



## EFFECTIVENESS OF RHYTHMIC BREATHING EXERCISE ON PAIN & COPING AMONG PRIMIGRAVIDA WOMEN DURING FIRST STAGE OF LABOUR AT SELECTED HOSPITAL

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### ABSTRACT

*“Childbirth is a time when a woman's power and strength emerge full force, but it is also a vulnerable time, and a time of many challenges presenting opportunities for to assess her courage.”*

*Childbirth can be a unique and exciting time for a woman, although labour is often described as an intensely painful experience. Childbirth pain is a natural phenomenon that occurs due to subjective, multidimensional responses to sensory stimuli during labour and delivery Lowe (2002). Studies have revealed that there are a number of non-pharmacological methods which can help a woman to relax during contractions. Breathing techniques, such as rhythmic breathing, can centre birthing women and focus their mental state. A pregnant woman who breathes properly, in a pattern or rhythm during her labour, 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. The theory behind childbirth breathing patterns is based on the concentration required to focus on your breathing. During a contraction, your thought process is redirected from a pain response such as tension and breath holding to a learned relaxed breathing response.*

**Keywords :** Primigravida ,Rhythmic breathing exercise, Pain , Coping , First stage of labour

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### INTRODUCTION

#### STATEMENT OF PROBLEM:-

A study to assess the effectiveness of Rhythmic breathing exercise on pain & coping among primigravid women during first stage of labour at selected hospital in Durg District.

#### OBJECTIVES:-

1. To assess the level of pain & coping among primigravid women during first stage of labour in experimental & control group.
2. To assess the effect of rhythmic breathing exercise on pain & coping among primigravid women during first stage of labour.
3. To compare the level of pain & coping among primigravid women during first stage of labour between experimental & control groups.

4. To find out the association between level of pain & coping among primigravid women during first stage of labour with selected demographic variables.

**HYPOTHESIS:-**

- H1 There will be a significant difference in the level of pain & coping after rhythmic breathing exercise among primigravid women in first stage of labour in the experimental group.
- H2 There will be significant association between level of pain & coping among primigravid women during first stage of labour with their selected demographic variables.

**OPERATIONAL DEFINITION :**

- **Study** :- An activity of learning about something.
- **Assess** :-Assess means to determine the level of pain & coping among primigravid women in first stage of labour.
- **Effectiveness** :- Effectiveness is the extent to which the intervention provided (rhythmic breathing exercise) meets the intended purpose of reducing pain & improving the coping mechanism among primigravid women in labour.
- **Rhythmic breathing exercise** :- Rhythmic breathing is breathing using a recurring pattern
- **Pain**:-Pain refers to a personal & private, sensation of hurt
- **Coping**:- Coping refers to all the efforts used by primigravid women to overcome stress due to painful uterine contractions.
- **Primigravidae**:- Refers to a woman who become pregnant for the first time
- **First stage labour** :- It commences with the onset of labour and terminates with the full dilatation of the cervix (10 cm).

**MATERIALS AND METHODS**

A true experimental research design was used. Simple random sampling method was used to draw 60 samples. 30 subjects in were kept in experimental group & 30 in control group. Data was collected by structured rating scale , The tool comprises of 3 section:

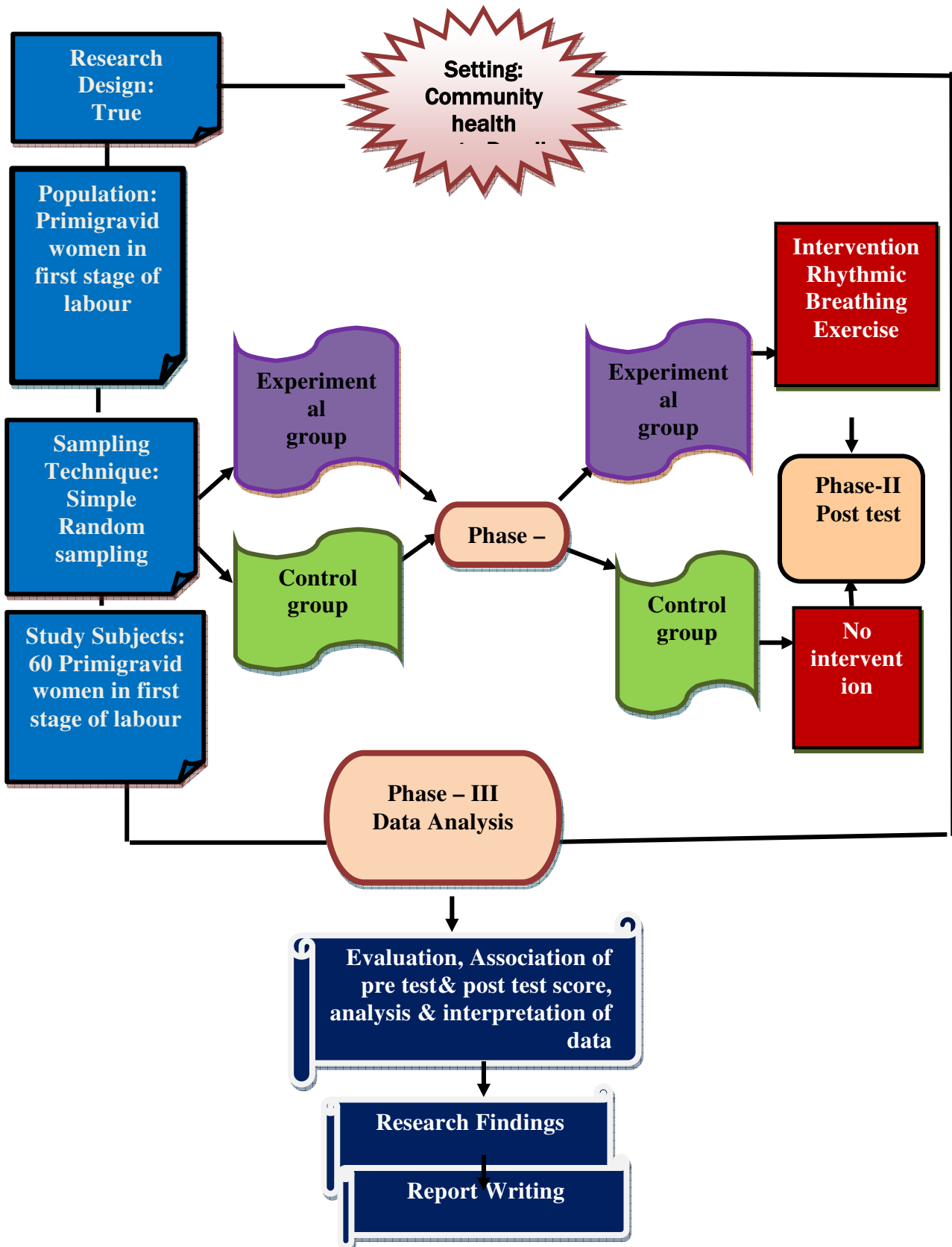
**Section -1** – Demographic variables of primigravid women in first stage of labour.

**Section -2** – Structured rating scale to assess level of coping

**Section -3** – Structured rating scale to assess level of pain

Pre test for assessing pain & coping among primigravid women in both experimental & control group was done. Procedure of performing rhythmic breathing exercise was taught to mothers in experimental group. An observational checklist was maintained at 15 minutes interval for 1 hour to find out whether mothers are carrying out the breathing exercise regularly or not. Post test for assessing pain & coping among primigravid women in both experimental & control group was done after 1 hour of administering of intervention in experimental group. The reliability of the tool was found to be 0.81, 0.84 which indicates that the tool was reliable.

Fig. 1 schematic representation of research design

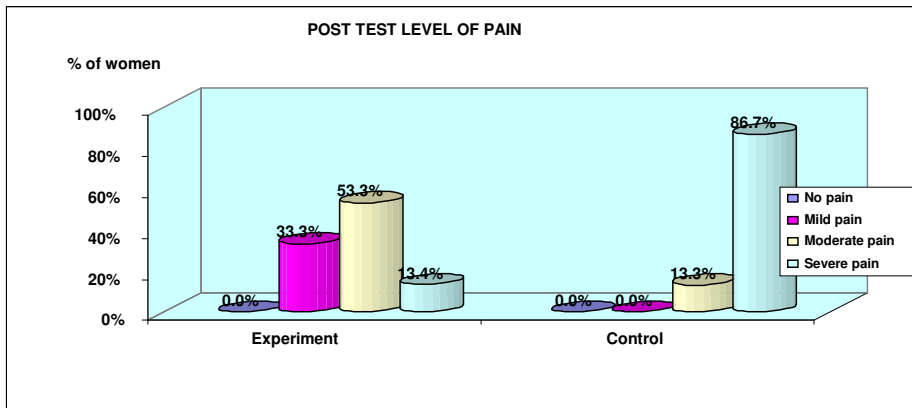


## RESULTS AND DISCUSSION

Descriptive & inferential statistics were used for data analysis, result of the study revealed that:-

1. The results for experiment group pre test level of coping shows that, 16(53.0%) of the women are not coping, 14(46.7%) of them moderately coping and none of them are having good coping. The mean score is of 8.37 with standard deviation of 1.56 & in post test experiment group, 7(23.3%) of the women having moderately coping, 23(76.7%) of them having good coping and none of them are having not coping.
2. In control group pretest results for level of coping shows that, 15(50.0%) of the women are not coping well, 15 (50.0%) of them moderately coping and none of them are having good coping. The mean score is of 8.60 with standard deviation of 1.81 & in post test control group, 46.7% of the women are having no coping, 53.3% of them are moderately coping and none of them are having good coping
3. In Experiment group post test results for level of pain reveals that, 4(13.3%) of the women are having moderate pain, 26(86.7%) of them having severe pain and none of them are having no or mild pain. The mean score is of 7.67 with standard deviation of 0.88 & in post test experiment group, 10(33.3%) of the women are having mild pain, 16(53.3%) of the women are having moderate pain score, 4(13.4%) of them having severe pain score and none of them are having no pain score.
4. In control group post test results for level of pain shows that, 4(13.3%) of the women are having moderate pain, 26(86.7%) of them having severe pain and none of them are having no or mild pain score. The mean score is of 7.57 with standard deviation of 0.89 & in post test control group, 4(13.3%) of the women are having moderate pain score, 26(86.7%) of them having severe pain score and none of them are having no or mild pain score. The mean score is of 7.60 with standard deviation of 0.68.
5. Effectiveness of rhythmic breathing exercise during first stage of labour. In experimental & control group pre test mean value is of 8.37, post test mean value is of 18.80 and the t value is 27.06. In post test there is a difference(58) between experimental & control group at  $p=0.001$  level.
6. Demographic variables like age, education and previous antenatal visits are significantly associated with their post test level of coping. Age is significant at  $p=0.04$ , education is significant at  $p=0.02$  & previous antenatal visit is significant at  $p=0.05$  level. Statistical significance was analyzed using Pearson chi square test/Yates corrected chi square test/Fishers exact test.
7. Fig.2 Cylindrical diagram showing percentage distribution of subjects according to post test level of pain.

**Fig.2** Cylindrical diagram showing percentage distribution of subjects according to post test level of pain.



### CONCLUSION

As the post test level of coping is increased & pain perception is decreased in experimental group as compared to control group, it is evident that the coping level of primigravid women increases & pain level decreases with rhythmic breathing exercise in first stage of labour. Hence the researcher emphasizes on use of rhythmic breathing exercise as a pain relief measure in maternity hospitals during first stage of labour in primigravid women.

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