A Comparative Study to Assess the Effectiveness of Relaxation versus Breathing Techniques on Labour Pain Relief among 1st Stage of NVD Primi Mothers at Selected Hospitals

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Abstract: *Childbirth, also known as labor and delivery, is the ending of a pregnancy by one or more babies leaving a woman's uterus. Childbirth is a life-turning event in the most basic sense of the word. It means not only giving birth to a new life, but also becoming something new a parent. This study was based on Quantitative research approach. Systemic random sampling technique. True experimental post-test-only-control group design . In this study included 30 samples. Based on the objectives and the hypothesis the data were analyzed by using various statistical tests. Analysis of data showed that there is significant difference between the experimental group and control group. The calculated 't'test values are much higher than the tabulated values. Hence it is statistically interpreted that the breathing technique and relaxation therapy on labour pain among 1st stage of NVD primi mothers at selected hospitals. In this study breathing technique was very effective to reduce labor pain than the relaxation therapy.*

Keywords: Effectiveness, Breathing technique, Relaxation therapy, labor pain, NVD primi mothers

1. Introduction

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

Labor is a physiological phenomenon, and its end is associated with pain, fear, anxiety, and even fear of death for mothers. Child delivery is a multi-dimensional process with physical, emotional, social, physiological, cultural, and psychological dimensions. Childbirth can be a critical and sometimes painful experience for women.[1]

Mother can soothe herself with attention focusing device such as relaxation, slowed breathing and can supply herself with calming sights to look at and special companions to comfort her. Perhaps mothers choose to concentrate on so called left brain (rotational) activities counting to herself, pacing or patterning her breathing, focusing on particular pictures, or listening to her partner count time on a watch. Practicing lots of strategies midstream can help her get through the painful contraction and prevent her from tensing up in anticipation of future pain.[2]

For several decades, childbirth educators have focused on the alleviation or reduction of pain and suffering during the childbearing experience. Wide arrays of non pharmacological pain relief measures, as well as pharmacological interventions, are presently available to women in labor. Relaxation, breathing technique, positioning, guided imagery.[3]

Shallow and panic breathing are common when a person is frightened or is in a state of stress. During labour, if mother are stressed, she might start panic breathing which would mean less flow of oxygen for baby. Moreover, mother will start feeling like headed and exhausted as well since mother will not be getting the amount of oxygen. This can cause to lose control of mother body and make labour a very hard process.[4]

However, breathing in a rhythmic manner during labour helps in increasing the flow of oxygen in the body. This ensures that there is a plenty of oxygen available for both mother and baby during this crucial phase. In addition to this, employing a breathing technique would also make it easier for mother to deal with the concentrations that are a part and parcel of the labor process.

2. Literature Review

Akshaykumari Jhala 2017. "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.)". Assessing the effect of Lamaze breathing on labor pain in primigravida mothers. 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. 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.[5]

Sylvia T. Brown, et;al;(2001) They conducted the study. "Women's Evaluation of Intrapartum Nonpharmacological

Pain Relief Methods Used during Labor". Retrospective, descriptive survey design study examined which non pharmacologic pain-relief techniques labouring women use most often and the effectiveness of the chosen techniques. Of the 10 nonpharmacological strategies rated by the sample (N = 46), breathing techniques, relaxation, acupressure, and massage were found to be the most effective. However, no specific technique or techniques were helpful for all participants. The results shown that the participants reported breathing techniques as the most effective pain relieving technique used during labour, followed by relaxation, acupressure, and massage.[6]

Problem definition: "A comparative study to assess the effectiveness of relaxation versus breathing techniques on labour pain relief among 1st stage of nvd primi mothers at selected hospitals."

3. Methodology

- **Research approach:** A quantitative approach was used for this study
- **Research design:** true experimental post-test-only-control group design.
- **Variables under study:** (1) Independent variable: **"breathing technique and relaxation therapy."**. (2) Dependent variable: **"Labor pain"**.
- **Setting:** The study was conducted in selected hospital
- **Population:** In this study, the population included intranatal mothers. **Target population** consists of **all 1st stage of NVD primi mothers in selected maternity hospital. Accessible population 1st stage of NVD primi mothers in selected maternity hospital. Who fulfill the inclusive and exclusive criteria.**
- **Sample and sampling technique**
- **Sample:** In the present study sample **1st stage of NVD primi mothers in selected hospital.**
- **Sample size**: The sample size consists of 30, in this 15 sample undergone relaxation therapy and 15 sample undergone breathing technique whose fulfill the inclusive and exclusive criteria.

Sampling technique: Systemic random sampling technique

Inclusion criteria- Students who are
- Initial time of labor primi mothers admitted in labor room
- Able to answer the question and co-operative for the therapy.
- Able to understand Hindi, English, Marathi.

Exclusion criteria- Students who are
- Not willing to participate.
- Admitted with fulfill dilatation of the cervix
- Postnatal mothers

Scoring mode: Mild- 0 to4 **Moderate** 5 to 7**, severe**- 8-10.

Prepration of the tool Section I:- Demographic data, Section II Modified colour coded numerical pain scale.

4. Results

4.1 Organization of the data

The collected data is tabulated, analyzed, organized and presented under the following sections: The finding suggest that there was significant difference in the average labour pain level among 1st stage of NVD primi mothers in experimental and control group

Pain	Frequency	Mean	S.D.	t value	P value
Experimental	15	6.26	1.48	4.36	0.001
Control	15	4.80	1.26		

The comparisons of the labour pain relief among 1st stage of NVD primi mothers in experimental and control group were done by the unpaired t test. The average pain score among experimental group was 6.26 with standard deviation of 1.48. The average pain score among control group was 4.80 with standard deviation of 1.26. The test statistics value of the **unpaired t test was 4.36 with p value 0.001**. Shows that, there was significant difference in the average labour pain level among 1st stage of NVD primi mothers in experimental and control group.

5. Discussion

Findings of the study were based on objective of the study. The aim of the study was to assess the effectiveness of relaxation therapy versus breathing technique on labor pain among 1st stage of NVD primi mothers.

1) **Findings related the effect of relaxation therapy on labour pain relief among 1st stage of NVD primi mothers.**
Findings related to level of labor pain among 1st stage of NVD primi mothers experimental group (relaxation therapy) in experimental group. Shows that, out of 15 sample, 3 (20 %) had severe labor pain, were 10 (66.67%) sample had moderate labor pain and 2 (13.33%) sample had mild labor pain.

2) **Findings related the effect of breathing techniques on labour pain relief among 1st stage of NVD primi mothers.**
Findings related to level of labor pain among 1st stage of NVD primi mothers control group (breathing technique) in control group. Shows that, out of 15 samples, o (0.00%) had severe labor pain were 9(60.00%) sample had moderate pain and 6(40.00%) sample had mild labor pain.

3) **Findings related the effective therapy on labour pain relief by comparing relaxation therapy and breathing technique among 1st stage of NVD primi mothers.**
This table 3.1 shows that the experimental group (relaxation therapy) mean score 6.26(1.48) was more than the control group (breathing technique) mean score 4.80(1.26) the 't' value was greater than the table value for the H1 hypothesis was accepted.

1st stage of NVD primi mothers in experimental group (relaxation therapy),3(20%) sample were severe labor pain but in control group (breathing technique) 0 (0.00%) were

severe means the control group no any severe pain so that the breathing technique had reduce more the labor pain than relaxation therapy.

4) Findings related the association between the levels of pain relief with their demographic variables among 1st stage of NVD primi mothers.

In association between the occupation of NVD primi mothers labor pain value is 0.017 is less than the 'p' value 0.05. So there is **significant** association between labor pain and their occupation.

In association between the duration of marriage of NVD primi mothers labor pain value is 0.001 is less than the 'p' value 0.05. So there is **significant** association between labor pain and their duration of marriage.

In association between the income of NVD primi mothers labor pain value is 0.042 is less than the 'p' value 0.05. So there is **significant** association between labor pain and their income.

In association between the source of previous knowledge about relaxation therapy of NVD primi mothers labor pain value is 0.031 is less than 'p' value 0.05. So there is **significant** between labor pain and their source of previous knowledge about relaxation therapy.

There is **significant** association between the levels of pain relief with their demographic variables among 1st stage of NVD primi mothers. Such as **occupation, duration of marriage, income , source of previous knowledge** about relaxation therapy.

There is **no significant** association between the level of pain relief with their demographic variables among 1st stage of NVD primi mothers such as **age, education, religion, types of marriage, previous experience about relaxation therapy, previous experience about breathing technique, source of previous knowledge about breathing technique**.

6. Conclusion

Comparative studies assess the effectiveness of relaxation therapy versus breathing technique on labor pain among 1st stage of NVD primi mothers at selected hospital. The antenatal mothers need to know about the relaxation therapy and breathing technique on labor pain relief.

Visualization is a technique women use to help them manage labor and delivery. Many childbirth educators teach visualization as a way to help women relax and to reduce fear and pain during labor. Woman mind is a very powerful tool, and using it to woman advantage during labor will help mother get the most out of mothers experience. Using visualization techniques can reduce fear and release tension, which can promote relaxation and, in turn, reduce pain.

However, breathing in a rhythmic manner during labor helps in increasing the flow of oxygen in the body. This ensures that there is a plenty of oxygen available for both mother and baby during this crucial phase. In addition to this, employing a breathing technique would also make it easier for mother to deal with the concentrations that are a part and parcel of the labor process.

1st stage of NVD primi mothers in experimental group (relaxation therapy), 3(20%) sample were severe labor pain but in control group (breathing technique) 0 (0.00%) were severe means the control group no any severe pain so that the breathing technique had reduce more the labor pain than relaxation therapy.

The following conclusion can be drawn from the study:
1) Breathing technique is more effective to reduce labor pain than the relaxation therapy.
2) There is significant association between the levels of pain relief with their demographic variables among 1st stage of NVD primi mothers. Such as occupation, duration of marriage, income, source of previous knowledge about relaxation therapy.
3) There is no significant association between the level of pain relief with their demographic variables among 1st stage of NVD primi mothers such as age, education, religion, types of marriage, previous experience about relaxation therapy, previous experience about breathing technique, source of previous knowledge about breathing technique.

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