

“A Study to Assess the Knowledge Regarding Structured Teaching Programme on Lamaze Breathing Technique on Labour Pain Among B.Sc. Nursing 4th Year Students at selected Nursing College, Lucknow, U.P.”

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ABSTRACT

Introduction: Labour pain is a common challenge for women that can cause stress and anxiety during childbirth. The Lamaze breathing technique is a natural method that helps women stay calm and focused by using rhythmic breathing. This study finds that Lamaze breathing can reduce pain and anxiety, making the childbirth experience better for mothers. It is a simple, non-medical way to help women feel more in control and improve their overall childbirth outcomes. **Objectives:** 1. To assess the existing level of knowledge regarding Lamaze breathing technique on labour pain among B.Sc. Nursing 4th year students. 2. To find the association between levels of knowledge scores (Pre-test) regarding Lamaze Breathing Technique on Labour Pain with their selected demographic variables. **Materials and Methods:** A Quantitative research, pre experimental research design was used. 100 samples were selected by non-probability purposive sampling technique. Researcher got permission from concerned authority. Written consent was obtained from the samples. The structured knowledge questionnaire was used as a tool. Firstly samples are selected then pre-test was conducted by administering structured Knowledge questionnaire and after that structured teaching programme was given to all 100 B.Sc. Nursing students and then on 7th day post-test was conducted. **Results:** A study of 100 students assessed demographic variables and knowledge of Lamaze breathing techniques. The majority were aged 22–23 years (52%), female (83%) and Hindu (96%). Before the intervention, 94% had no prior knowledge of the technique. After a structured teaching program, posttest results showed 23% had

adequate knowledge, 71% had moderate knowledge, and 6% had inadequate knowledge. The mean score improved from 12.69 in the pretest to 17.32 in the posttest, with a mean difference of 4.63 and a highly significant p-value ($p < 0.001$), indicating the intervention significantly enhanced students' knowledge.

Conclusion: The study concluded that structured teaching programme was effective in enhancing the knowledge regarding Lamaze breathing technique on labour pain among B.Sc. Nursing.

Keywords: Effectiveness, Structured Teaching Programme, Knowledge, Lamaze Breathing Technique.

INTRODUCTION:

“Pregnancy is the privilege of experiencing God’s miracles on earth, up close and personal.”

Background of the Study: Pregnancy and childbirth are profound physiological processes marking the beginning of new life. For centuries, various practices and cultural beliefs have surrounded childbirth, aiming to ensure a safe delivery for both the mother and the child. From conception to labor, significant physical, emotional, and psychological changes occur, necessitating comprehensive prenatal care and support to enhance maternal well-being.

The Lamaze Breathing Technique introduced by Dr. Fernand Lamaze in the 1950s, is a psycho prophylactic method aimed at helping women manage labor pain through breathing exercises, relaxation, and childbirth education. Inspired by Soviet childbirth practices, Lamaze promoted controlled breathing patterns, such as slow-paced, modified, and patterned breathing, to reduce pain perception and enhance maternal confidence. His approach became a cornerstone of natural childbirth, advocating for minimal medical intervention and greater maternal control during labor.

In modern obstetric care, Lamaze breathing remains an essential non-pharmacological pain management strategy, widely taught in prenatal education programs. Studies suggest that these techniques help reduce anxiety, shorten labor duration, and decrease medical interventions like epidurals and cesarean sections. By focusing on rhythmic breathing and relaxation, Lamaze enables women to cope effectively with contractions and maintain a sense of control during childbirth.

In India, the adoption of Lamaze techniques has been relatively slow due to cultural and healthcare barriers. However, there is growing awareness about the benefits of natural childbirth methods, especially in urban areas, where prenatal education programs are becoming more prevalent.

In India, traditional childbirth practices have been influenced by cultural, religious, and regional beliefs. However, with increasing urbanization and access to healthcare, more women are turning to modern childbirth education programs, including Lamaze classes.

Lamaze breathing techniques aim to reduce the perception of pain by promoting relaxation and encouraging rhythmic breathing patterns. This method involves slow, deep breaths during contractions and faster, shallow breaths during intense labour stages. The primary goal is to help women remain calm, focused, and in control during childbirth.

According to a study published in the Indian Journal of Obstetrics and Gynecology (2022), women who practiced Lamaze breathing techniques reported a 40% reduction in the perception of labour pain compared to those who did not receive any structured pain management education. The study also highlighted that women who used Lamaze techniques had a lower rate of medical interventions, such as epidurals and cesarean sections, indicating that these techniques can promote more natural birth outcomes.

In the Indian context, where cesarean rates have been rising significantly, promoting Lamaze breathing can contribute to reducing unnecessary medical interventions. For example, a report by the Indian Ministry of Health and Family Welfare (2020) noted that cesarean section rates in urban hospitals have reached 28%, with many procedures being elective rather than medically necessary.

Beyond physical pain management, Lamaze breathing provides psychological benefits to mothers. The technique promotes relaxation, reduces anxiety, and enhances a woman's confidence in her ability to give birth naturally. Studies have shown that women who participate in childbirth education programs, including Lamaze, experience lower levels of anxiety and higher levels of self-efficacy during labour.

NEED FOR THE STUDY:

“Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.”

-Kofi Annan

Childbirth is a significant event in a woman's life, accompanied by intense physical and emotional changes. One of the most crucial aspects of labour is the management of pain, which can significantly influence the childbirth experience. Studies show that effective pain management techniques can reduce anxiety, improve maternal satisfaction, and promote smoother delivery outcomes.

In India, a study conducted by the Indian Journal of Obstetrics and Gynecology (2022) reported that 72% of women experience severe labour pain, yet less than 20% of them have access to structured childbirth education programs, including non-pharmacological pain management techniques. This highlights a significant gap in awareness and accessibility to effective pain management solutions like Lamaze breathing.

In India, cesarean rates have been steadily increasing over the past decade, particularly in private hospitals. According to a report by the World Bank (2020), cesarean sections accounted for 35% of births in urban areas,

compared to just 10% in rural areas. The overuse of medical interventions highlights the need for promoting natural childbirth practices such as Lamaze breathing to encourage vaginal births.

The need for Lamaze breathing techniques in India is evident, given the challenges in maternal healthcare and the psychological and physical benefits of these practices. By promoting natural childbirth methods, healthcare providers can enhance maternal well-being, reduce medical interventions, and improve overall birth outcomes.

Addressing the current gaps in awareness and accessibility requires collaborative efforts from government agencies, healthcare providers, and community organizations. Integrating Lamaze breathing into prenatal care programs can play a crucial role in transforming maternal healthcare in India.

STATEMENT OF THE PROBLEM

“A Study to Assess the Knowledge Regarding Structured Teaching Programme on Lamaze Breathing Technique on Labour Pain among B.Sc. Nursing 4th Year Students at selected Nursing College Lucknow, U.P.”

OBJECTIVES OF THE STUDY

1. To Assess the Knowledge Regarding Structured Teaching Programme on Lamaze Breathing Technique on Labour Pain among B.Sc. Nursing 4th Year Students.
2. To find the association between levels of knowledge scores (Pre-test) regarding Lamaze Breathing Technique on Labour Pain with their selected demographic variables.

RESEARCH METHODOLOGY

Research Approach:

A quantitative approach was adopted to determine the research study.

Research Design:

A Pre-experimental one-group pre-test and post-test design was used for the study.

Setting of the Study:

The setting of the study is Bora Institute of Allied Health Sciences, Lucknow.

Target Population:

The target population for this present study includes all the B.Sc. Nursing Students.

Accessible Population:

The accessible population for the present study includes B.Sc. Nursing IV Year students of Bora Institute of Allied Health Sciences, Lucknow.

Sample Size:

The sample size of the present study is 100 B.Sc. Nursing students.

Sampling Technique:

Non probability purposive sampling technique was adopted for this study.

Inclusion criteria:

B.Sc. Nursing students who were;

- Studying in B.Sc. Nursing 4th year.
- Able to understand Hindi or English.
- Willing to participate in the study.

Exclusion criteria:

B.Sc. Nursing students who were;

- Sick or Absent

Variables of the Study:

Demographic variables: Demographic variables like age, gender, age, gender, religion, previous knowledge, source of information.

Independent variables: Structured Teaching Programme regarding Lamaze Breathing Technique on Labour Pain.

Dependent variables: Knowledge of B.Sc. Nursing IV year students

Description of the Tool:

Part-A: Demographic variables include age, gender, age, gender, religion, previous knowledge, source of information.

Part-B: Structured Knowledge Questionnaire on knowledge regarding Lamaze Breathing Technique on Labour Pain.

DATA ANALYSIS

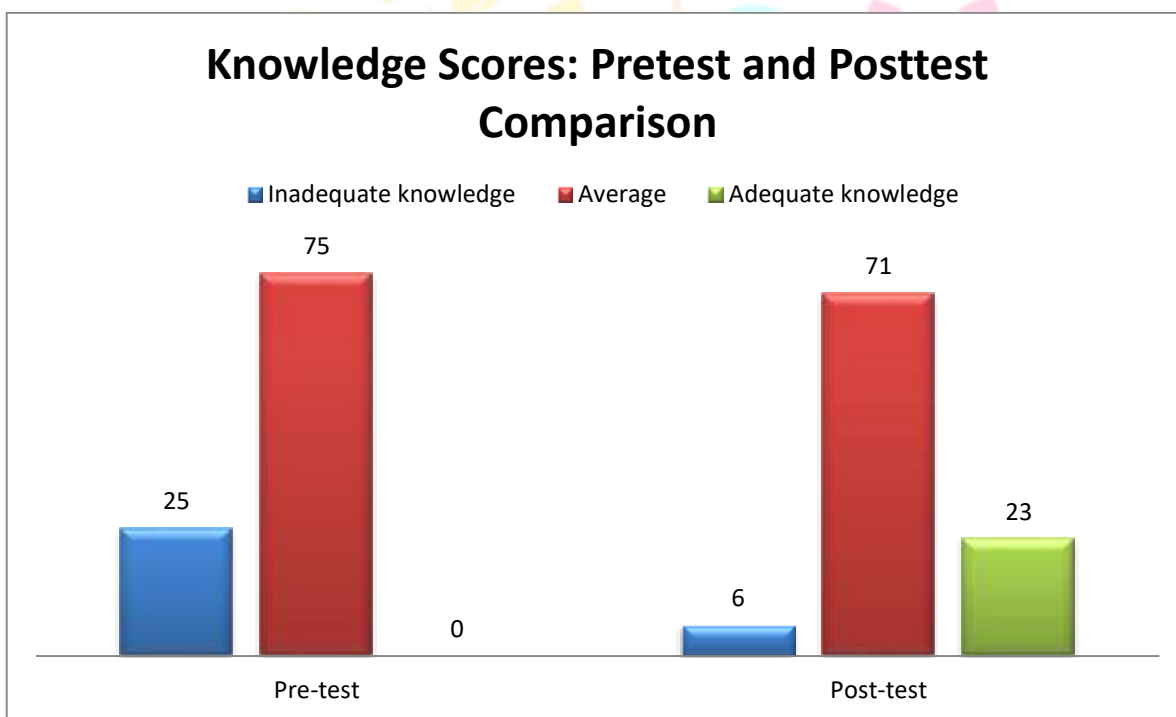
FINDING RELATED TO DEMOGRAPHIC DATA:

Variable	Categories	Frequency (Pretest)	Percentage (%)
Age	20 years	5	5%
	21 years	43	43%
	22 years	26	26%
	Above 22 years	26	26%
Gender	Male	17	17%
	Female	83	83%
Religion	Hindu	96	96%
	Muslim	1	1%
	Christian	2	2%
	Sikh	1	1%
Previous Knowledge	Yes	6	6%
	No	94	94%
Source of Information	Seminar/Workshop	0	0%
	Books/Articles	3	,3%
	Journals	3	3%
	Media, TV	0	0%
	No Source	94	94%

KNOWLEDGE SCORES OF PRETEST AND POSTTEST COMPARISON:

This table provides a comparative summary of the participants' knowledge levels in the pretest and posttest phases.

Score	Pre-test	Post-test
Inadequate knowledge	25	6
Average	75	71
Adequate knowledge	0	23

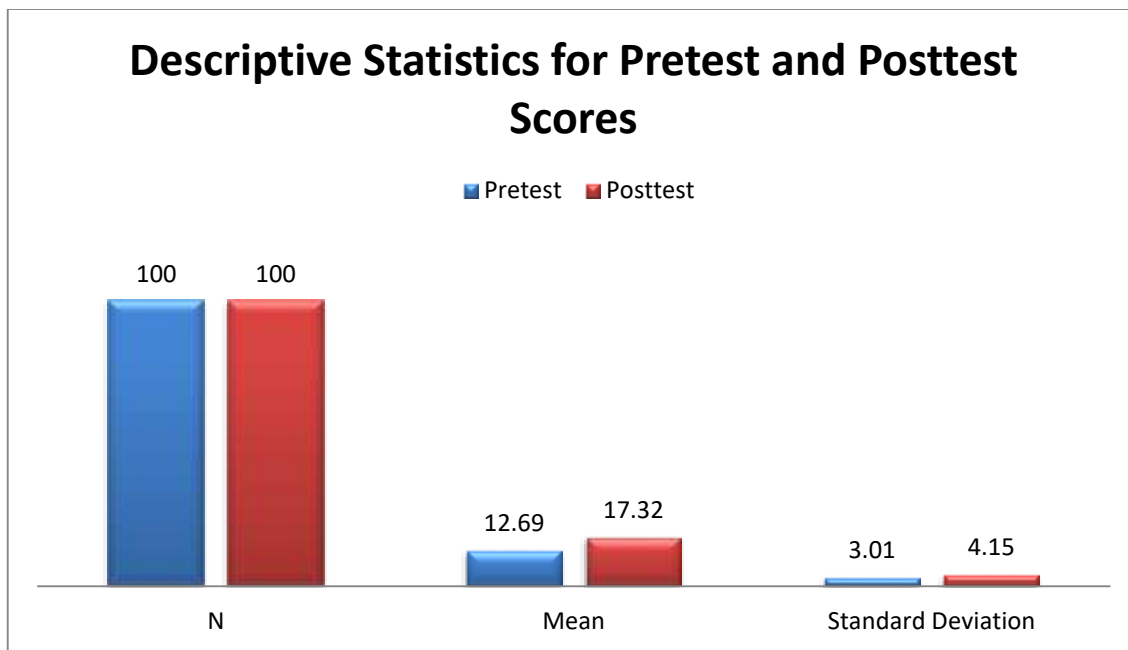


Interpretation: The intervention resulted in a notable improvement in knowledge levels. The number of students with “Inadequate Knowledge” dropped from 25 to 6, while 23 students achieved “Adequate Knowledge” in the posttest, where none had reached this level in the pretest. This positive shift signifies the effectiveness of the intervention in raising awareness and understanding of the Lamaze technique.

DESCRIPTIVE STATISTICS FOR PRETEST AND POSTTEST SCORES:

This table presents the statistical summary for the pretest and posttest scores, with means, standard deviations, and the results of a t-test to assess the significance of the score improvement.

Test	N	Mean	Standard Deviation	t	df	Sig. (2-tailed)
Pretest	100	12.69	3.01	9.06	99	0.000
Posttest	100	17.32	4.15			



The mean score increased from 12.69 in the pretest to 17.32 in the posttest, indicating a positive impact of the intervention on students' knowledge regarding the Lamaze technique. The standard deviation also increased slightly, suggesting some variability in posttest scores among students.

The t-test yielded a mean difference of -4.63 with a highly significant p-value ($p < 0.001$). This result confirms a statistically significant improvement in posttest scores compared to pretest scores, indicating that the intervention effectively enhanced students' knowledge of Lamaze breathing techniques.

RECOMMENDATIONS FOR FUTURE RESEARCH

On the basis of the findings of the study, it is recommended that the following study can be undertaken to strengthen quality of nursing care;

- Similar study can be replicated on a large sample.
- Integrate Lamaze Breathing into Core Curriculum: Nursing institutions should embed Lamaze breathing techniques into the core obstetric and gynecological nursing curriculum. This inclusion will ensure that students receive comprehensive training in non-pharmacological pain management methods.

- **Simulation-Based Learning:** Develop simulation-based training programs that allow nursing students to practice Lamaze techniques in a controlled environment. This hands-on experience will enhance knowledge retention and skill application during clinical placements.
- **CPD Programs:** Establish ongoing professional development programs to provide refresher courses and advanced training in Lamaze breathing techniques for practicing nurses in maternity care.
- **Certification Programs:** Introduce certification programs for Lamaze instructors within healthcare institutions, ensuring that trained nurses can effectively teach expectant mothers.
- **Mandatory Lamaze Training:** Develop policies that mandate Lamaze breathing education as part of antenatal care services in healthcare institutions. Ensure that all expectant mothers are offered training in Lamaze techniques during prenatal visits.
- **Resource Allocation:** Allocate sufficient resources, including staff, time, and physical space, to support the implementation of Lamaze training programs in maternity wards and community clinics.

CONCLUSION:

The findings of this dissertation highlight the transformative potential of educational interventions in enhancing nursing students' knowledge of Lamaze breathing techniques. By integrating Lamaze training into nursing curricula, clinical practice, and professional development programs, healthcare institutions can improve labor pain management, enhance maternal outcomes, and promote patient-centered care.

Moving forward, the integration of Lamaze techniques into national maternity care guidelines, supported by robust research and administrative leadership, can drive significant improvements in maternal and neonatal health. This dissertation serves as a foundation for future efforts to enhance labor pain management, reinforcing the vital role of nurses in supporting expectant mothers through the transformative journey of childbirth.

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