A Descriptive Study on Labor and Delivery Outcomes Among Women Who Attended Lamaze Sessions During Pregnancy

INTRODUCTION: Lamaze is a well-known and accepted childbirth facilitating technique, it emphasizes on breathing, relaxation and movement techniques which help women during labor. It was introduced by Dr. Fernand Lamaze around 1960s. Lamaze comprises of breathing techniques that help women during childbirth and labor. Labor pain is often regarded as one among the most intense physiological painful events, its severity varies from person to person. Pain relief during labor is of utmost importance, in order to sort this, there are two ideologies in place. Few women prefer medication for pain relieving such as epidural while some resort to non-pharmacological methods such as massages, exercises, etc. One such non – pharmacological method is focused breathing technique called Lamaze Breathing.

RATIONALE OF STUDY: This technique lies under psychoprophylaxis in which pregnant women (expected parents) are prepared for delivery experience well before their due date. It involves psychologically preparing them for labor pain, delivery, and facilitate delivery without the use of anesthesia, including breathing exercise, physical conditioning, psychological readiness. Earlier Lamaze focused only on breathing, however, today it includes classes in which expecting couples are prepared for childbirth and how to manage pain during delivery. India today focuses a lot in the antenatal care, given in terms of various programs, which involves Janani Suraksha Yojana, etc. And Lamaze is proving to become an important part of antenatal education as far as preparedness for pregnancy is concerned. There are studies carried on Lamaze but still there is a long way to go and most importantly in terms of capturing the labor and delivery experience of mothers who attended Lamaze in their antenatal period, hence this study not only focuses on the above mentioned criteria it also captures their sociodemographic factors as well.

RESEARCH QUESTION: What are the labor and delivery outcomes among women who attended Lamaze sessions during pregnancy?

OBJECTIVES:

PRIMARY OBJECTIVE: To describe the labor and delivery outcomes including labor duration and type of delivery among women who attended Lamaze session during pregnancy.

SECONDARY OBJECTIVES:

- To describe maternal pain perception during labor and delivery using pain scores recorded during hospital stay.
- To describe socio demographic and obstetric characteristics of pregnant women.
- To describe maternal perception of the usefulness / effectiveness of Lamaze sessions.

HYPOTHESIS: Descriptive study so no hypothesis testing.

MATERIAL AND METHODS(METHODOLOGY):

STUDY DESIGN: Descriptive cross sectional study using retrospective medical records.

SETTING: The study is being conducted at Cloudnine Hospital, a single specialty maternity hospital in Bangalore.

STUDY POPULATION:

INCLUSION CRITERIA –

- Pregnant women who attended Lamaze session during time period of November 2024 to 6 May 2025.
- Pregnant women who delivered in the same hospital.
- Patients having complete hospital records.

2) EXCLUSION CRITERIA –

- excluding people with incomplete medical records.
- Planned cesarean section without onset of labor.
- excluding complicated pregnancies such as placenta previa, etc.

STUDY DURATION: Medical records are from November 2024 to 6 May 2025, while study duration was from March 2025 to May 2025.

STUDY TOOLS: Data will be collected from hospital records along with a short feedback questionnaire which includes patient's response towards Lamaze which was collected during their hospital stay by the hospital staff and the data will be entered in a structured MS Excel template.

SAMPLE SIZE: All women who took Lamaze session between November 2024 till 6 May 2025 and are meeting the inclusion criteria; estimated sample size is of 92 pregnant women.

SAMPLING TECHNIQUE: Convenient sampling.

DATA COLLECTION PROCEDURE: Data will be collected from complete hospital records and a short feedback which will be entered in MS Excel. The variables that will be included:

- Patient Name
- Age
- Date of Lamaze session
- Date of delivery
- Type of delivery
- Labor duration
- Pain scores during hospital stay
- Birth order
- Past obstetric history
- presence of gestational hypertension/diabetes
- Perceived usefulness/satisfaction of Lamaze session during labor
- Use of Lamaze technique during labor (yes/no/partially)
- If yes, then which technique

OPERATIONAL DEFINITIONS: Lamaze attendee: A Woman who attended at least one Lamaze session during her antenatal period.

Labor Duration: Time from onset of active labor (4 cm cervical dilated) to complete delivery of baby.

Pain score: self – reported score measured using standard pain scale (0-5) recorded by nursing staff during labor and post-delivery period.

DATA ANALYSIS PLAN: Entire data will be entered into Microsoft Excel and descriptive graphs and tables will be used. Descriptive statistics:

Mean/average for variables like age, labor duration, etc.

Frequency and percentage for variables like type of delivery, etc.

Pain scores will be summed up by applying means and ranges. Graphical representation will be included as per needed. No hypothesis testing will be done.

EXPECTED OUTCOMES:

- The study is expected to describe average first stage of labor duration among Lamaze attendees.
- To report the distribution of delivery type, along with socio demographic and obstetric profile among the attendees.
- The study will summarize maternal pain scores recorded.
- To generate descriptive baseline data to support future administrative planning and programs.
- The study is also expected to describe any observed trends between maternal characteristics and delivery and labor experience.
- The study will also describe the extent of use of Lamaze technique during labor.

ETHICAL CONSIDERATION: All the required approvals have been taken to carry out the study. Patient names and their personal data will be coded and kept anonymous.

IMPLICATIONS OF RESEARCH:

- Results of the study will help hospital administration to evaluate the usefulness of Lamaze sessions and decide on its continuation.
- Will help build tailor made sessions as per patient's feedback.
- Will help establish importance of Lamaze sessions in the antenatal program.
- Help the hospital administration in further improving the sessions along with promoting it among patients to enhance childbirth experience.

REFERENCES:

1. Simkin P, Bolding A. Update on Nonpharmacologic Approaches to relieve labor pain and prevent suffering. J Midwifery Womens Health. 2004;49(6):489-504. Doi:10.1016/j.jmwh.2004.07.007

2. Lothian JA. Lamaze breathing: What every pregnant women needs to know. J Perinat Educ. 2011;20(2):118-120. Doi:10.1891/1058-1243.20.2.118.

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