33%) had severe anxiety

Table-3Pre assessment anxiety levels on different categories on primigravida mothers in experimental and control group

s.no	Anxiety scale categories	Level of anxiety	Experimental group%	Control group%
1.	Fear of labour process	Moderate	70.00	63.33
		Severe	30.00	36.67
2.	General condition	Mild	70.00	63.66
		Moderate	30.00	36.67
3.	Pain	Moderate	86.67	70.00
		Severe	13.33	30.00
4.	Financial	Mild	56.67	53.33
		Moderate	30.00	43.33
		Severe	13.33	3.33
5.	Complication	Moderate	50.00	43.33
		Severe	50.00	56.67
6.	Family support	Mild	96.67	56.67
		Moderate	3.33	100.0
7.	Baby	Mild	83.33	80.00
		Moderate	16.67	20.00

Most of the mothers in both groups moderate anxiety about pain during labour, and fear of labour process.

Table4 Post assessment anxiety levels on different categories on primigravida mothers in experimental and control group

S.No	Anxiety scale categories	Level of anxiety	Experimental group%	Control group
1.	Fear of labour process	Mild	83.33	3.33
		Moderate	16.67	96.67
2.	General condition	Mild	100	100
3.	Pain	Moderate	100	100
4.	Financial	Mild	100	100
5.	Complication	Moderate	96.66	23.33
		Severe	4.33	76.67
6.	Family support	Mild	100	100
7.	Baby	Mild	90.00	80.00
		Moderate	10.00	20.00

In post assessment fear about labour process is decreased in experimental group than in control group, anxiety about complications that it may arise during labour was reduced in experimental group than in control group.

No significant association was found between post test anxiety scores and experimental and control groups

IV. Discussion.

Data was collected from 60 primigravida mothers (30 experimental group, 30 control group) and analysed. Most of them had more than three antenatal checkups. Majority of the mothers received information about labour from family members. Most of the mothers in both groups reported moderate anxiety (86.67%, 90%). The findings are correlated with findings of Nisha Walia⁶ study where majority of primigravida (79%) had moderate level of anxiety. Melender HL (2002)⁷ study findings showed that 78% expressed their fears related to pregnancy, fear of child birth or both.

Post assessment mean anxiety value was lower than pre assessment anxiety which was significant at 0.01 level (t value=19.023). The findings are consistent with the findings Arietta – pinetal⁸ conducted prospective observational study to assess the benefits of antenatal education for child birth process in Spain, where Spanish women who had attended antenatal education experienced less anxiety than those who had not attended classes. The results of this study supported by the findings of Karkada Evans et al⁹ study on evaluation to determine the effectiveness of child birth preparation class in terms of behavioral responses during first stage of labour and outcome of labour among primigravida women in selected hospitals of south India where more women in experimental group who had attended child birth preparation classes, exhibited more of positive responses during first stage of labour, than mothers who had not attended child birth education classes.

The findings are consistent with the findings of Rajakumari.G Angel¹⁰ where the anxiety in experimental group was 37.19 which was significant at $p < 0.001$, Baby SP Laxmi study¹¹ also found significant reduction in anxiety score in experimental group ($t=19.79, p=0.001$), Gayatri KV et al¹² study 80% of primigravida mothers reported normal anxiety after planned teaching, severe anxiety was reported in control group. Ferguson Sally et al¹³ review identified that antenatal education may have some positive effects on women's labour and birth including less labour admissions, less anxiety, but more labour interventions.

V. CONCLUSION

Findings of this study revealed that pre delivery preparation was effective in reducing the anxiety level among experimental group of primigravida mothers.

IMPLICATIONS:

- Nurses and midwives should conduct planned teaching programme for primigravida mothers about child birth process in community centers, MCH clinics at OPD's in hospitals and home
- The nurse administrator should take interest in providing information regarding the need for organizing the health education programmes on labour (or) child birth education classes.
- Nursing schools and college students should be trained in planning and implementing health education programmes depending upon the needs of primigravida mothers during pregnancy
- Professionals and student nurses can conduct further studies on effect on child birth preparation classes on labour.

RECOMMENDATIONS:

- A similar study to be replicated with larger sample to generalize the findings
- Prospective observational study can be conducted to assess the effectiveness of child birth preparation on anxiety during labour

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Ethical consideration :

The study got approval from research committee college of nursing, SVIMS, Tirupati. consent was taken from participants

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