Assessment of Knowledge on Lamaze Breathing among Primigravida

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Original Research Article

ABSTRACT

Primigravida, particularly women who are pregnant for the first time, are generally unaware of Lamaze breathing and its benefits. The purpose of this study was to analyse Primigravida moms' knowledge of Lamaze breathing in Bhopal's designated hospitals. This study was conducted using a descriptive research approach. The study's target population was primigravida, and the sample method was purposive sampling. A total of 50 people were included in the study. The knowledge of primigravida about Lamaze breathing was assessed using a self-structured questionnaire, and the study findings revealed that knowledge of Lamaze breathing was inadequate. It is therefore important to educate antenatal mothers about simple but useful breathing exercises to reduce pain perception and promote comfort during labour.

1. INTRODUCTION

Pregnancy is a natural phenomenon that leads women to feel pain, concern, anxiety, and even the dread of death as it comes to an end. Childbirth is a complex process with physical, emotional, social, physiological, cultural, and psychological components. Childbirth may be a

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life-altering and sometimes traumatic experience for women [1].

Pain is one of the most prevalent medical issues, and it has a detrimental influence on a person's skills as well as causing fear and worry. Physical, psychological, environmental, and supporting factors all have an impact on how people feel about labour pain, which has a significant impact on the delivery method they select [2-4].

Lamaze breathing is often used as a breathing training tool. Nurses routinely provide nursing interventions during labour, including posture nursing, delivery ball, doula nursing, massage, and psychological nursing. A number of clinical research have looked into the effectiveness of Lamaze breathing training paired with nursing care on mother pain reduction and outcome improvement. However, it was met with opposition from a number of academicians [5-6].

The Lamaze breathing techniques, established by French doctor Ferdinand Lamaze in the early 1950s, are today one of the most extensively utilised delivery approaches. The Lamaze breathing methods employ pattern breathing to help lessen labour discomfort. As each contraction begins, take a deep, cleansing breath. This deep breath is followed by slow, deep breathing in through the nose and out through pursed lips. The attention is diverted away from the discomfort by concentrating on proper breathing [7-9].

The labour process is divided into four stages. Between the commencement of actual labour and the point of full cervical dilatation and effacement, the first and longest stage of labour occurs. The foetus is expelled in the second stage of labour, and the placenta is delivered in the third stage. The first 24 hours after the placenta is delivered are the fourth stage. Tension and worry during labour, according to Mckinney and Murray, create abdominal muscular tightness, imminent contractions, and increased pain by stimulating nerve endings that heighten pain sensitivity. Long-term muscular tension leads to tiredness and an increased feeling of pain. When anxiety and stress are high, uterine contractions are ineffective, and labour lengthens. A woman who can stay calm will labour more quickly and with less discomfort, as well as be better equipped to apply other self-help tactics [10-11].

To help with relaxation during labour, a variety of techniques are given. Rhythmic breathing during labour, according to the Infant Centre Medical Advisory Board (2008), increases the quantity of oxygen accessible to the mother and the baby. Breathing practises might also aid in the relief of contraction discomfort. Women's respiration becomes shallow and fast when they are nervous and afraid. Panic breathing reduces the amount of oxygen taken in by the woman and her baby. The ladies feel dizzy and uncontrollable. The goal of labour is to preserve energy as much as possible while still providing sufficient of oxygen to the baby to help him deal with the trauma of birth. Massage and breathing naturally assist in the conscious relaxation of the body, which is a skill that is required during labour. Massage is especially beneficial during early and active labour. It allows the body to take control by relaxing the muscles and thoughts. One of the most common anxieties among pregnant women is the discomfort connected with childbirth. Primi moms learn how to become attentive to discomfort and contractions through the Lamaze method. This allows the woman to move and arrange her body in such a manner that the natural labour process is aided [12].

1.1 Need for the Study

According to the Globe Health Organization, a woman dies every minute of every day somewhere in the world as a result of pregnancy or childbirth, amounting to more than half a million women every year. Maternal mortality is predicted to be 400 per 1,000 live births worldwide. Every year in India, 78,000/1,00,000 moms die during childbirth, according to UNICEF. According to UNICEF, India's maternal mortality rate stands at 450 per 1,00,000 live births. Against 540 in 1998-1999, India's millennium development goal is to reduce the maternal mortality rate below to 109 by the year 2015. Maternal mortality is estimated to be 25% globally.

1.2 Problem Statement

A study to assess the knowledge on Lamaze breathing among primigravida in selected hospitals at Bhopal, (M.P.).

1.3 Objectives

- To assess the level of pain perception, anxiety, fatigue and labor outcome in the experimental group after intervention.
- To evaluate the effectiveness of Lamaze method in terms of pain perception,

anxiety, fatigue and labor outcome in control group. ¾ to compare the outcome in the experimental group and control group.

- To associate the demographic variables with the experimental group.

1.4 Operational Definitions

Effectiveness refers to determine the extent to which the breathing and relaxation techniques, massage and positions produce significant changes in labor process by using statistical measurements

2. MATERIALS AND METHODS

2.1 Lamaze Method

The Lamaze method is the most popular method which includes various techniques like breathing and relaxation, massage and positions to reduce pain during labor.

2.2 Breathing Technique

In this study, breathing technique like cleansing breath and slow paced breathing are taught to the mothers and reinforced during each contraction of labor process.

2.3 Relaxation Technique

In this study relaxation technique like touch relaxation is taught to the mothers and reinforced during each contraction of labor process.

2.4 Massage

Systematic therapeutic friction, stroking or kneading of the body.

2.5 Hypothesis

There will be a significant association between knowledge of primigravida regarding Lamaze breathing with selected demographic variables.

2.6 Operational Definition

Knowledge: - Knowledge refers to the verbal responses of the primigravida regarding Lamaze breathing as assessed by a structured questionnaire.

Primigravida: Women who get pregnant for the first time.

Lamaze breathing: Breathing technique based on the idea that controlled breathing can enhance relaxation and decrease the perception of pain.

2.7 Assumptions

1. Primigravida will have some knowledge regarding breathing exercises.
2. Demographic variables may or may not influence the knowledge of Primigravida.

2.8 Methodology

This study was conducted using a descriptive research design.

2.9 Setting

The research was carried out at RKDF Medical College Hospital & Research Center, which has a total of 750 beds & 65 beds are in maternity wards.

2.10 Population

Pregnant women who were attending antenatal OPD's of the hospital at the time data collection.

2.11 Sampling

Purposive sampling was used to collect data.

2.12 Sample Size

The sample size was 50.

2.13 Criteria for Sample Selection

2.13.1 Inclusion criteria

- The primigravida who were willing to participate
- The primigravida who were in the RKDF Medical College Hospital & Research Center at the time of data collection.

2.13.2 Exclusion criteria

- The primigravida who were not willing to participate.

2.14 Description of the Instrument

A self-structured questionnaire was used to conduct the study. The tool consisted of:

Part I- Demographic variables such as age, education, occupation, income, area.

Part II- Consisted of a semi structured questionnaire to assess the knowledge on Lamaze breathing which consisted of 30 multiple choice questions.

2.15 Scoring

Each question had four options from which the sample had to choose one correct answer. The right answer was scored as one and the wrong option was scored as zero.

The scoring was interpreted as below:

*   Adequate knowledge   76 % - 100 %
*   Moderate knowledge   51 % - 75 %
*   Inadequate knowledge   0 % - 50 %

The data collection was done for a period of one week. Before commencing the study, the permission was obtained from the Hospital administration .The investigator established rapport with the study subjects and the purpose of the interview was explained to each subject with inform consent and then data wascollected.

The demographic variables and knowledge of women were analyzed by using descriptive measures. Association between knowledge and the selected demographic variables of Primigravida were analyzed by using inferential measures.

The level of significant used was 0.05%.

3. RESULTS AND DISCUSSION

3.1 Data Analysis and Interpretation

Table 1 reflects the demographic variables of women such as age, education, occupation, income, area. Among 50 samples, 56 % were from rural area and 44% were from urban area.

The samples were selected eventually to the given age group as 25-30 years 44 %, 31-35 years 38 %, 36-40 years 18 %. With regard to education, 24 % were matriculated, 34 % studied upto Intermediate, 26 % were graduate and 16% were uneducated.

With regard to their occupation 50 % were working in private sector, 36 % were working in government sector and 14 % were housewife.

With regard to their income, 26 % were getting between Rs. 5000/- to 10,000/- per month, 34 % were getting Rs. 10,000/- to 15,000/- per month, 40 % were getting above Rs. 15,000/- per month.

Table 1. Distribution of samples by demographic variableN=50

Demographic data	Frequency	Percentage
Age		
25-30 years	22	44
31-35 years	19	38
36-40 years	09	18
Education		
Matriculation	12	24
Intermediate	17	34
Graduation	13	26
Uneducated	08	16
Occupation		
Private	25	50
Government	18	36
Housewife	07	14
Income		
Rs. 5000 – 10000	13	26
Rs. 10000-15000	17	34
Above Rs. 15000	20	40
Area		
Rural	28	56
Urban	22	44

Table 2. Distribution of Primigravida by knowledge score N=50

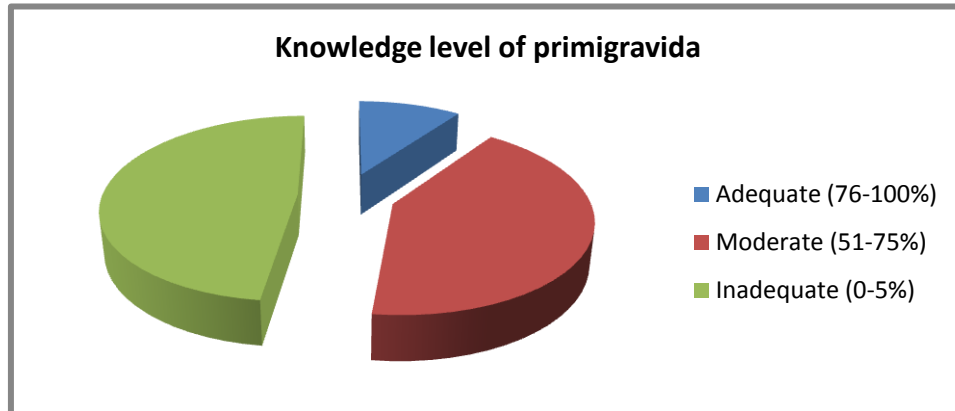| Knowledge level	Number	Percentage
Adequate (76-100 %)	05	10
Moderate (51-75 %)	21	42
Inadequate (0-5 %)	24	48

Fig. 1. Pie diagram showing distribution of primigravida by knowledge score

3.2 Distribution of Women by Knowledge Level

The study findings revealed that there was no significant association between knowledge and selected demographic variables such as age, education, occupation, income, area. There was significant association between knowledge with age and educational status.

4. CONCLUSION

Primigravida's knowledge of Lamaze breathing was insufficient. It is necessary to educate primigravida about Lamaze breathing during labour.

This study comes to the following conclusion after a thorough analysis: The effectiveness of breathing exercises throughout pregnancy and childbirth was assessed on a regular basis. Breathing exercises taught the woman to breathe and relax during contractions, allowing her to manage the amount of agony she felt. Breathing exercises reduce the length of labour and reduce the risk of problems. This research has clearly demonstrated the importance of doing breathing exercises throughout pregnancy and performing them during childbirth. As a result, this study found that Lamaze breathing techniques improve labour outcomes during the initial stage of labour. Breathing exercises will assist the mother in managing the discomfort and accelerating the course of labour, resulting in a shorter labour and a normal spontaneous vaginal birth.

5. IMPLICATIONS

5.1 Nursing Practice

The study findings will help primigravida regarding Lamaze breathing and they can utilise this knowledge during labour to improve maternal and fetal outcome.

5.2 Nursing Education

The student nurses may be motivated to educate the women regarding Lamaze breathing.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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