OPEN ACCESS
Global Journal of Research in Medical Sciences
ISSN: 2583-3960 (Online)
Volume 05 | Issue 05 | Sept.-Oct. | 2025
Journal homepage: https://gjrpublication.com/gjrms/
Research Article

# A Quasi Experimental study: Assess the effectiveness of Lamaze Therapy on Pain During 1st stage of labour among primi gravida mothers at Apollo Hospitals, Visakhapatnam

*Ms. Tirumala [1], Ms. Carunia Jeyasutha [2], Ms. Raghaveni.R [3], Dr. Vidya Konduri [4]

[1]Nurse Educator, Apollo Hospitals, Visakhapatnam
[2]ANS, Apollo BGS Hospitals
[3]CNO, Apollo Hospitals, Visakhapatnam
[4]Obstetrician and Gynecologist, Apollo Hospitals, Visakhapatnam

**DOI: 10.5281/zenodo.17242372** **Submission Date: 21 Aug. 2025 | Published Date: 01 Oct. 2025**

***Corresponding author: Ms. Tirumala***
*Nurse Educator, Apollo Hospitals, Visakhapatnam*

## Abstract
*Pain management during labour is a critical aspect of maternal healthcare, influencing the birthing experience and maternal well-being[1]. The study assesses the effectiveness of Lamaze therapy in reducing pain during the first stage of labour among prime gravida mothers at Apollo Hospitals, Visakhapatnam. The research employs a quasi-experimental design with a control and experimental group, measuring pain levels before and after the application of Lamaze therapy using the Wong-Baker Faces Pain Scale. The findings indicate a significant reduction in pain levels among the experimental group compared to the control group. The study concludes that Lamaze therapy is an effective, non-pharmacological pain management technique that can be integrated into clinical practice to enhance maternal comfort during childbirth.*

**Keywords:** *Lamaze therapy, labour pain, prime gravida mothers, childbirth, maternal healthcare, breathing techniques.*

## Introduction
**"The aim of the wise is not to secure pleasure, but to avoid pain".**
**(Aristotle).**

Having a baby and feeling a new life developing inside is an amazing, lifechanging experience for pregnant women, even though they may not always feel their best along the way. Pregnancy can be different from woman to woman, and even for the same mother from one pregnancy to the next. Some pregnancy symptoms last for several weeks or months, while other discomforts are temporary or don't affect every woman who is expecting. Pregnant women commonly worry about the pain they will experience during labour and childbirth. Pain during labour is caused primarily by uterine muscle contraction and somewhat by pressure on the cervix. This pain manifests itself as cramping in the abdomen, groin, and back, as well as a tired, achy feeling all over. Some women experience pain in their sides or their or thighs as well. Other causes of pain during labour include pressure on the bladder and bowels by the baby's head and the stretching of the birth canal and vagina[2].

Although labour is often thought of as one of the most painful events in human experience, it ranges widely from woman to woman and even from pregnancy to pregnancy. Women experience labour pain differently, for some, it resembles menstrual cramps; for others, severe pressure in the lower abdomen; and for others, extremely strong waves that feel like diarrheal cramps. In addition, the first-time mothersare most likely to give their pain a higher rating than woman who have had babies before[3].

A woman who is fearful of pain will describe the sensation as much more intense and painful than a woman who is not fearful of the pain. It is not that the pain and pressures of childbirth do not exist for the confident woman; she simply interprets the sensations as more than just a pain. She accepts it and looks forward to the miracle of the birth of the child[4].

The major factor contributing to a positive and favourable over all evaluation of childbirth is the women's perception of being able to maintain control during labour and delivery i.e., control of pain perception, control over emotion and actions and most frequently control in being an active participant[5].

The Fear Tension Pain theory of pain management postulated that the fear a woman experiences during labour causes her body to react in ways that increase the pain. The originator of this theory, Dr. Dick Read, hypothesized labour was not inherently painful. He believed that the pain in labour was largely due to the fear of labour prevalent in the culture. He thought that the birth canal could be obstructed by this fear. As the labour becomes dysfunctional, the pain increases and the mother`s fear of what is happening increases and so increases the tension she feels and increases the pain which then cycles back to increase her fear. According to the Fear Tension Pain theory of childbirth, the pain of labour can be lessened by stopping the cycle at any point. To stop the cycle at the fear point, experts recommended preparing for labour through education, birth planning and mental/emotional work[6].

Different approaches to childbirth preparation stress a number of varying techniques for using them as a tool to help the woman maintain control through contractions. It is found that a sense of control during delivery was related to positive perceptions of birth experience.

Lamaze childbirth preparation classes teach the majority of these techniques. Relaxation is thought to increase pain tolerance through a number of mechanisms, include the reduction of anxiety, decreased catecholamine response, increased uterine blood flow, and decreased muscle tension**.** Relaxation is most effective as a pain management strategy when learned and practiced in advance of the labour experience. Relaxation, breathing techniques, positioning/movement, massage, hydrotherapy, hot/cold therapy, music, guided imagery, acupressure, and aromatherapy are some self-help comfort measures women may initiate during labour to achieve an effective coping level for their labour experience[7]**.**

Presently wide arrays of non-pharmacological pain relief measures, as well as pharmacological interventions are available for women in labour. Lamaze method is a non-pharmacological method by which an expectant mother is prepared for child birth by education, psychological and physical conditioning and breathing exercises, also called psycho prophylaxis. It is a method of child birth in which the mother is prepared psychologically and physically to give birth without the use of pain relieving drugs. It is developed in the 1940s by French obstetrician Dr.Fernandez Lamaze as an alternative to the use of medical intervention during child birth. Dr.Lamaze was influenced by Soviet childbirth practices, which involved and relaxation techniques under the supervision of midwife[8].

Relaxation techniques help to keep the mothers body tension free to avoid excessive pain and discomfort. Relaxation techniques must be practiced before labour to be effective during labour. There are different relaxation techniques such as hypnosis, yoga, meditation, walking, massage, or counter pressure, changing position, taking a bath or shower, by counting or performing an activity that keeps your mind otherwise occupied[9].

## Material and methods:

The present study was aimed at the effectiveness of Lamaze therapy on pain among prime gravida mothers during first stage of labour at Apollo Hospital, Visakhapatnam. This chapter presents the methodology adopted by the researcher for the study. It includes the research approach, the setting, population, sample & sample technique, selection of tool, development & description of tool, content validity, reliability, pilot study, data collection procedure & plan for analysis. The type of research approach employed is quantitative approach. The approach choice of the research approach depends upon the purpose of the research study which was undertaken the present study was intended to evaluate the effectiveness of Lamaze therapy on pain among prime gravida mothers during first stage of labour at Apollo Hospital, Visakhapatnam district, Andhra Pradesh. The research design employed for the study is Quasi experimental Non - randomized control group design.

***$O_1$ - Pre test***
***X - Intervention***
***$O_2$ - Post test***

## Research Variables:

**Dependent Variable:** Pain during first stage of labour in prime gravida mothers.
**Independent Variable:** Lamaze therapy to relieve pain during first stage of labour in prime gravida mothers.
**Demographic Variable:** It refers to age, religion, education, occupation, and income status of the family, type of family, exercise during antenatal period, diet, and previous history of abdominal surgery.

**Inclusion Criteria:** Criteria that included are;

- Primi mothers who were in the active phase of first stage of labor (5 to 7cm of cervical dilatation)
- Who were in the age group of 18-35 years
- Who were not having any Obstetric and medical complications
- Who were willing to participate in the study
- Who can understand and speak Telugu.

**Exclusion Criteria:** Criteria that are excluded from the study are:

- Pre-term labour initiates before completing 37 weeks
- Mothers who cannot understand and read Telugu
- Mothers with anxiety, hypertension, IUGR Mothers with a previous history of abdominal surgery.

## Description of the Tool:

The tool consists of the following sections: -

- **Tool A: Demographic Data**: It consist of items on Mother's Age, Religion, Education, Occupation, Type of family, Income of the family, Diet, Exercise during antenatal period, History of abdominal surgery.
- **Tool B:** Wong-Baker faces pain ratingscale to assess the level of pain.
- The scale shows a series of faces ranging from 0-10. 0 is for no pain 1-3 Mild Pain, 4-6 Moderate Pain, 7-9 Severe Pain, 10- Worst Pain. The subject was instructed to indicate the pain intensity, which they experienced at that time by pointing to the pain level score.
- The pain intensity was categorized as no pain, mild pain, moderate pain, severe pain, worst pain.

### The range of pain score is as follows:

| SL.NO | SCORING | LEVEL OF PAIN |
|---|---|---|
| 1. | 0 | No pain |
| 2. | 1-3 | Mild pain |
| 3. | 4-6 | Moderate pain |
| 4. | 7-9 | Severe pain |
| 5. | 10 | Worst pain |

## Procedure methodology:

The study was conducted at Apollo Hospital; Visakhapatnam which is a 350 bedded hospital. It has a separate block for Obstetrics and Gynaecological Nursing. The labour ward consists of a waiting room, a 5 bedded first stage of labour room. Using Non probability purposive sampling technique Prime gravida mothers at first stage of labour with pain are taken as sample with a total Sample size was 60 i.e., (30- Experimental group, 30 - Control group).

The present study was planned primarily to determine the pain intensity before and after the administration of Lamaze therapy, as measured by the Wong Baker Face Pain Scale. The investigator selected it by review of literature & prepared it in order to obtain the necessary information. The investigator developed the tool after consulting the subject experts and reviewing the literature on relevant topics. The tools selected for the study was demographic data, Wong Baker Face Pain Scale & the Lamaze therapy (breathing exercises).

## Results:

The term analysis refers to computation of certain measures along with searching for patterns of relationship exist among data group. Analysis of the data involves a number of closely related operations which are performed with the purpose of summarizing the collected data, organizing in such a manner that the answers to the research questions can be obtained. Descriptive and Inferential statistics were used for the study & Descriptive statistical procedures were frequency and inferential statistical procedures such as mean, standard deviation t-test and chi square. The results were presented as tables and graphs.

**TABLE – 1**

**Frequency and Percentage Distribution of Primi Gravida Mothers of First Stage of Labour with Selected Demographic Variables.**

| S.NO | Demographic Variables | Experimental group | | Control group | |
|---|---|---|---|---|---|
| | | Frequency | Percentage | Frequency | Percentage |
| 1 | **AGE** | | | | |
| | a.18 – 21 | 5 | 17% | 3 | 10% |
| | b..22 – 25 | 18 | 60% | 23 | 77% |
| | c.26 – 29 | 7 | 23% | 4 | 13% |
| | d. Above 30 | 0 | 0% | 0 | 0% |
| 2 | **Religion** | | | | |
| | Christian | 3 | 10% | 11 | 37% |
| | Hindu | 25 | 83% | 17 | 57% |
| | Muslim | 2 | 7% | 2 | 7% |
| | Others | 0 | 0% | 0 | 0% |
| 3 | **Educational Qualifications** | | | | |
| | Secondary education | 15 | 50% | 12 | 40% |
| | Higher secondary education | 15 | 50% | 18 | 60% |
| | Diploma/ Graduation | 0 | 0% | 0 | 0% |
| | d. Illiterate | 0 | 0% | 0 | 0% |
| 4 | **Occupation of the mother** | | | | |
| | Employee | 0 | 0% | 0 | 0% |
| | Self-Employee | 13 | 43% | 9 | 30% |
| | House Wife | 17 | 57% | 21 | 70% |
| 5 | **Family income per month** | | | | |
| | 70,000-1,00,000 | 21 | 70% | 24 | 80% |
| | 50,000-70,000 | 9 | 30% | 6 | 20% |
| | Below 50,000 | 0 | 0% | 0 | 0% |
| 6 | **Type of family** | | | | |
| | Nuclear | 25 | 83% | 26 | 87% |
| | Joint | 5 | 17% | 4 | 13% |
| 7 | **Dietary habits of the mother** | | | | |
| | Vegetarian | 8 | 27% | 2 | 7% |
| | b. Mixed | 22 | 73% | 28 | 93% |
| 8 | **Exercise during antenatal period** | | | | |
| | Good | 3 | 10% | 7 | 23% |
| | Poor | 25 | 83% | 16 | 54% |
| | Absent | 2 | 7% | 7 | 23% |
| 9 | **Any previous history of abdominal surgery** | | | | |
| | Yes | 0 | 0% | 0 | 0% |
| | No | 30 | 100% | 30 | 100% |

## Interpretation:

With regards to age, in experimental group, majority 18(60%) of the participants are between 22-25 years of age and the least 5 (16.7%) of the participants are 18-21 years of age. In control group, majority 20(66.8%) are 22-25years of age & least 5(16.6%) are 18-21 years & 26-29 years of age.

With regards to religion, in experimental group, majority 25(83%) are Hindus, and the least 2(7%) are Muslims. In the control group, 17(57%) are Hindus & 2(7%) are Muslims. With regards to education, in experimental group, 15 (50%) are higher secondary education and 15 (50%) are secondary education. In control group, 18 (60%) are higher secondary education and 12 (40%) are secondary education. With regards to occupation of the mothers, in experimental group, 17 (57%) are house wife and 13 (43%) are self-employee. In control group, 21(70%) are house wife and 9 (30%) are self-employee. With regards to family income per annum, in experimental group, 21(70%) have70, 000-1, 00, 000 and 9(30%) have 50,000-70,000. In control group, 24(80%) have 70, 000-1, 00, 000 and 6(20%) have 50, 000- 70, 000. With regards to type of family, in experimental group, 25(83%) belongs to nuclear family & 5(17%) belongs to joint family. In control group, 26(87%) belongs to nuclear family and 4(13%) belongs to joint family.

Regarding the dietary habits of the mother, in experimental group, 22(73%) are mixed & 8(27%) are vegetarian. In the control group, 28(93%) are mixed and 2(7%) are vegetarian. With regards to exercise during antenatal period, in experimental group, majority 25 (83%) are poor in doing exercise, and least 2(7%) are doing no exercise. In control group, majority 16(54%) are poor in doing exercise, 7(23%) are good in doing exercise, and 7(23%) are doing no exercise.

With regards to previous history of abdominal surgery, neither in experimental group, 30(100%), nor the control group 30(100%) has no previous history of abdominal surgery.

## Table-2

**Frequency and Percentage Distribution of Prime Gravida Mothers During First Stage of Labour according to their Pain Level Before and After Lamaze Therapy on Experimental Group.**

**N=60**

| | Pain level | Pre-test | | Post-Test | |
|---|---|---|---|---|---|
| | | F | % | F | % |
| Experimental Group | No pain | 0 | 0% | 0 | 0% |
| | Mild Pain | 0 | 0% | 0 | 0% |
| | Moderate Pain | 6 | 20% | 26 | 87% |
| | Severe Pain | 20 | 67% | 4 | 13% |
| | Worst Paint | 4 | 13% | 0 | 0% |
| Control Group | No pain | 0 | 0% | 0 | 0% |
| | Mild Pain | 0 | 0% | 0 | 0% |
| | Moderate Pain | 9 | 30% | 0 | 0% |
| | Severe Pain | 18 | 60% | 9 | 30% |
| | Worst Pain | 3 | 10% | 21 | 70% |

Table 2 shows that the comparison of percentage of pain level scores of prime gravida mothers of first stage of labour in pre-test of Experimental group; 20(67%) had severe pain, 6(20%) had moderate pain and 4(13%) had worst pain; in post-test, 26(87%) had moderate pain, 4(13%) had severe pain. Whereas in control group 18(60%) had severe pain, 9(30%) had moderate pain and 3(10%) had worst pain in pre-test and 21(70%) had worst pain and 9(30%) had severe pain in the post test without Lamaze therapy.

Percentage of pain level scores of prime gravida mothers of first stage of labour in pre-test of Experimental group; 20(67%) had severe pain, 6(20%) had moderate pain and 4(13%) had worst pain; in post-test, 26(87%) had moderate pain, 4(13%) had severe pain after Lamaze therapy.

In control group 18(60%) had severe pain, 9(30%) had moderate pain and 3(10%) had worst pain in pre-test and 21(70%) had worst pain and 9(30%) had severe pain in post-test without Lamaze therapy.

## Table-3
**Comparison of Pre-Test and Post-Test Pain Scores in Experimental Group**

| Aspects | Scores | Mean | Standard deviation | Paired t value | Table value | DF | P Value |
|---|---|---|---|---|---|---|---|
| **Pre test** | 236 | 7.866 | 1.166 | 16.858 | 2.05 | 29 | 0.05 |
| **Post test** | 166 | 5.533 | 1.357 | | | | |

**Data in the Table- 3** illustrated that the mean post test score of experimental (5.533) was lesser than the mean pre-test score (7.866), showed that there was a significant difference between the pre-test and post-test pain level scores. The standard deviation of pre-test is 1.166 and the standard deviation of post-test is 1.357, showed that there was a significant difference between the pre-test and post-test pain level of prime gravida mothers of first stage of labour. The overall computed t value is 16.858 greater than table value 2.05, which is statistically significant at p <0.05 level. The above results revealed that there is a significant difference between the pre-test and the post test scores of prime gravida mothers of first stage of labour pain level after providing Lamaze therapy.

## Table -4
**Comparison of the Level of Pain Between Experimental and Control Group After Lamaze Therapy**

N=60

| Aspects | Mean | Standard deviation | Calculated value | Tabulated value | DF | P Value |
|---|---|---|---|---|---|---|
| **Experimental group (Post test)** | 5.533 | 1.357 | 12.858 | 2.001 | 58 | 0.05 |
| **Control group (Post test)** | 9.4 | 0.932 | | | | |

Unpaired 't' test showing the significance difference between the mean and standard deviation of post-test pain scores of prime gravida mothers of first stage of labour of experimental and control group.

The obtained 't' value 12.858 is greater than table value 2.001 at 58 DF in 0.05 level of significance. Therefore, the obtained 't' value is found to be significant. Therefore, we have sufficient evidence to conclude that experimental group had less pain than control group after Lamaze therapy. It can be concluded that the Lamaze therapy played an important role in reducing the level of pain among prime gravida mothers of first stage of labour.

## Table- 5
**Association between the Post Test Pain Score among prime gravida mothers of first stage of labour with their selected demographic variables in Experimental Group.**

***N=30***

| Items | Variables | No Pain | Mild Pain | Moderate Pain | Severe pain | Worst pain | $\chi^2$ | DF | Table value | P – value (0.05) level & Significance |
|---|---|---|---|---|---|---|---|---|---|---|
| Age of the mother (years) | 18-21 | 0 | 2 | 1 | 5 | 0 | 26.95 | 12 | 21.026 | S |
| | 22-25 | 0 | 1 | 18 | 1 | 0 | | | | |
| | 26-29 | 0 | 2 | 0 | 0 | 0 | | | | |
| | 30-35 | 0 | 0 | 0 | 0 | 0 | | | | |
| Religion | Christian | 0 | 0 | 3 | 2 | 0 | 4.544 | 12 | 21.026 | NS |
| | Hindu | 0 | 5 | 17 | 3 | 0 | | | | |
| | Muslim | 0 | 1 | 1 | 0 | 0 | | | | |
| | Others | 0 | 0 | 0 | 0 | 0 | | | | |
| Education | Primary Education | 0 | 3 | 10 | 2 | 0 | 0.380 | 12 | 21.026 | NS |
| | Secondary Education | 0 | 3 | 11 | 1 | 0 | | | | |
| | Diploma/ Graduation | 0 | 0 | 0 | 0 | 0 | | | | |
| | Illiterate | 0 | 0 | 0 | 0 | 0 | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Occupation of the mother | Employee | 0 | 0 | 0 | 0 | 0 | 7.843 | 8 | 15.507 | NS |
| | Self Employee | 0 | 0 | 13 | 0 | 0 | | | | |
| | House Wife | 0 | 6 | 8 | 3 | 0 | | | | |
| Family Income (perannum) | 70,000-1,00,000 | 0 | 3 | 17 | 1 | 0 | 4.482 | 8 | 15.507 | NS |
| | 50,000-70,000 | 0 | 3 | 4 | 2 | 0 | | | | |
| | Below 50,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| Type of Family | Nuclear | 0 | 3 | 19 | 3 | 0 | 6.17 | 4 | 9.488 | NS |
| | Joint | 0 | 3 | 2 | 0 | 0 | | | | |
| Dietary habits of the mother | Vegetarian | 0 | 1 | 7 | 0 | 0 | 1.879 | 8 | 15.507 | NS |
| | Mixed | 0 | 5 | 14 | 3 | 0 | | | | |
| Exercise during antenatal period | ` Good | 0 | 1 | 2 | 5 | 0 | 16.487 | 8 | 15.507 | S |
| | Poor | 0 | 3 | 15 | 1 | 0 | | | | |
| | Absent | 0 | 2 | 0 | 1 | 0 | | | | |
| Any previous history of abdominal surgery | Yes | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 9.488 | NS |
| | No | 0 | 6 | 21 | 3 | 0 | | | | |

*** Significant at 5% level, the result is not significant at p < 0.05.**

**Table 5** portrays that there is a statistical association between the post level of pain and the selected demographic variables such as age and exercise during antenatal period in the experimental group. There is no statistical association between the post-test level of pain and the selected demographic variables at p value 0.05 level such as, Religion, Educational qualifications, Occupation of the mother, Family income per annum, Type of family, Dietary habits of the mother, Any previous history of abdominal surgery of the mother.

## Table- 6

**Association between the Post Test Pain Score among prime gravida mothers of first stage of labour with their selected demographic variables in Control Group.**

**N=30**

| Items | Variables | No Pain | Mild Pain | Moderate Pain | Severe pain | Worst pain | □ 2 | DF | Table value | P – value (0.05) level & Significance |
|---|---|---|---|---|---|---|---|---|---|---|
| Age of the mother (years) | 18-21 | 0 | 0 | 0 | 0 | 3 | 2.049 | 12 | 21.026 | NS |
| | 22-25 | 0 | 0 | 0 | 7 | 16 | | | | |
| | 26-29 | 0 | 0 | 0 | 2 | 2 | | | | |
| | 30-35 | 0 | 0 | 0 | 0 | 0 | | | | |
| Religion | Christian | 0 | 0 | 0 | 4 | 7 | 0.933 | 12 | 21.026 | NS |
| | Hindu | 0 | 0 | 0 | 4 | 13 | | | | |
| | Muslim | 0 | 0 | 0 | 1 | 1 | | | | |
| | Others | 0 | 0 | 0 | 0 | 0 | | | | |
| Education | Primary Education | 0 | 0 | 0 | 2 | 10 | 5.79 | 12 | 21.026 | NS |
| | Secondary Education | 0 | 0 | 0 | 11 | 7 | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Diploma/ Graduation | 0 | 0 | 0 | 0 | 0 | | | | |
| | Illiterate | 0 | 0 | 0 | 0 | 0 | | | | |
| Occupation of the mother | Employee | 0 | 0 | 0 | 0 | 0 | 0.370 | 8 | 15.507 | NS |
| | Self Employee | 0 | 0 | 0 | 2 | 7 | | | | |
| | House Wife | 0 | 0 | 0 | 7 | 14 | | | | |
| Family Income (perannum) | 70,000-1,00,000 | 0 | 0 | 0 | 9 | 16 | 2.571 | 8 | 15.507 | NS |
| | 50,000-70,000 | 0 | 0 | 0 | 0 | 5 | | | | |
| | Below 50,000 | 0 | 0 | 0 | 0 | 0 | | | | |
| Type of Family | Nuclear | 0 | 0 | 0 | 7 | 19 | 0.879 | 4 | 9.488 | NS |
| | Joint | 0 | 0 | 0 | 2 | 2 | | | | |

* Significant at 5% level, the result is not significant at $p < 0.05$.

Table. 6 portrays that there is no statistical association between the post-test level of pain and the selected demographic variables such as Age, Religion, Educational qualifications, Occupation of the mother, Family income per annum, Type of family, Dietary habits of the mother, Exercise during antenatal period, Any previous history of abdominal surgery of the mother in control group.

## Discussion

This chapter deals with the discussion of the major findings with appropriate literature review, statistical analysis and findings of the study based on the objectives of the study. The aim of the present study was to evaluate the effectiveness of Lamaze therapy on pain among prime gravida mothers of first stage of labour at Apollo Hospital, Visakhapatnam.

A total of 60 prime gravida mothers of first stage of labour (30experimental group, 30-control group) were selected for the study by using convenient sampling method at Apollo Hospital, Visakhapatnam. A pre-test was conducted on prime gravida mothers of first stage of labour followed by Lamaze therapy for 50 minutes and then the post test was administered to the experimental group. Similarly, a pre-test was conducted with no intervention and then post-test was administered to control group.

**The first objective was to assess the level of pain among prime gravida mothers of first stage of labour in both experimental and control group before Lamaze therapy.**

The pre-test level of pain scores among prime gravida mothers of first stage of labour of experimental group shows 67% (severe pain), 20% (moderate pain) and 13% (worst pain); whereas in control group, 60% (severe pain), 30% (moderate pain), & 10% (worst pain) before Lamaze therapy.

The findings of the study demonstrated that most of the prime gravida mothers had severe and moderate pain and few had worst pain in both the groups.

Hence, the research Hypothesis ($H_1$) is accepted.

**The second objective was to assess the level of pain among prime gravida mothers of first stage of labour in experimental group after Lamaze therapy**.

The post-test level of pain scores among prime gravida mothers of first stage of labour shows that 87% of mothers had moderate pain, 13% of mothers had severe pain and 0% of mothers had worst pain after providing Lamaze therapy.

The findings of the study demonstrated that after Lamaze therapy more than half of the mothers had moderate pain and few had severe pain in experimental group.

The findings of the study show that the mean post test score of experimental (5.533) was lesser than the mean pre-test score (7.866), showed that there was a significant difference between the pre-test and post-test pain level scores.

The standard deviation of pre-test is 1.166 and the standard deviation of post-test is 1.357, showed that there was a significant difference between the pre-test and post-test pain level of prime gravida mothers of first stage of labour.

The overall computed t value is 16.858 greater than table value 2.05, DF29 which is statistically significant at p <0.05 level.

The above results revealed that there is a significant difference between the pre-test and the post test scores of prime gravida mothers of first stage of labour pain level after providing Lamaze therapy.

The results revealed that the obtained value is more than the table value.

Hence, the research Hypothesis ($H_2$) is accepted.

**The third objective was to compare the level of pain among prime gravida mothers of first stage of labour between experimental and control group after Lamaze therapy.**
The post-test level of pain scores among prime gravida mothers of first stage of labour of experimental group shows that 87% of mother had moderate pain and 13% of mother had severe pain, whereas in control group 70% of mothers had worst pain and 30% of mothers had severe pain after Lamaze therapy.

The findings of the study demonstrated that most of the mothers had moderate pain than severe pain in experimental group and there is no change in level of pain among prime gravida mothers of first stage of labour in control group.

The findings of the study show the significance difference between the mean and standard deviation of post-test pain scores of prime gravida mothers of first stage of labour of experimental and control group using 't' test. The obtained 't' value 12.858 is greater than table value 2.001 at 58 DF in 0.05 level of significance. Therefore, the obtained 't' value is found to be significant.

Hence, the research Hypothesis ($H_3$) is accepted.

**The fourth objective was to find out the association between the post test score on level of pain among prime gravida mothers of first stage of labour with their selected demographic variables in both experimental and control group.**
There is statistical association between the post-test level of pain and the selected demographic variables at p value 0.05 level such as Age, Exercise during antenatal period. Exercise during pregnancy will make the mother fit and the pelvic muscles relax and expand during labour and help in reduce the level of pain during labour. Age below 30 years has less risk for the complications and can tolerate pain compared to elderly prime gravida mothers.

There is no statistical association between the post-test level of pain and the selected demographic variables such as Religion, Educational qualifications, Occupation of the mother, Family income per annum, Type of family, Dietary habits of the mother, Any previous history of abdominal surgery of the mother in experimental group.

There is no statistical association between the post-test level of pain and the selected demographic variables such as Age, Religion, Educational qualifications, Occupation of the mother, Family income per annum, Type of family, Dietary habits of the mother, Exercise during antenatal period, Any previous history of abdominal surgery of the mother without Lamaze therapy in control group.

Hence accepted research hypothesis($H_3$).

## Conclusion

Lamaze therapy is one of the internationally recognized interventions, used in the labour care setting, and helps in the treatment of modern aliments both physical and mental. It reduces the psycho physiological stress, pain, anxiety, isolation to modulation of mood and behaviour modification. Nurses who are working in labour ward are encouraged to take up the challenge in making labour pain management a treatment priority.

This chapter deals with the conclusion, implications, limitations and recommendations of the study. The main purpose of the study was to assess the effectiveness of Lamaze therapy on pain among prime gravida mothers of first stage of labour.

## References

1. Dutta, D. C. (2011). Obstetrics (7th ed., pp. 113–123). Kolkata: New Central Book Agency Publications.
2. Potter, P. A., & Perry, A. G. (2011). Fundamentals of nursing (7th ed., pp. 772–776, 1065). New Delhi: Elsevier Publications.
3. Polit, D. F., & Beck, C. T. (2008). Introduction to nursing research (7th ed., pp. 181–184). Philadelphia: Lippincott Williams & Wilkins.
4. Polit, D. F., & Beck, C. T. (2009). Nursing research: Generating and assessing evidence for nursing practice (9th ed.). Philadelphia: Lippincott Williams & Wilkins.

5. Sharma, S. K. (2012). Nursing research and statistics (1st ed., pp. 358–361). New Delhi: Elsevier Publications.
6. Kozier, B., Erb, G., Berman, A. J., & Burke, K. (2007). Fundamentals of nursing (7th ed., p. 1081). New Delhi: Dorling Kindersley Pvt. Ltd.
7. Hirsch, L., & Ural, H. S. (2011). Dealing with pain during childbirth. KidsHealth. Retrieved June 15, 2011, from https://kidshealth.org
8. Abushaikha, L., & Oweis, A. (2007). Labour pain experience and intensity: A Jordanian perspective. Journal of Transcultural Nursing, 18(1), 35–40. https://doi.org/10.1177/1043659606294196
9. Intranasal education advancing normal birth. (2001). Women's evaluation of intrapartum nonpharmacological pain relief methods used during labour. Birth, 10(3), 1–10. Retrieved June 20, 2011, from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1595076
10. Daisy, J. (2010, November). Nursing crib: Lamaze childbirth method. Nursing Crib. Retrieved August 1, 2011, from http://nursingcrib.com

CITATION
Tirumala, Jeyasutha, C., Raghaveni, R., & Konduri, V. (2025). A Quasi Experimental study: Assess the effectiveness of Lamaze Therapy on Pain During 1ststage of labour among primi gravida mothers at Apollo Hospitals, Visakhapatnam. In Global Journal of Research in Medical Sciences (Vol. 5, Number 5, pp. 41–50).
https://doi.org/10.5281/zenodo.17242372