



## THE EFFECTIVENESS OF SELECTED BREATHING EXERCISE ON LABOUR PAIN PERCEPTION IN TERMS OF BEHAVIORAL RESPONSE AMONG PRIMI GRAVIDA MOTHERS DURING FIRST STAGE OF LABOUR IN SELECTED HOSPITAL AT AURANGABAD

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### ABSTRACT

Being parent is one of the happiest movements in a life. Breathing exercises is one of the most common methods used for natural pain relief during childbirth. In the first stage of labour, such breathing techniques can promote physical relaxation by reducing muscle tension and promotes emotional relaxation by reducing pain and well oxygenated muscles function more effectively and efficiently. Therefore the present study was aimed to assess the level of behavioral response among primigravida mothers during first stage of labour in experimental group and control group.

**Material and methods:** The design was adopted true experimental design with pre-test post-test control group design was used for this study. The sample consisted of 80 mothers, 40 in experimental group and 40 in control group. The purposive sampling technique was used to select the samples. The data was collected by using base line Performa and Observational check list.

**Result:** unpaired 't' test shows that there is a significant difference between mean post-test behavioral score of experimental group & control group in I, II & III observation. The Computed value ( $t = 21.456, 24.797, 32.094$  respectively). Hence the result was found highly significant difference.

**Conclusion:** The study concluded that breathing exercise is an effective non pharmacological intervention for reducing labor pain perception.

**KEYWORDS :** Effectiveness, breathing exercise, Labor pain perception, Primi mothers, First stage of labor.

### INTRODUCTION;

Being parent is one of the happiest movements in a life. For most of the mothers it also an important role to play ever, the experience of pregnancy is a time of transition in life women's but for many woman, this transition can have emotional difficulty.<sup>1</sup>

Labour is an emotional experience and involves both physiological and psychological mechanisms. The experience of labour is complex and subjective.<sup>2</sup> Labor is characterized by regular, painful uterine contractions that increase in frequency and intensity and are associated with progressive cervical effacement and dilatation. Pain can be managed both pharmacologically and non-pharmacologically. It is not surprising that many mothers try to avoid invasive and pharmacological methods of pain relief in labour and seek complementary therapies which have minimal side effects and are easy to administer.<sup>3</sup>

Breathing exercises is one of the most common methods used for natural pain relief during childbirth. In the first stage of labour, such breathing techniques can promote physical relaxation by reducing muscle tension and promotes emotional relaxation by reducing pain and well oxygenated muscles function more effectively and efficiently.<sup>4</sup>

Child birth is never the same and it differs between women and between labours. It's said that the greatest pain that mother Nature inflicts upon a human is during labour. Studies have shown that around 70% of women experience awful labour and around 10% of them experience an almost painless labour.<sup>5</sup> the positive perception of child birth experience can decrease anxiety and depression in primimother. Thus important role of nurses have to play is to relieve pain during labour.<sup>6</sup>

Focused breathing might work by interrupting the transmission of pain signals to brain by giving something positive to focus on. It may also work by stimulating the release of endorphins, which are natural pain relieving hormones useful in relieving overall physical pain and aches,

and by helping reframe thinking process about labor so that view it as positive, productive and manageable.<sup>7</sup> Other benefits are breathing becomes an automatic response to pain. The mother remains in a more relaxed state and will respond more positively to the onset of pain. Increased oxygen provides more strength and energy for both the mother and baby and encourage to stay 'present' and active during labor.<sup>8</sup>

### OBJECTIVES OF THE STUDY

- 1) To assess the level of behavioral response among primigravida mothers during first stage of labour in experimental group and control group.
- 2) To evaluate effectiveness of breathing exercise on labour pain perception in terms of behavioral response among primigravida mothers during first stage of labour in experimental group control group
- 3) To determine the association between selected demographic variables and behavioral response score among primigravid mothers during first stage of labour.

### MATERIAL AND METHODS:

**Research Design:** True experimental design with pre-test post-test control group design was used for this study.

**RESEARCH SETTING:** The study was conducted at Dr. Hedgewar Hospital, Aurangabad.

**Sample size:** The study consists of 80 primigravid mothers, 40 in experimental group and 40 in the control group, those who are admitted in Dr. Hedgewar Hospital Aurangabad.

### INCLUSION CRITERIA:

Primigravida mothers who:

- 1) Are between 32 to 40 weeks' of gestation
- 2) Are in first stage of labour
- 3) Are willing to participate in the study and follow instructions.

### EXCLUSION CRITERIA:

**Primigravida mothers with**

- 1) High risk pregnancy & Prolonged and precipitated labour.

**Description of the tool:** The tool consisted of base line proforma & Observational check.

**Data collection process:**

The sample was selected as per the sampling criteria and divided into experimental group and control group. The pre-test score of the behavioral response was assessed in three observation and recorded in both experimental and control group. Then, in the experimental group, breathing exercise technique was demonstrated. After that the women were instructed to practice breathing exercise technique during each contraction. The women perform breathing technique during each contraction from the beginning of contraction and continued till contraction ceased. As the time passes the intensity of contraction increases, the pain level and behavioral response is also varies. Therefore three observations in 3-5 cm, 6-8cm and 9-10 cm of cervical dilation are recorded. 3 pretest and 3 posttest were recorded by using observational check list during contraction. Similarly, in the control group, 3 pre and post test scores were recorded using same observational check list at different interval without practicing breathing exercise.

**PLAN FOR DATA ANALYSIS:**

The obtained data was planned to be analysed by both descriptive and inferential statistics on the basis of objectives and hypotheses of the study.

**RESULT AND DISCUSSION:**

The data was analysed and presented under the following section.

**Table 1: Mean difference and 't' value of behavioral response score of primigravida mother during first stage of labour in experimental group**

Group	Observation	Mean	Median	SD	SEM	Paired T Test	P' Value	Interference
Experimental	Pre Test 1	11.35	11	1.21	0.19	15.5467	0.0001	S
	Post test 1	6.33	6	1.67	0.26			
	Pre Test 2	14.08	14	2.92	0.46	15.1458	0.0001	S
	Post test 2	6.78	7	1.44	0.23			
	Pre Test 3	14.78	15.5	3.67	0.58	10.1636	0.0001	S
	Post test 3	8.23	8	1.46	0.23			

The data presented in the table 1 using paired 't' test shows that there is a significant difference between mean pretest behavioral score ( 11.35±1.21, 14.08 ±2.92 & 14.78 ±3.670 and post-test behavioral score ( 6.33±1.67, 6.78 ±1.44 7

Section I: Frequency and percentage distribution of primi gravida mothers according to the selected demographic variable.

Section II: Effectiveness of breathing exercise on labour pain perception in terms of behavioral response among primi gravida mothers.

Section IV: Association between the pre-test score of behavioral response and selected demographic variable of primigravida mother during first stage of labour.

**Section I: Frequency and percentage distribution of primi gravida mothers according to the selected demographic variable.**

Majority of 22% and 19 % of primi mothers in experimental group and control group were belongs to the age group of 26-30 years. The majority 29% in experimental and 23% in control group of primigravida mothers were graduates. With regard to occupation the distribution of primi mothers 21% in experimental and 13% in control group were house wife. And 24% in experimental and 25 % in control group were belongs to nuclear family. Majority of mothers in experimental (23%) and 25 % in control group resided in urban area. In experimental group 265 mothers were taken 4-8 hours and 29% in control group were taken 9-12 hours to complete the first stage of labour. All primi mothers had no any source of information regarding breathing exercise.

**Section II: Distribution pain perception level in terms of behavioral response among primi gravida mothers during first stage of labour in experimental and control group.**

8.23±1.46) in I,II & III observation of primi gravida mother during first stage of labour in experimental group(t = 15.546, 15.145, 10.163 respectively).

**Section III: Effectiveness of breathing exercise on behavioral response of primigravida mother during first stage of labour.**

Group	Observation	Mean	Median	SD	SEM	Un-Paired T Test	P' Value	Interference
Experiment	I Post Test	6.33	6	1.67	0.26	21.4565	0.001	S
Control		13.85	14	1.46	0.23			
Experiment	II Post Test	6.78	7	1.44	0.23	24.7979	0.001	S
Control		14.8	15	1.45	0.23			
Experiment	III Post Test	8.23	8	1.46	0.23	32.0948	0.0001	S
Control		16.98	17	0.92	0.15			

**Table 2 : Mean post test score of pain score of behavioral checklist of experimental and control group.**

The data presented in the table 3 using unpaired 't' test shows that there is a significant difference between mean post-test behavioral score of experimental group & control group in first, second and third observation. The Computed' value (t = 21.456, 24.797, 32.094 respectively). Hence the result found that there was highly significant difference observed.

**Section IV: Association between the pre-test score of behavioral response and selected demographic variable of primigravida mother during first stage of labour.**

There is no association between pre-test score of behavioral response among primigravida mothers during first stage of

labour with selected demographic variables. Hence it can be inferred that H<sub>0</sub> is rejected and null hypothesis is accepted.

**CONCLUSION:**

As women go into labour, the body briefly goes into a panic response due to the stress of the moment. This induces panic breathing which is shallow and rapid. It has been found that breathing and relaxation techniques significantly reduce the intensity of labour pains and women to have more control of their bodies and help them handle contractions better.

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