

# Study Protocol

**To assess the effectiveness of breathing exercise on labour pain and behavioral response of primi gravida mothers during first stage of labour, at selected Maternity hospitals.**

## **Abstract:**

**Background of the study:** Labour is tough and headaches occur, however mother's bodies are designed to supply birth. The shape of the pelvis, hormones, effective muscle mass and further all paintings collectively that may help mother to convey her child into the globe - before, within the course of and after childbirth.

**Objectives:** 1. To assess pain intensity level among the Primi gravida mothers during first stage of labour in experimental and control group. 2. To assess the behavioral response of primi gravid mothers during 1st stage of labour in control and Experimental group. 3. To determine the effectiveness of breathing exercise on labour pain among primi gravida mothers during first stage of labour. 4. To determine the effectiveness of breathing exercise on behavioral response among primi gravida mothers during first stage of labour. 5. To determine the association between selected demographic variables and pain of primi gravida mothers during first stage of labour. 6. To determine the association between selected demographic variables and behavioral response of prim gravid mothers during first stage of labour.

**Material and methods:** The design of this research study was based on a True Experimental research design with a pre-test and post-test control group. A total of 400 mothers were included in the study (200 in experimental group and 200 in control group). The samples were chosen using the probability simple random sampling technique. The data will be gathered using Baseline Performa and an observational check list.

## **Expected Results:**

At selected Maternity hospitals, this study will assess the effects of respiratory exercise on Childbirth pain and behavioral responses of primi gravida moms during the early stage of childbirth. After intervention, the degree of discomfort in primi gravida women should be reduced, and their behavioral reaction should improve.

## **Conclusion:**

Final conclusion is drawn from the ultimate results of the statistical review.

**KEYWORDS:** Assess, Breathing exercise, Behavioral response, Effectiveness, Labour pain and Primigravida mothers.

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## **INTRODUCTION:**

Delivery is one among the most spectacular and remarkable phase in women's life. It does not simply remember if the child is that the 1st, 2nd or the 3rd.<sup>1</sup> Each event is one-of-a-kind and includes a celebration. Labour is the process of a viable fetus being released from the uterus after 28 weeks or more of gestation. Most mothers are unable to enjoy the experience of childbirth due to their dread and worry.<sup>2</sup> Despite the fact that labour is widely regarded as one of the most painful occurrences in human life. No two women experience the same level of labour pain, and no two labors are the same. The intensity of labour pain varies from mother to mother and even from one child bearing to other childbearing.

According to studies, over 70% of mothers have a painful labour, whereas approximately 10% have a painless labour.<sup>3</sup>

#### **BACKGROUND OF THE STUDY:**

Pain is an extremely terrible and personal sensation that cannot be shared. Even while pain is a universal experience, its exact nature is unknown. The contraction of the uterus muscles, as well as the pressure on the cervix, induce pain during labour.<sup>4</sup> Cramping in the belly, groin and back, as well as a fatigued, achy feeling throughout the body, are the most common symptoms. Some ladies get even more pain in their sides and thighs. The pinnacle's pressure on the bladder and bowels, as well as stretching of the passage and vaginal canal, are other causes of pain during labor.<sup>3</sup>

#### **NEED OF THE STUDY:**

Pregnancy can be a time of massive alternate for a mother, now no longer simply in phrases of her bodily appearance, however additionally in phrases of her emotional state. Each girl enters labour with a hard and fast of expectations: dread, preparation, absolute threshold, character and behavioral makeup, and approaches of experiencing what is taking place in her body, all of which have to be met. Although brief in assessment to the duration of pregnancy, the time of labour and start is the maximum dramatic and massive degree of pregnancy. 1The maximum severe ache that women's undergo is labour ache. Labor ache is likewise stimulated via way of means of parity; primi gravida girls have greater ache at some point of labour than multigravida mothers.<sup>2</sup>

Caesarean sections are getting greater not unusual place in each advanced and growing countries, consistent with current studies. Due to mental reasons, the bulk of girls (sixty eight percent) are soliciting for a caesarean section. Women who acquired sufficient mental guide and rest strategies had a decrease price of caesarean delivery, with 38 % choosing a normal vaginal delivery. Relaxation strategies, in particular respiration exercises, had introduced 50% discount in cesarean for mental indications.<sup>3</sup>

#### **METHODOLOGY:-**

- **Research approach:-**An interventional research approach.
- **Research design:** -The True Experimental research design with pre-test post-test control group was selected.
- **Study Setting:** -Maternity hospitals at Wardha selected for conduct research study.
- **Sampling technique:** -Probability Simple random sampling technique.
- **Sample:-**Primigravida mothers ( 1st stage of childbirth).
- **Sample size :-** 200 in Experimental Group and 200 in the Control Group(Total 400)
- **Sample selection Criteria:-**

#### **Inclusion Criteria:-**

Primigravida mothers who are:

- 1) Mother in 1st stage of normal labour.
- 2) Mother in childbirth with Cervical Dilatation more than 4 cm
- 3) Admitted in the Labour ward for normal delivery.
- 4) Willing to participate
- 5) Able to communicate in Hindi, Marathi and English,

#### **Exclusion Criteria:-**

Primigravida mothers who are:

- 1) Mother with high risk pregnancy like hypertension, diabetes, multiple pregnancies etc.
- 2) Prolonged and precipitated labour.

#### **DISCRIPTION OF TOOLS:**

The tools consist of 3 sections:

Section 1: Baseline Performa.(Age, education, religion, occupation)

Section 2: FLAAC pain assessment scale tool(0-10) to assess the pain.(Updated September 03-2009 which is standardized tool)

Section3: VAS (Visual Analogue Scale), behavioral response(pain assessment) scale which is standardized tool.

#### **RANDOMIZATION**

The entire primigravida mother will be assigned randomly by lottery method.

#### **INTERVENTION**

Assess the effectiveness of pace breathing exercises during 1st stage of childbirth among primi gravida mother under the guidance of the Professor of Obstetrics and Gynecological Nursing and Professor and HOD of Obstetrics and Gynecological Dept. JNMC.

#### **STATISTICAL ANALYSIS**

Descriptive and inferential statistics use for statistical analysis with the help of statistician.

#### **ETHICAL ASPECTS**

The Institutional Ethics Committee (IEC) (Ref. No. DMIMS (DU)/IEC/2017-18/6777) was approved this study and the it will be conducted in accordance with the ethical guidelines prescribed by IEC on Human Research.

#### **EXPECTED OUTCOME/ RESULTS:**

The primary goal of this study is to determine the effectiveness of breathing exercises in primi gravida moms during the initial stage of labour. We anticipate to see a reduction in the severity of labour pain and an improvement in women' behavioral responses after the intervention.

#### **DISCUSSION:**

Breathing workout can be a herbal way to relieve labour ache. Mothers who've used respiration workout in the course of baby start are highly happy with this herbal method. <sup>6</sup> So it is precious to deliver complementary ache remedy techniques to ladies in childbirth. Most childbirth training instructions and maximum books on childbirth gift rest strategies, collectively with various rhythmic respiration styles meant to enhance and sell rest or to deliver distraction from ache. They're additionally accustomed beautify a woman's feel of manipulate.

A comparable observes become carried out (Jayabharathi. B) to evaluate the effectiveness of relative nursing interventions (consisting of respiration workout, rubdown and positions) on ache in the course of labour amongst primi gravida moms. In the course of this observe the post-evaluation degree of labour ache notion of primi moms confirmed a median of 3.33 with SD of 1.86 in experimental **institution and common of 5.69 with SD of 2.59 up to speed institutions.** The common (3.33) of experimental institution become relatively much less than the suggest (5.69) of manipulate institution. Therefore the observe concluded that decided on nursing interventions (consisting of respiration workout, rubdown and positions) to the primi moms have been powerful in decreasing their labour ache notion in experimental institution. <sup>14</sup>

This observe become like some other findings carried out in Coimbatore indicating there has been a importance distinction among the suggest ache innumerable experimental institution (4.28) become now no longer as much as the suggest ache innumerable

manipulate institution (6.22) which indicates that that the sluggish paced respiration initiated through the investigator become powerful in discount of ache in the course of the number one level of labour. <sup>15</sup>

Another observe similar to this observe can be a observe carried out inside the town of Goiania, inside the nation of Goias (GO), Brazil, the use of individualized help with steering and encouragement of respiration sporting activities and muscle rest strategies in the course of hard work, it have been observed that inside the lively segment of hard work there has been a predominance of ache; with the upward push in ache tolerance in the course of hard work, encouragement, force, and bodily and psycho-emotional wellbeing took place therein period. <sup>18</sup>

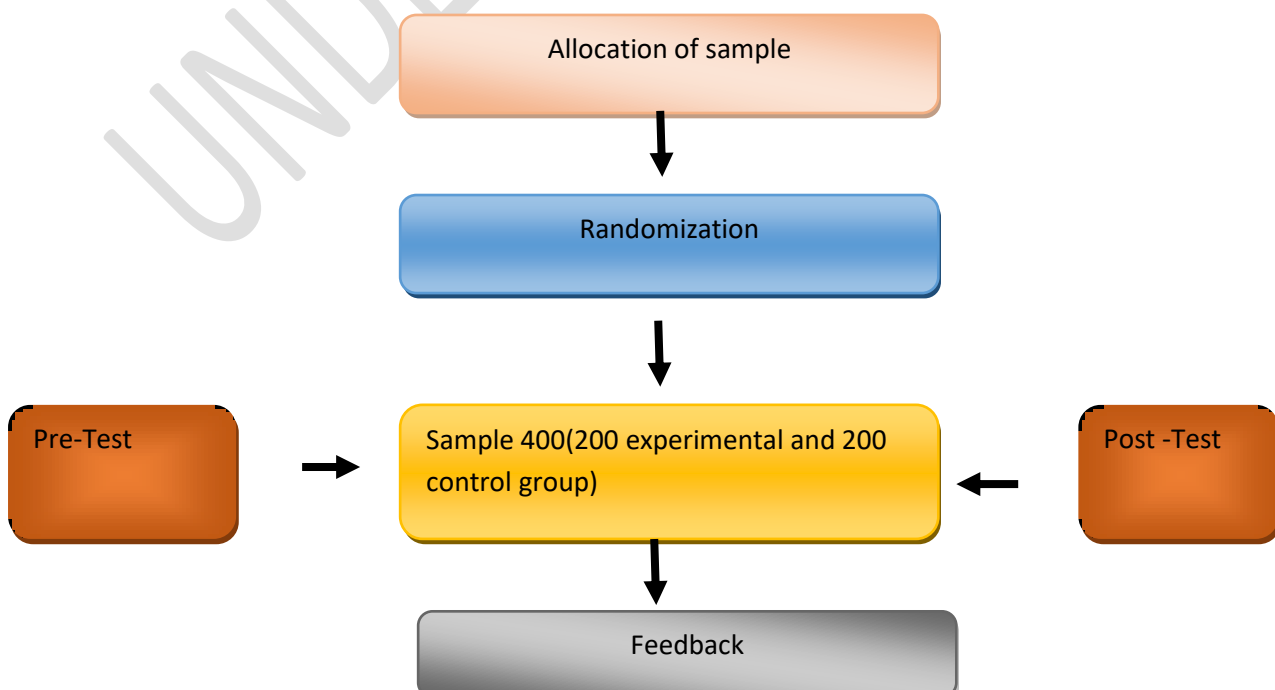
Another observes the use of techniques of innovative muscle rest confirmed massive discount inside the degree of ache in parturient ladies subjected to the existing technique. 16 A survey of girls inside the u. s. who gave start in 2005 observed that **49%** of the respondents used respiration strategies, and of these, seventy seven percentage rated them as "very" or "somewhat" beneficial, even as 22 percentage rated them as "now no longer very beneficial" or "now no longer beneficial at all" .<sup>17</sup>

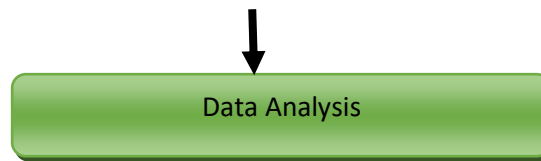
This locating can also additionally replicate variations inside the first-rate of the coaching obtained through the girls, or suggest that respiration strategies are not beneficial for everybody. A survey of British ladies observed that 88 percentages of women who mentioned the use of rest strategies observed them to be "good" or "very good". <sup>17</sup> Findings of the observe absolutely suggest that respiration workout is a superb complementary approach for inducing a remedy from labour ache ( $p < 0.01$  as consistent with t-test). Hence the null speculation is rejected at 0.05 degree of importance. So it is concluded respiration workout is powerful in reducing depth of labour ache. So it'll be powerful nursing control for womens in labour.

#### CONCLUSION:

From the statistical analysis, a conclusion will be drawn.

#### FIGURE AND TABLE:





**Fig 1- Schematic diagram of study methodology**

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