



# EFFECTIVENESS OF CHILDBIRTH PREPARATION CLASSES ON MATERNAL COPING SKILL AND CHILDBIRTH EXPERIENCE AMONG PRIMIGRAVIDA WOMEN AT KMCH, COIMBATORE

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## Abstract

The present study entitled, “Effectiveness of Childbirth Preparation Classes on Maternal Coping Skill and Childbirth Experience among Primigravida Women at KMCH, Coimbatore” was undertaken during the year 2020-2021 in partial fulfillment of the requirement for the degree of master science in nursing at KMCH college of nursing, Coimbatore which is affiliated to Tamilnadu Dr. M.G.R. Medical University, Chennai. The Objectives of the study are to evaluate the effectiveness of childbirth preparation classes on maternal coping skill and childbirth experience among primigravida women and to associate the level of maternal coping skill and childbirth experience among primigravida women with their selected demographic and clinical variables. The study design was true experimental, posttest only control group design. Totally 60 primigravida women are enrolled in this study, who were selected nonprobability purposive sampling technique. The content validity of the tool was obtained from various experts from obstetrics and gynecological medicine and nursing. The data collection was done for the period of 6 weeks in Kovai medical center and hospital. The investigator was approached women and informed to them regarding objectives and benefits of the study and obtained informed consent after assuring the confidentiality of the data. After the video assisted teaching, women’s coping skills, and childbirth experience were improved.

**Keywords:** video assisted teaching, childbirth preparation, and labour coping scale

## Introduction

When women becoming pregnant for the first time, childbirth is a life-changing experience even though it is a normal physiological process. A woman's experience of childbirth is always influenced by her emotions and expectations. An unprepared pregnant woman can experience a state of anxiety during the birthing process if she is not mentally and physically prepared. An important factor influencing the birthing experience of a pregnant woman is gaining confidence through enhanced knowledge about childbirth.<sup>1</sup>

New parents, grandparents, aunts, and uncles experience a great deal of joy and excitement when their newest member is born. The anticipation and excitement of welcoming the new baby fills their hearts. A family member will definitely hold the most beautiful and unforgettable memories of the baby's birth when they witness the baby's first smile, shed the first tears, and laugh for the first time. Birthing a baby is not without its challenges. Life-changing experiences like this are undoubtedly the best. <sup>2</sup>

As a result of pregnancy, a baby is delivered by vaginal delivery or by caesarean section, while one or more babies are released afterwards. There are many types of childbirth, but one of the most common and natural ones is vaginal. In a primigravida, the first stage of labor usually lasts between 12 and 19 hours, while the second stage usually lasts between 20 and 2 hours and the third stage usually lasts between 5 and 30 minutes. <sup>3</sup>

Taking childbirth classes can help maintain a healthy pregnancy. By improving knowledge and practice, the entire birth process can be improved. Knowing what to expect from the first contraction to the final push will greatly reduce a mother's anxiety. Preparation for birth is not only an exciting time for women; it can also be a time of anxiety and fear. A pregnant woman may need to adjust for childbirth during this period as she prepares for the new addition to her family. <sup>4</sup>

An organized, positive, relaxed, and planned birth experience is essential for a mother. She should stay organized, positive, relaxed, and plan ahead. The experience of giving birth is crucial for a mother, and her memories will last a lifetime. During childbirth, women face many challenges that can influence the course of labor, including fear and anxiety. For women to make informed choices when choosing a birth plan, it is imperative that they understand four factors: their own expectations, the support they receive from their caregiver, their relationship with their caregiver, and their ability to be involved in the process. <sup>5</sup>

### **Need for study.**

There is a common practice among women during labor to scream and shout, even with a completely dilatable cervix. Some women are unable to bear down a fully dilatable cervix because they are intolerant to pain. Therefore, labor will be prolonged as a result of this, which will affect the health of the unborn baby. In order to cope with the pain during labor, women need to make sure that they have pain relief measures that they can use. <sup>6</sup>

A study on antenatal mothers reduced their fears of labor. The importance of Iranian childbirth classes in empowering women and preparing them for their birth journey remains unclear despite their importance in reducing a woman's fear of childbirth. An analysis of 204 primiparous mothers whose gestational ages ranged from 35 to 37 weeks was conducted in this study. Iranian women's chances of having a positive birth experience can be increased by measuring the impact of childbirth preparation classes on their childbirth experiences. In light of the study, recommendations will be made regarding the content and quality of the classes. <sup>7</sup>

A retrospective study of 10,696 mothers found that low maternal weight gain during the second or third trimesters increased the risk of intrauterine growth retardation. It has been shown that poor weight gain during the last trimester has a 50% correlation with IUGR. Therefore, mothers must be educated about diet-related issues in order to prevent complications during the last trimester. <sup>8</sup>

The World Health Organization reported that in 2000, 39 out of 10,000 births were stillbirths. In most cases, fetal compromises can be detected early and prevented, according to the author. In order to teach mothers how to recognize fetal compromise, the mother will need a fetal monitor - Kick count. An educational package that teaches mothers about antenatal care and labor preparation is needed. However, despite childbirth preparation classes being available in the Indian context, most people do not attend them. It is only the wealthy who are able to take advantage of it. A total of 76.2% of Indians live in rural areas. The mothers in these areas should also receive benefits. Prenatal clinics at the hospital are attended by thousands of women. In most cases, antenatal clinics are the best option. These mothers can benefit from childbirth preparation programs. <sup>9</sup>

In ancient Indian texts, which contain knowledge about pregnancy and childbirth, culture and traditions about pregnancy and childbirth are rooted. With a female literacy rate of 71%, a 99.9% institution birth rate, and a caesarean birth rate of 33.6%, this city ranks third in having a lower infant mortality rate. In this part of India, childbirth is not discussed openly. The pain of childbirth is rarely discussed, despite the fact that it will be very painful. In accordance with the researcher's earlier study, 33% of rural women attending the antenatal clinic of a tertiary care hospital were inadequately informed about childbirth, 63% were moderately knowledgeable, and only 3.3% were knowledgeable. As a mother, you know what you are expected to do at every stage throughout childbirth when you are truly informed about it. In contrast to being filled with anxiety, fear, and apprehensions as she would otherwise be during labor, she is confident and has coping strategies that help her face labor with a satisfied attitude. As a result, the investigator is interested in studying the effects of Childbirth Education on labor and delivery outcomes. <sup>10</sup>

It was difficult for term mothers, especially primigravidas, to cope with the labor process when I was posted in the labor room at the KMCH in Coimbatore. My study examines how childbirth preparation classes impact primigravidas' coping skills and their pregnancy and delivery experiences.

### **Statement of the problem**

Effectiveness of childbirth preparation classes on maternal coping skill and childbirth experience among primigravida women at KMCH, Coimbatore.

### **Objectives**

1. To determine the effectiveness of childbirth preparation classes on maternal coping skill and childbirth experience among primigravida women.
2. To associate the level of coping skill and childbirth experience with the selected demographic and clinical variables among primigravida women.

**Hypothesis**

**H<sub>1</sub>:** There will be a significant improvement in maternal coping skill and childbirth experience of primigravida women attending child birth preparation classes.

**Assumptions**

Knowledge of labor process reduces an anxiety.

**Sample size**

Sample size consisted of 60 primigravida mother.

**Sampling technique**

Nonprobability purposive sampling technique was adopted for this study. To overcome the contamination of sample between the groups. The investigator first completed the selection of control group followed that selection of experimental group.

**Criteria for sample selection****Inclusion criteria**

1. Primigravida women who had attended antenatal OPD after 35 weeks of gestation.
2. Primigravida women who are admitted for normal vaginal delivery.

**Exclusion criteria**

1. High risk pregnancy such as multiple pregnancy, moderate and severe PIH, Rh incompatibility, elderly primigravida
2. Women who are undergoing preterm delivery, elective and emergency Caesarean section. Women who are going to other hospital for delivery
3. Mother those who are all attended childbirth education classes outside hospital.

**Description of intervention**

The researcher prepared video assisted teaching after referring literature and in consultation with subject experts. The video assisted teaching consists of childbirth. preparation classes it includes physical and psychological preparation, maternal nutrition, general measures followed during last trimester of pregnancy, breathing techniques, onset of labour, signs of labour, stages of labour and supportive measures during labour like back massage, shoulder massage and foot massage and position changes was displayed to primigravida women for 30 mints at the antenatal OPD. The doubts regarding the video content raised by the couples and family were clarified.

**Development and description of the tools**

**Section A:** Demographic and clinical variables

**Section B:** Modified Labour coping scale



**Section C: Modified QACE (questionnaire for assessing childbirth experience)**

The tool has been developed after extensive review of literature, internet search and discussion with experts.

**Validity of the tool**

The prepared tool was submitted to experts in the field of obstetrical and gynecological nursing, the suggestions were included.

**Reliability of the tool**

Reliability of the tool was assessed by using inter rater method and cronbach alpha method. Coping skill score reliability value was  $r = 0.81$  and childbirth experience reliability value was  $r = 0.85$ . These correlation coefficients were very high and it is good tool for assessing Effectiveness of child birth preparation classes on maternal coping skill and child birth experience among primigravida women.

**Feasibility of the study**

The pilot study was conducted in the Antenatal OPD and Labor room and III south at KMCH. The investigator obtained permission from the concerned authority prior to the pilot study. Study was conducted with 6 samples by using non probability purposive sampling technique and these samples are not included in the main study. The data was analyzed by using descriptive and inferential statistics it was found to have feasibility for conducting main study.

**Procedure for data collection**

The study was conducted at Obstetrics and Gynaecology unit in Kovai Medical Center and Hospital Coimbatore. The data was collected for the period of 6 weeks, before conducting the study, written permission was obtained from the ethics committee. The purpose of the study was explained to the primigravida women prior to the study. The samples were interviewed and those who met the inclusion criteria were selected by using nonprobability purposive sampling technique. The investigator was introduced about the study and rapport was established. The first 2 weeks, the investigator collected demographic and clinical data of mother in the control group. Those who are receiving routine care and education. Followed that post test was conducted while mother coming for normal vaginal delivery in labour room to assess the coping skill and childbirth experience. In experimental group, after collecting the demographic and clinical data, the Video assisted childbirth preparation classes was taken to the primigravida women by using compact disc and laptop for about 30 minutes. 3-4 primigravida women were attended per day. The effectiveness was assessed by conducting post-test while the mother coming for normal vaginal delivery, by using modified labour coping scale and modified Dr.Dencker QACE self-administered questionnaire.

## Data analysis and interpretation

Table 1: Distribution of respondents according to Demographic variables.

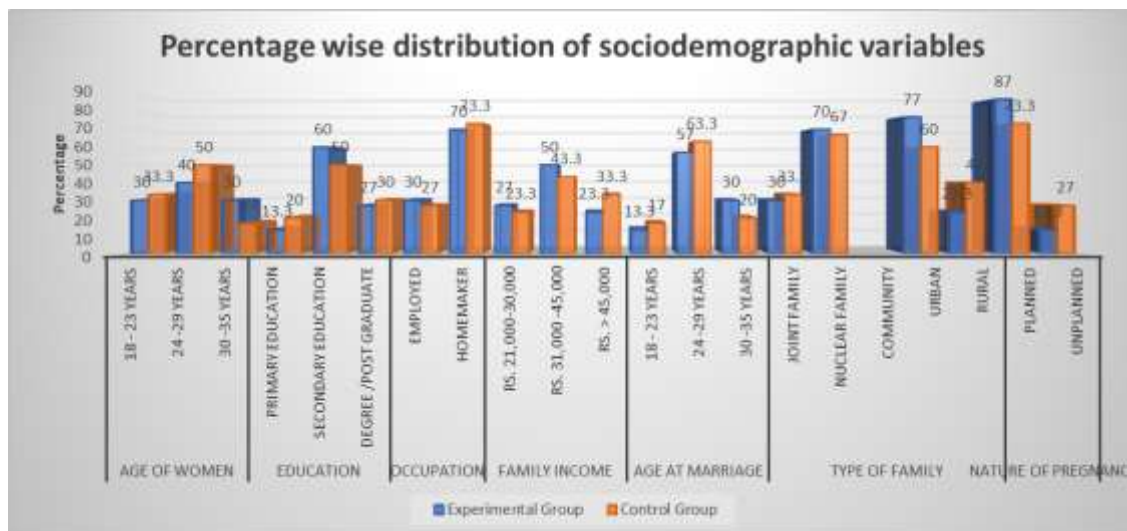


Table 1: Posttest level of childbirth experience scores among primigravida women

Category	Experimental		Control	
	f	%	f	%
Not so much pleasant experience	0	0	12	40
In part pleasant experience	19	63.3	18	60
Totally pleasant experience	11	37	0	0
Total	30	100	30	100

Table 1 shows that the posttest level of childbirth experience scores among primigravida women. In experimental group, 19(63.3%) of them had in part pleasant experience and 11(37%) of them had totally pleasant experience. In control group, 12(40%) of women had Not so much pleasant experience, 18(60%) of women had in part pleasant experience.

**Table 2: Comparison of maternal Coping skill and childbirth experience scores of experimental and control group.**

N=60

Primigravida women	Experimental		Control		Mean Difference	Independent 't'- test
	Mean	SD	Mean	S D		
60	56.7	16.0	38.3	8.2	18.37	t=5.61***

P < 0.001 highly significant.

This table shows that the independent 't'-test was calculated to analyses the comparison between experimental and control group scores of maternal coping skill among primigravida women. The independent 't'-test value was 5.61. The result shows there was a highly significant relationship between child birth preparation classes and maternal coping skill among primigravida women.

**Table 3: Comparison of Childbirth experience between experimental and control group.**

N=60

Primigravida women	Experimental		Control		Mean Difference	Independent 't'- test
	Mean	SD	Mean	SD		
60	61.3	11.88	43.2	9.15	17.83	t=6.51***

p<0.001 highly significant.

This table 3 shows that the independent 't'-test was calculated to analyses comparison between experimental and control group scores of child birth experience among primigravida women. The independent 't'-test value was 6.51. Result shows there was a highly significant relationship between child birth preparation classes and child birth experience among primigravida women.

**Table 4: Association between coping skill score of primigravida women with their selected demographic and clinical variables (experimental).**

N=30

S. No	Demographic variables	Coping skill score				Table value
		Coping		Coping well		
		f	%	f	%	
1.	<b>Age</b>					$\chi^2=6.47$ <b>P&lt;0.05*</b> (S)
	a) 18 - 23 years	7	78	2	22.2	
	b) 24 -29 years	8	67	4	33.3	
	c) 30 -35 years	2	22.2	7	78	
2.	<b>Education</b>					$\chi^2=6.50$ <b>P&lt;0.05*</b> (S)
	a) Primary Education	4	100	0	0	
	b) Secondary Education	11	61.1	7	39	
	c) Degree /post graduate	2	25	6	75	
3.	<b>Type of family</b>					$\chi^2=6.21$ <b>P&lt;0.01**</b> (S)
	a) Joint family	2	22.2	7	77.7	
	b) Nuclear family	15	71.4	6	28.5	

\*-P<0.05, significant and \*\*-P<0.01, and \*\*\*-P<0.001, highly significant, NS – Not significant, S – Significant.

The above table showed that there was a significant association between the Age, Education, and Type of family with their maternal coping skill. There was no significant association between the Occupations, Family income, Age at marriage, Community, Nature of pregnancy, Weeks of gestation during labor preparation class, Weeks of gestation at the time of delivery with their maternal coping skill.



**Table 5: Association between coping skill score of primigravida women with their selected demographic and clinical variables (control).**

N= 30

S. No	Demographic variables	Coping skill score				$\chi^2$	Table value
		Not coping well		Coping			
		f	%	f	%		
1.	<b>Age</b> a) 18 - 23 years b) 24 -29 years c) 30 -35 years	5 3 0	50 20 0	5 1 2	50 80 100	4.94	$\chi^2=4.94$ (NS)
2.	<b>Education</b> a) Primary Education b) Secondary Education c) Degree /post graduate	3 5 0	50 33.3 0	3 1 0	50 67 100	5.28	$\chi^2= 5.28$ (NS)
3.	<b>Occupation</b> a) Employed b) Homemaker	4 4	50 18.1	4 1	50 81.8	3.03	$\chi^2=4.94$ (NS)

NS – Not significant

The above table showed that there was no association between the age, education, occupation, family income, age at marriage, type of family, community, nature of pregnancy, weeks of gestation during labour preparation classes, weeks of gestation at the time of delivery with their maternal coping skill.

**Table 6: Association between childbirth experience score of primigravida women with their selected demographic and clinical variables (Experimental).**

N=30

S. No	Demographic variables	Child birth experience score				Chi-square test
		In part		totally		
		f	%	f	%	
1.	<b>Age</b> a) 18 - 23 years b) 24 -29 years c) 30 -35 year	8 9 2	55. 5 75 22.2	1 3 7	44.4 25 78	$\chi^2=9.78$ <b>P&lt;0.01</b> (S)
2.	<b>Education</b> a) Primary Education b) Secondary Education c) Degree /post graduate	4 1 3 2	100 72.2 25	0 5 6	0 27.7 75	$\chi^2=7.99$ <b>P&lt;0.05</b> (S)
3.	<b>Occupation</b> a) Employed b) Homemaker	3 1 6	33.3 76.1	6 5	67 23.8	$\chi^2=4.99$ <b>P&lt;0.05*</b> (S)

\*-P<0.05, significant and \*\*-P<0.01, and \*\*\*-P<0.001, highly significant, NS – Not significant, S – Significant.

The above table showed that there was a significant association between the Age, Education, and Occupation with their child birth experience. There was no significant association between the Family income, Age at marriage, Type of family, Community, Nature of pregnancy, Weeks of gestation during labour preparation classes, Weeks of gestation at the time of delivery with their child birth experience.

**Table 10: Association between childbirth experience score of primigravida women with their selected demographic and clinical variables (control).**

N=30

S. No	Demographic variables	Child birth Experience Score				Table value
		Not so much		In part		
		f	%	f	%	
1.	<b>Age</b>					$\chi^2=1.17$ (NS)
	a) 18 - 23 years	4	40	6	60	
	b) 24 -29 years	6	40	9	60	
	c) 30 -35 years	2	40	3	60	
2.	<b>Education</b>					$\chi^2=2.96$ (NS)
	a) Primary Education	2	33.3	4	66.6	
	b) Secondary Education	7	33.3	8	53.3	
	c) Degree /post graduate	3	33.3	6	67	
3.	<b>Occupation</b>					$\chi^2=0.33$ (NS)
	a) Employed	5	62.5	3	37.5	
	b) Homemaker	7	31.8	15	68.1	
4.	<b>Family income</b>					$\chi^2=3.88$ (NS)
	a) Rs. 21,000-30,000	2	28.5	5	71.4	
	b) Rs. 31,000 -45,000	6	46.1	7	53.8	
	c) Rs. > 45,000	4	40	6	60	

NS – Not significant

The above table showed that there was no significant association between the age, education, occupation, family income, age at marriage, type of family, community, nature of pregnancy, weeks of gestation during labour preparation classes, weeks of gestation at the time of delivery with their childbirth experience.

## Dicussion

The posttest score after the childbirth preparation classes on maternal coping skill and childbirth experience among primigravida women. In Experimental group 17 (57%) of women were coping, 13(43.3%) women were coping well. In control group, 8(27%) of women were not coping, 22(73.3%) of women were coping. In the experimental group, 19(63.3%) of them had in part pleasant experience and 11(37%) of them had totally pleasant experience. In control group, 12(40%) of women had Not so much pleasant experience, 18(60%) of women had in part pleasant experience.

This study was conducted in KMCH Hospital. The population for this study was selected from antenatal OPD and labour room. Non-probability purposive sampling technique was adopted to select the samples. There were 60 primigravida women were selected for the study with the pre-determined criteria for inclusion. The present study was aimed to assess the effectiveness of childbirth preparation classes on maternal coping skill and childbirth experience among primigravida women.

The majority of the primigravida women coping during delivery. Video assisted teaching had proved that maternal coping skill & childbirth experience score has improved among primigravida women those underwent childbirth preparation classes.

## Litmitations

- ❖ The investigator faced difficulty in collecting the related literature of childbirth preparation classes as the studies conducted in India was limited.
- ❖ The mothers felt it tedious to answer 30 + 10 items of the questionnaire as it took about 30-40 minutes to complete.
- ❖ The study was limited to a sample of 60 participants.
- ❖ The study was conducted only at KMCH, Coimbatore.

## Recommendations

- ❖ The video assisted teaching can be played in the waiting room of the antenatal clinic for the mothers to gain knowledge on childbirth preparation.
- ❖ Similar types of video-CDs can be prepared in various aspects of obstetrics including antenatal, postnatal and newborn care. The study can be replicated with a large number of samples for better generalization.
- ❖ A similar study can be carried out to reduce the fear of normal vaginal delivery.
- ❖ Experimental study can be conducted to find the effectiveness of teaching on the labour outcome.



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