

# Effect of Sitting and Left lateral Position on Labour Pain, During First Stage of Labour

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*“Birthing is natural; the body is designed for it, We’ll make it as natural as possible”*

Morrison

**Abstract - A comparative study to assess the effect of sitting and left lateral position on labour pain, during first stage of labour, among mothers admitted to the labour room, at Government Primary Health Center, Tamilnadu. The objectives of the studies are**

**To assess the before and on position intensity of labor pain score in first stage of labor between the sitting and left lateral position**

**To assess the effect of sitting position and left lateral on first stage labor pain**

**To compare the pain scores in left lateral position and sitting positions.**

**To determine the mean reduction during first stage labour pain with selected demographic variables**

**METHODOLOGY:** Quantitative research approach with pre- experimental comparative design was used. 60antenatal mothers (30 antenatal mother for group I and 30 antenatal mothers for group II) who met inclusion criteria were selected by Simple random technique. Pre intervention labour pain was assessed by using behavioral pain assessment scale. Administered sitting position to group I and left lateral position to group II on reduction of labour pain during first stage labour. On-position pain was assessed.

**RESULT:** The researcher found that both sitting and left lateral position significantly reduce the labour pain, when comparing two position sitting is more effective in reducing the labour pain than left lateral position.

## INTRODUCTION

Pregnancy, childbirth is events that touch nearly every aspect of the human experience; biologic, psychological, social and cultural. Individual adaptation to childbearing on each of these levels may be quite different, depending on the age, health, socioeconomic status and cultural background of the woman and her family. These difference results in a wide range of individual and family needs for

information and assistance during the childbearing year. (Simpson, 2008)

Pain impulses during first stage of labour are transmitted via the T11 and T12 spinal nervesegments and accessory lower thoracic and upper lumbar sympathetic nerves. There are many types of response to pain. The most frequent physiological manifestation are increased pulses, respiratory rate dilated pupils, increased blood pressure and muscle tension. Changing positions, and moving around during labor and birth, offers several benefits. Some are obvious to the motherin labor, increased comfort / reduced pain, distraction, and an enhanced sense of control: merely having something active to do can relieve the sense of being overwhelmed and out of control.

So far as the humanization of childbirth is concerned, there is an urgent need to identify evidence-based practices that contribute towards both the well-being of the mother and the fetus. The aim of this study is, therefore, to evaluate the influence of the sitting position and left lateral position adopted by parous women during labor, in terms of pain and satisfaction with the positionadopted.

## NEED FOR THE STUDY

The investigator, during her clinical experience noticed that a considerable number of women in labor room were struggling with severe labor pain and were not receiving any help measures for their comfort and pain relief. This would increase the pain and anxiety and thus decrease the progress of labor. Sometimes, resisting the labour pains would lead to maternal and fetal distress. Positioning during labor as a pain-relieving measure is a simple, low cost and effective method as compared to administration of medication that could adversely affect the fetus and the mother. Hence, there is a need for assessing the relationship between the different parturient positions and the pain intensity felt by the mother during the first stage of

labor. This in turn would help in providing better care during intrapartum period for the mothers to have safe childbirth experience. Hence, the researcher took this topic to answer this research problem.

### STATEMENT OF THE PROBLEM

A comparative study to assess the effect of sitting and left lateral position on labour pain, during first stage of labour, among mothers admitted to the labour room, at Government Primary Health Center, Tamilnadu.

### OBJECTIVES

1. To assess the before and on position intensity of labor pain score in first stage of labor between the sitting and left lateral position
2. To assess the effect of sitting position on first stage labor pain
3. To assess the effect of left lateral position on first stage labor pain
4. To compare the pain scores in left lateral position and sitting positions.

### HYPOTHESIS

H1: There is significant difference in the before and on position intensity of labour pain in the sitting position.

H2: There is significant difference in the before and on position intensity of labour pain in the left lateral position.

H3: There is significant difference in labour pain intensity between the sitting and left lateral position.

### RESEARCH METHODOLOGY

Approach-Quantitative research approach  
Design-Pre-Experimental comparative design

Variables-Dependent variable was labour pain intensity and independent variable was parturient position.

Setting- The study was conducted at Primary Health Center, Perungattur, Cheyyar Taluk, Thiruvannmalai District, and Tamilnadu. Permission was obtained from Deputy Director of Health Service, District Public Health Nurse and Block Development Officer of Cheyyar Taluk, Thiruvannmalai District.

Sample size & Sampling technique - 60mothers (30 in sitting & 30 in left lateral position) with first stage of labour (3-7cm cervical dilatation) were selected by using Simple Random Sampling Technique

Criteria for selection of sample

Inclusion criteria

- Willing antenatal mothers
- Antenatal mothers with first stage labour (3-7cm cervical dilatation)
- Antenatal mothers who can able understand & read tamil

Exclusion criteria

- Antenatal mothers with medical and psychological problems
- Antenatal mothers with bad obstetrical history

Description of the tool

Part-A-Demographic and clinical variables

Part-B-The tool used in this study was Standardized Behavioral Pain Assessment Rating Scale for assessing pain intensity and observation checklist. The reliability of the tool was checked by using inter-rater reliability technique ( $r=0.9$ ) and it was found that the tool was reliable.

### BEHAVIORAL PAIN ASSESSMENT RATING SCALE

CATEGORIES	SCORING		
	0	1	2
FACE	No particular expression or smile, disinterested	Occasional grimace or frown	Frequent to constant frown, clenched jaw, quivering chin
LEGS	Relaxed	Uneasy, restless, tense	Kicking or legs drawn up
ACTIVITY	Lying quietly	Squirming	Arched, rigid or jerky
CRY	No crying	Moans or whimpers, occasional complaints	Crying steadily or sob, frequent complaints
CONSOLABILITY	Comfort and relaxed	Reassured by occasional touching, talking	Difficult to comfort

Total Score 10

Mild pain	Moderate pain	Severe pain
0-3	4-7	8-10

**DATA COLLECTION PROCEDURE**

The researcher explained the intervention to the mother and informed consent was taken. 60 mothers (30 for sitting position and 30 for left lateral position) were selected for the study using simple random sampling techniques. Per day 3-4mothers were selected. Selected antenatal mothers were day randomized for Sitting position(Monday ,Wednesday & Friday) and left lateral position( Tuesday, Thursday & Saturday).Demographic and clinical variables

assessed by structured questioner,Cervical dilatation was assessed, intervention started with 3cm cervical dilatation.The before position intensity of labour Pain was assessed by using Behavioral Pain Assessment Rating Scale.During position intensity of labour pain was assessed and fetal heart rate monitored. Vital signs monitored and 30 minutes relaxation given.Repeated the intervention upto 7cm cervical dilatation. Before and on position pain score was taken for analysis.

**RESULT & DISCUSSION**

Assessment of intensity of labour pain before and on sitting position

Labour Pain Intensity	Mild (0 – 3)		Moderate (4 – 6)		Severe (7 – 10)	
	No.	%	No.	%	No.	%
<b>Before Position</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3.33</b>	<b>29</b>	<b>96.67</b>
<b>On Position</b>	<b>2</b>	<b>6.67</b>	<b>26</b>	<b>86.67</b>	<b>2</b>	<b>6.67</b>

Above table shows among 30 antenatal mothers, 29(96.67%) antenatal mothers had the severe pain, 1 (3.33%) antenatal mother had the moderate pain when not in sitting position. Most of them had moderate pain

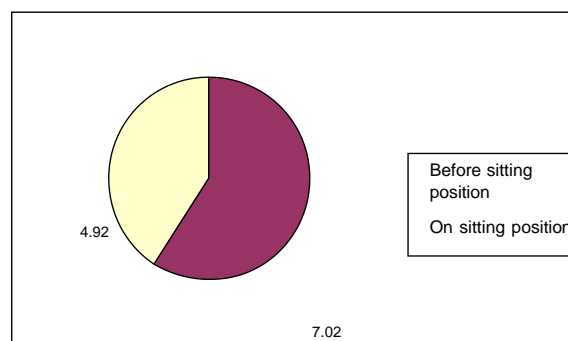
26(86.67%), 2(6.67%) antenatal mother had the severe and mild pain when the antenatal mothers in sitting position.

Assessment of intensity of labour pain before and on left lateral position

Labour Pain Intensity	Mild (0 – 3)		Moderate (4 – 6)		Severe (7 – 10)	
	No.	%	No.	%	No.	%
<b>Before Position</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>16.67</b>	<b>25</b>	<b>83.33</b>
<b>On Position</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>66.67</b>	<b>10</b>	<b>33.33</b>

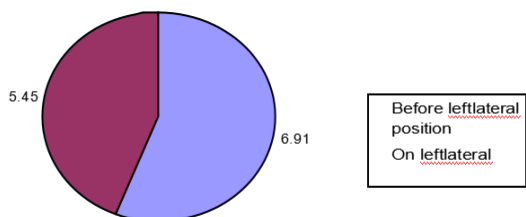
Above table shows that about 25(83.33%) antenatal mothers had the severe pain, 5 (16.67%) antenatal mothers had the moderate pain when not in left lateral position. Most 20(66.67%) antenatal mothers had moderate pain, 10(33.33%) antenatal mothers had the severe pain in left lateral position.

Comparison of mean and standard deviation of intensity of labour pain before and on sitting position



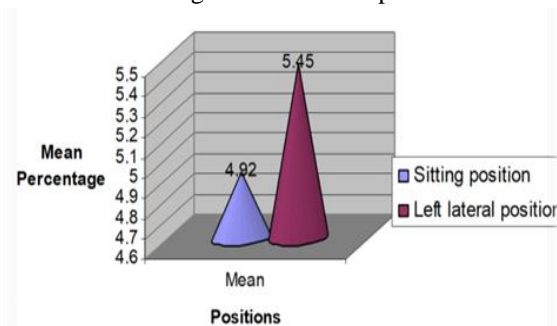
Above figure shows the mean effect of sitting position on labour pain intensity. It was found that before position the mean effect pain was  $7.02 \pm 0.81$  and on position the mean effect pain was  $4.92 \pm 0.81$ , ( $p < 0.001$ ;  $t = 15.307$ ). There was statistically significant difference in the before and on position on labour pain, which revealed that sitting position was effective during first stage of labour to reduce labour pain.

Comparison of mean and standard deviation of intensity of labour pain before and on left lateral position



This depicts the mean pain effect of left lateral position on intensity of labour pain. It was found that before position the mean pain effect was  $6.91 \pm 0.83$  and the mean labour pain effect on position was  $5.45 \pm 0.83$ , ( $p < 0.001$ ;  $t = 9.464$ ). There was statistically significant difference in the before and on position on labour pain, which revealed that left lateral position was effective during first stage of labour to reduce labour pain.

Comparison of On Position Intensity of labour pain between the sitting and left lateral position



Above figure depicts that comparison of On Position Intensity of labour pain between the sitting and left lateral position. Those mean labour pain effect of sitting position was  $4.92 \pm 0.81$  and mean labour pain effect of left lateral position was  $5.45 \pm 0.83$  ( $p < 0.05$ ). There was a statistically significant difference in reducing the labour pain between sitting and left

lateral position which revealed that both the sitting and left lateral position were effective in reducing the intensity of labour pain. When comparing the effectiveness, the sitting position is effective than the left lateral position.

### CONCLUSION

It was observed that there was on reduction in intensity of labour pain, both sitting and left lateral positions. But there was statistically significant difference found in reduction of intensity of labour pain in sitting position than left lateral position.

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