

## EFFECTIVENESS OF RELAXED BREATHING EXERCISE ON PAIN PERCEPTION DURING THE FIRST STAGE OF LABOUR AMONG PRIMIGRAVIDA MOTHERS

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### ABSTRACT:

A study was conducted to assess the effectiveness of relaxed breathing exercise on pain perception during the first stage of labour among Primigravida mothers in C.S.I Mission Hospital Nagercoil, Kanyakumari district. Quasi experimental pre and post-test design was adopted. Purposive sampling technique was used to select the sample consists of 120 Primigravida mothers during first stage of labour with cervical dilatation between 4-7cm, in which 60 as experimental group and 60 as control group. Pre-test score of the pain perception level was assessed by using Numeric Pain Rating scale and recorded in both experimental and control group during active phase of labour. Then, in the experimental group, Relaxed Breathing Exercise was demonstrated and instructed to practice during each contraction from the beginning of contraction and continued till the contraction ceased for 2 hours under the supervision of the investigator. Same time, there was no such intervention for the control group. By the end of last contraction in the second hour, the post-test score pain perception level was assessed by using Numeric Pain Rating scale for both experimental and control groups.

Based on the objectives and Hypothesis, the collected data were analyzed by using Descriptive and Inferential statistics. Study proved that there is significant reduction of pain perception among the experimental group than the control group. There is a significant difference between mean post assessment pain perception of experimental and control group is 4.11 and 8.20 respectively. The computed unpaired 't' value 19.2 of the mean post assessment score is greater than the table value 2.02 at 5% level of significance. This shows that Relaxed Breathing Exercise is effective in labour pain perception during the first stage of labour among Primigravida mothers.

**Key words:** Effectiveness, Relaxed Breathing, Pain perception, First stage of labour, Primigravida mother

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**INTRODUCTION:****“Birthing is natural, the babies desired for it, we’ll make it as natural as possible”.-**

Childbirth is unforgettable marvelous event in woman’s life. Labour pain is one of the most severe pains a woman experiences in her life; it is higher among Primi parturient women. This occurs with uterine contractions, cervical dilation, and effacement. During labour, increased anxiety enhances the pain perception, increases labour duration and catecholamine secretion which reduce blood flow in the uterus. This decreases the uterine contractions and increases labour duration. The release of catecholamine further adds to the emotional stress and causes a delay in the labour process, which in turn increases the demand for cesarean section from mothers. To improve labour and delivery experience, breaking the anxiety-pain-fear cycle is a main concern of nurses working in labour and delivery rooms. A vital nursing role during waiting times for childbirth is to assist parturient in reducing pain perception and properly cope with uterine contractions. Thus, the present study was done to evaluate effectiveness of relaxed breathing on reducing pain perception among primi parturient.

**NEED FOR THE STUDY:**

Mothers in labour had observed various behavioural responses like crying, hitting the labour table, biting of teeth tightly, etc. Mainly, mothers are not prepared mentally and physically to deal the happenings of pregnancy. Moreover, they sink into panic during the progress of labour. This could be controlled by relaxation technique like relaxed breathing exercise. Many studies concluded that mothers who practiced relaxed breathing exercise reported significant reduction in pain perception. Parity also influences labour pain, that is, Primigravida women experience more pain during labour than multigravida mothers. Hence, the investigator is interested to evaluate the effectiveness of relaxed breathing on pain perception among Primigravida mothers. This study will help in providing better care during intra partum period which gives a positive childbirth experience to the mother.

**PROBLEM STATEMENT:**

A Study to Assess the Effectiveness of Relaxed breathing Exercise on Pain perception during the first stage of labour among Primigravida mothers in selected hospitals at Kanyakumari District, Tamil Nadu.

**OBJECTIVES:**

1. To assess and compare the pre-test and post-test level of Pain perception during the first stage of labour among Primigravida mothers in the experimental group and control group.
2. To determine the effectiveness of Relaxed Breathing Exercise on Pain perception during the first stage of labour among Primigravida mothers in the experimental and control group
3. To find out the association between pretest levels of Pain perception with selected demographic variable during the first stage of labour among Primigravida mothers in the experimental group and control group.

**RESEARCH METHODOLOGY:**

- Research Approach: A quantitative research approach was adopted.
- Research Design: quasi experimental pre and post-test design
- Population & Setting: The target population of the study was all Primi mothers who are in the first stage of labour, selected Hospital at Kanyakumari district, Tamil Nadu.
- Sample and Sampling techniques: In this study, the sample consists of 120 Primigravida mothers during first stage of labour with cervical dilatation between 4-7cm, in which 60 as experimental group and 60 as control group. Sampling technique used is Purposive sampling.

**RESEARCH TOOL:**

- Section-A: Demographic variables
- Section-B: Numerical Pain Rating scale (NPRS) for measuring the level of pain perception.

**RELIABILITY OF THE TOOL:**

Numeric pain rating scale is a standardized tool.

**FINDINGS OF THE STUDY:**

There is a significant difference between mean post assessment pain perception of experimental and control group is 4.11 and 8.20 respectively. The computed unpaired ‘t’ value 19.2 of the mean post assessment score is greater than the table value 2.02 at 5% level of significance. This shows that Relaxed Breathing Exercise is effective in labour pain perception during the first stage of labour among Primigravida mothers.

In control group, there was high significant association between pretest level of pain perception and the demographic variables like Weight of mother ( $\chi^2=8.41$ ,  $df=4$ ) and Weight gain during Pregnancy ( $\chi^2=9.87$ ,  $df=2$ ). But there was no association between pretest level of pain perception and the demographic variables like age ( $\chi^2=5.58$ ,  $df=2$ ), education ( $\chi^2=1.27$ ,  $df=3$ ), Occupation ( $\chi^2=0.93$ ,  $df=2$ ), Income Per Month ( $\chi^2=3.45$ ,  $df=3$ ), Type of family ( $\chi^2=1.35$ ,  $df=1$ ), Area of Residence ( $\chi^2=0.99$ ,  $df=2$ ), Social support ( $\chi^2=0.87$ ,  $df=3$ ), Any

Medical condition ( $\chi^2=6.19$ ,  $df=3$ ), Religion ( $\chi^2=0.53$ ,  $df=2$ ), Height of Mother ( $\chi^2=2.24$ ,  $df=3$ ), Nourishment the mother ( $\chi^2=5.78$ ,  $df=3$ ), Pregnancy complication ( $\chi^2=4.31$ ,  $df=2$ ), Types of labour ( $\chi^2=1.07$ ,  $df=1$ ).

In study group, there was high significant association between pretest level of pain perception and the demographic variables like Weight gain during Pregnancy ( $\chi^2=11.26$ ,  $df=2$ ). But there was no association between pretest level of pain perception and the demographic variables like age ( $\chi^2=3.82$ ,  $df=2$ ), education ( $\chi^2=3.29$ ,  $df=3$ ), Occupation ( $\chi^2=1.76$ ,  $df=2$ ), Income Per Month ( $\chi^2=6.03$ ,  $df=3$ ), Type of family ( $\chi^2=0.95$ ,  $df=1$ ), Area of Residence ( $\chi^2=2.44$ ,  $df=2$ ), Social support ( $\chi^2=1.33$ ,  $df=3$ ), Any Medical condition ( $\chi^2=5.60$ ,  $df=3$ ), Religion ( $\chi^2=0.50$ ,  $df=2$ ), Height of Mother ( $\chi^2=3.23$ ,  $df=3$ ), Weight of mother ( $\chi^2=7.06$ ,  $df=4$ ), Nourishment the mother ( $\chi^2=3.96$ ,  $df=3$ ), Pregnancy complication ( $\chi^2=1.71$ ,  $df=2$ ) and Types of labour ( $\chi^2=2.19$ ,  $df=1$ ).

#### CONCLUSION:

The study concluded that the pain perception was significantly lower among sample subjects in experimental group than control group. Thus, Relaxed Breathing Exercise is effective in reducing labour pain perception during the first stage of labour among Primigravida mothers

#### RECOMMENDATION:

Based on the results of the study, the following recommendations were made.

1. A follow-up study could be conducted.
2. Similar study can be conducted as a comparative study between Primigravida and multigravida women in different settings.
3. A similar study could be conducted on multiparous women to know the effectiveness.
4. A comparative study could be conducted with other non-pharmacological measures of pain relief.

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