

A Study to Assess the Effectiveness of Lamaze Breathing on Labor Pain and Anxiety Towards Labor Outcome among Primigravida Mothers During Labor in Community Health Center, Kolar Road, Bhopal (M.P.)

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Abstract

Context: Assessing the effect of Lamaze breathing on labor pain in primigravida mothers.

Settings and Design: The study was conducted at Community Health center, kolar road, Bhopal (M.P.). The primigravida mothers who were in first stage of labor were selected from labor room. An experimental research was conducted to assess the effectiveness of Lamaze breathing techniques on labor pain and anxiety. Women taken in control group were assessed for their labor pain, and women in experimental group were instructed to perform Lamaze breathing exercises during pains and their level of pain & anxiety were assessed and then compared with women of control group.

Methods and Material: The tools used were- Demographic variables, clinical variables, a visual analogue pain perception scale, and an observational rating scale for performing Lamaze breathing.

Statistical Analysis Used: The findings were analyzed using 't' test, chi square test, and Karl Pearson formula.

Results: Comparison of level of pain perception between control and experimental group on the basis of paired 't' test shows that the level of pain perception in control group is higher than the experimental group. The mean of control group is 7.55 and of experimental group are 4.55.

Mean percent is 75.5% and 45.5% of control and experimental group respectively. And, SD of control group is 0.945 and of experimental group, it is 1.234. The 't' value is 3.96 and P value is $P < 0.001$ which is highly significant. Result shows, that after receiving the Lamaze breathing exercises, the labor outcome during first stage of labor was good.

Conclusions: Continuous ongoing assessment helped to evaluate the performance of breathing exercises during pregnancy and labor. Practice of breathing exercises conditioned the mother to breathe and relax during contractions to control the experience of pain in gravid mothers. Practice of breathing exercises shortens the duration of labor, and prevents the complications during labor.

Keywords: Effectiveness; Lamaze Breathing; Primigravida; Labor.

Introduction

"The power and intensity of your contractions cannot be stronger than you, because it is you."

Labor is a dynamic phenomenon. Active management of labor shortens the duration of labor, lowers surgical interventions, improves behavioral outcome during second stage of labor. The expectant mothers, especially primi mothers are not able to adjust themselves during painful labor. They screams with pain and becomes exhausted much earlier using their power of pushing the fetus before time, which may result in early rupture of membranes following prolonged and complicated labor. So the active management of first stage of labor by the nurse midwives is an essential thing for the maternal and fetal outcome.

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A pregnant woman, who breathes properly, in a pattern or rhythm during her labor, benefits both herself and her baby. This is because a patterned breathing helps in providing the baby as well as the mother the right amount of oxygen. Secondly, with the right breathing the mother is better equipped to cope with the pain that contractions bring about.

Aims

- To assess the level of pain in primigravida mothers during first stage of labor in experimental and control group.
- To assess the anxiety in primigravida mothers during first stage of labor in experimental and control group.
- To assess the effectiveness of selected aspects of Lamaze method on pain and anxiety towards labor outcome among primigravida mothers in experimental group.
- To compare the selected aspects of Lamaze breathing on pain and anxiety towards labor outcome among primigravida mothers in experimental and control group with their selected demographic variables.

Hypothesis

H₁: There is a significant relationship between pain and selected aspects of Lamaze method among primigravida mothers in experimental group.

H₂: There is a significant relationship between pain and anxiety of primigravida mothers in experimental group and control group after performing selected aspects of Lamaze method.

Materials and Methods

An experimental research design with control group and experimental group was undertaken to assess the effectiveness of Lamaze breathing on labor pain and anxiety towards labor outcome among primigravida mothers during first stage of labor. 20 women were selected in control group and 20 were in experimental group selected by purposive sampling technique, data were collected from 25/8/2015 to 07/9/2015. Pain perception in women of control group was assessed by visual analogue pain perception scale, and in experimental group, the women were instructed to perform Lamaze breathing technique by using observational rating scale and after that their pain perception were assessed by the same visual analogue pain perception scale., and it

was analyzed by using descriptive and inferential statistics ('t' test, chi-square, Karl Pearson formula).

Demographic Variables

The demographic variables and clinical variables to be included are:-

- Demographic Variables:

- Age in years
- Religion
- Educational Qualification
- Occupation

- Clinical Variables :

- Time of onset of pain
- Cervical dilatation in cm
- Level of pain
- Frequency of pain
- Rupture of membranes

- Observation Rating scale

- Visual analogue pain perception scales were used.

Results

It Indicates that 70% (14) primigravida mothers having severe pain and 30% (6) mothers having moderate pain in control group. Whereas, in experimental group, 65% (13) mothers were having mild pain, 35% (7) of them were having moderate pain. So, as the result shows after receiving the Lamaze breathing exercises, which is more effective, their pain perception was reduced.

Evaluation of data related to effectiveness of breathing exercises on labor outcome during labor was done by paired 't'-test. The mean in experimental group was 4.55 and in control group was 7.55 with a standard deviation of 1.234 and 0.944 respectively. The mean % of experimental group is 45.5% and in control group it is 75.5%. The paired t test - value was 3.96 which are highly significant at $P < 0.001$. This proves the effectiveness of breathing exercises on pain, anxiety and labor outcome during first stage of labor.

There is no significant relationship between the level of pain perception and selected demographic variables. As the result shows, that after receiving the Lamaze breathing exercises, the labor outcome during first stage of labor was good.

Discussion

This study has clearly highlighted the need to practice the breathing exercises during pregnancy and to perform it during labor. Hence this study has

concluded that Lamaze breathing exercises have positive effect on labor outcome during first stage of labor. Breathing exercises will help the mother in tolerating the pain, improving progress of labor in terms of reduction in duration of labor leading to normal spontaneous vaginal delivery.

Table 1: Pattern wise comparison of effectiveness of Lamaze breathing therapy on experimental group on the basis of mean, SD, and mean percentage

Area	Maximum score	Mean	SD	Mean %
Slow paced breathing	24	3.55	5.216	14.79 %
Modified paced breathing	24	14.15	1.598	58.95 %
Pattern paced breathing	12	7.4	0.820	61.67 %

Table 2: Type or copy/paste here a brief descriptive title of the table DO NOT use full-stop after table heading

Pain perception	Mild	Moderate	Severe	D.F.	Chi Square Value	Significance
Experimental group	13 (62%)	07 (35%)	0	2	27.07	<0.0001 Highly significant
Control group	0	06 (30%)	14 (70%)			

d.f. = Degree of freedom

Conclusion

After the detailed analysis, this study leads to the conclusion as Continuous ongoing assessment helped to evaluate the performance of breathing exercises during pregnancy and labor. Practice of breathing exercises conditioned the mother to breathe and relax during contractions to control the experience of pain in gravid mothers. Practice of breathing exercises shortens the duration of labor, and prevents the complications during labor.

This study has clearly highlighted the need to practice the breathing exercises during pregnancy and to perform it during labor. Hence this study has concluded that Lamaze breathing exercises have positive effect on labor outcome during first stage of labor. Breathing exercises will help the mother in tolerating the pain, improving progress of labor in terms of reduction in duration of labor leading to normal spontaneous vaginal delivery.

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Key Messages

Child birth can be one of the most exhilarating and fulfilling experiences of a woman's life. It can also be one of the most stressful and painful. Even with pain medication child birth can be uncomfortable. Breathing techniques are a helpful way to help a woman focus and get through the sometimes long, arduous task of delivering a babyText.

Appendixes

Effects of Lamaze Breathing

Lamaze Breathing Techniques are a learned skill which enhances relaxation. Rhythmic breathing develops body awareness and improved oxygenation. The relaxation and oxygenation aspects of the breathing techniques reduce pain perception. Slow, rhythmic breathing of mild intensity stimulates the parasympathetic nervous system,

which is the tranquilizing portion of the nervous system. Rapid and tense breathing stimulates the sympathetic nervous system, which is the arousal portion of the nervous system and is associated with stress and panic.

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