



A Quasi Experimental Study To Assess The Effectiveness Of Rhythmic Breathing Exercise On Pain Perception In Primi Gravida During The First Stage Of Labor.

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OBJECTIVES OF THE STUDY

- To assess pain intensity level among the among the primi gravida mother during first stage of labor in experimental and control group.
- To determine the effective of breathing exercise on labor pain among primi gravida mother during first stage in experimental group.
- To determine the association between pain perceptions of primi gravida mother during first stage of labor in experimental group with selected demographic variables.

BACKGROUND OF THE STUDY

Child birth is one of the most marvelous and memorable segment in women's life. It does not really matter if child is first, second or the third. Each experience is unique and calls for a celebration. Labor is a natural process by which a viable fetus, at the end of 28 weeks or more is expelled from the uterus .The fear and anxiety about child birth often prevents most women from enjoying this experience . Although labor id often thought of as one of the most painful event in human life. No two women have the same degree of labor pain and no two labors are exactly alike. Labor pain ranges widely from women to women and event from pregnancy. Studies have shown that around 70% of women experience awful labor and around 10 % of them experience an almost painless.

Rhythmic breathing helps to release the endorphins into the body which are extremely useful in relieving overall physical pain and aches. Rhythmic breathing is performed at approximately one half of the women's normal breathing rate. Rhythmic breathing aids in relaxation and provides optional oxygenation. In the first stage of labor, such breathing techniques can promote relaxation of the abdominal muscles and thereby increases the size of the abdominal cavity. This approach lessens discomfort generated by friction between the uterus and abdominal wall during contractions.

Rhythmic breathing technique is a deeper, slower way of breathing, which involves filling the lungs to its full capacity when inhaling and then pushing out as much air as possible when exhaling. These breathing techniques are used only during contraction. In between contraction women has to relax to conserve energy where breathing should be breathing exercises does not require equipment and machinery, it require efficient child birth educator and the willingness to practice the exercises on the part of pregnant women since the breathing exercise are easy to practice and help in promoting positive outcome, the researcher felt the need to educate primi gravida mothers to practice slow paced breathing during first stage of labor to reduce labor pain.

AASUMPTIONS

- Rhythmic breathing exercise reduces the pain level among the primi gravida mother.
- Rhythmic breathing exercise has no adverse effect on women on outcome of labor.
- The perception of labor pain differs with each woman in labor.

HYPOTHESIS

H 1 – There will be significant difference in labor pain perception among experimental group and control group sample before, during and after contraction.

DELIMITATIONS

This study will be limited to primi gravida mother who are in first stage of labor admitted in selected government hospital, Ghaziabad.

CONCEPTUAL FRAME WORK

The conceptual frame work for this study was derived from general system theory Ludwig von bertlanfly, 1968. According to general system theory system is a set of interacting parts in a boundary which makes the system work well to achieve its overall objectives. General system theory is useful in breaking the whole process in to essential task to assure goal realization. The number of parts of the system totally dependent on what is needed to accomplishment the goal or purposes. The goal necessary for any system to function. The aim of the study is to assess the effectiveness of rhythmic exercise on pain perception in primi gravida mothers during the first stage of labor.

REVIEW OF LITERATURE

Section 1 – Review of literature related to the effectiveness of rhythmic exercise on pain among primi gravida mother during first stage of labor.

Section 2 - Review of literature related to pain perception of women in labor.

RESEARCH APPROACH

Quantitative approach will be used for the study.

RESEARCH DESIGN

Pre test post test control group design & experimental group.

VARIABLES

Variables are character that can have more than one value, the three categories of variables discussed in the present study were.

Dependent Variable

Primi gravida mother during the first stage of labor.

Independent variable

Rhythmic breathing exercise on pain perception.

Demographic variables: Age, religion, education, occupation, type of family, family income per month, living area.

SETTING OF THE STUDY

The study was conducted at selected Government hospital in Ghaziabad.

POPULATION

Target population

The target population of this study was primi gravida mothers in labor, above 37 weeks of gestation who were admitted in labor room with true labor pain.

Accessible population

Primi gravida mothers first stage of labor at selected Government hospital, Ghaziabad.

SAMPLE SIZE

Sample size of present study was 60 primi gravida women.

CRITERIA FOR SAMPLE SELECTION

(1) INCLUSION CRITERIA

- Primi gravida mothers in labor that were above 37 weeks of gestation with true labor pain.
- Who were in the active phase of first stage of labor? (More than 4cm of cervical dilatation)
- Who were in the age group of 20-35 years?
- Who were not having any Obstetrics and medical complications?
- Who were willing to participate in the study?
- Who can understand and speak Hindi.

(2) EXCLUSION CRITERIA

- Primi gravida in labor who are associate with the medical field.
- Pre- term labor initiates before complication 37 weeks.
- Mothers who are chronically ill.
- Mothers who are not willing to participate.

SAMPLE TECHNIQUE

Purposive sampling technique was used for the present study.

DEVELOPMENT OF THE TOOLS

The instrument used in this study was a structured teaching method which consisted of the following sections.

Section A: Demographic variables

Section B: Visual Analog pain perception scale

Section C: Check list of Rhythmic breathing exercise procedure.

CONTENT VALIDITY OF THE TOOL

The prepared mother demographic profile, Visual Analog Scale & Rhythmic breathing exercise tool were given to experts. Among the validations, seven experts were five doctors in field of Obstetrics & Gynecology. Two experts were the field of nursing. Experts were requested to judge the item for their clarity, relatedness, meaningfulness and content .New changes was made according to their suggestions, considering the practicability of tool. Reorganization of the item of the tools was done finally and validated tools were ready to ascertain the data from the sample subjects.

ETHICAL CONSIDERATION

- Written permission was sought from the head of department of Obstetrics & Gynecology department from the hospital.
- Purpose of the study was explained to the study subjects & their verbal consent was taken.
- Professional norm were maintained during procedure.
- There was no harm caused to the study subjects or their babies during procedure.
- Autonomy & anonymity was maintained during procedure.

DATA COLLECTION PROCEDURE

The data collection was done for four weeks in selected government hospital, Ghaziabad.

Every day on average 2-3 subjects by purposive sampling for experiential and control group. The teaching on rhythmic breathing was conducted for the experimental group after starting the true labor pain for 10 minutes. After that women were asked to practice it during every contraction under supervision. Post assessment of pain perception was done for 2 hours than after 4 hours.

Assessment were done for control and experimental group then intervention on were given on rhythmic breathing exercise to primi gravida mothers only to experimental group the sample were divided equally 30 experimental and control group.

RESULT

This chapter deals with the summary of the findings with results.

This section describes the demographic characteristics of the sample subjects under study. The sample consisted of 60 patients (30 experimental groups and 30 control group). The data obtained describes the characteristics pertaining to their age, education qualification, occupation, and family income, and religion, type of family and living of area.

In the study all the primi gravida mothers in experimental and control group were in age group between 15-30 years. In experimental group 15-20 age group 3.3%, 20-25 age group 3.3% , 25-30 age group 3.3% in control group 15-20 age group 3.3%, 20-25 age group 66.7% ,25-30 age group 30% in control group.

In the study education level in experimental group primary 10%, middle 30% , intermediate 23.3% , graduation , 13.3%, post graduation 23.35% and control group primary 10% , middle 26.7% , intermediate 26.7% , graduation, 16.7% post graduation 16.7%. And no formal 3.3%.

In the study occupation in experimental group housewife 80%, private job 16.7%, government job 3.3% , and in control group housewife 80% , private job 16.7% , and government job 3.3%.

In the study religion majority is Hindu 56.7%, Muslim 36.75%, Christian 6.7% and in control group religion majority is Hindu 63.3%, Muslim 36.7%.

In the study type of family in experimental group nuclear family 46.7%, joint family 43.3% others 10% , control group nuclear family 33.3% joint family 50% other 16.7%.

In the study family income per month in experimental group 10,001 Rs – 15,000 Rs/month 40%, 15,001 Rs – 20,000 Rs/month 53.3%, 20,001 Rs – above 6.7% and in control group 10,001Rs – 15,000 Rs/month 43.3%, 15,001 Rs - 20,000 Rs/month 53.3% , 20,001 Rs – above 3.3%.

In the study family living area in experimental group rural area 23.3%, urban area 53.3%, and tribal area 23.3% and in control group rural area 43.3%, urban area 43.3%, and tribal area 13.3%.

Percentages distribution of the primi gravida mothers as per breathing technique performed before, during and after contraction in experimental group.

The researcher had used three types of breathing to be performed by the parturient before, during and after contraction namely cleaning breathing, focal breathing and again cleansing breathing. The data presented in

Table 2 represent the percentage distribution of the parturient as per breathing technique performed before, during and after contraction in experimental group. The data further shows that while performing cleansing breath before contraction maximum of the samples (70%) were able to take a deep breath by nose , 100% were able to blow out through the mouth 63% were able to repeat the procedure in a rhythmic manner and 53% of the parturient were able to take a breath before and after contraction . While performing the focal breathing during contraction 63% were able to breathe in for a count of 4 sec, 63% were able to hold the breath for a moment between inspiration and expiration, 60% were able to slowly breaths out for double the count, 86% were able to do during each contraction and 83% only could able to concentrate on her breath. While performing cleansing breath again after the contraction it is seen from the data presented in above table that 100% were able to take a deep breath by nose, 100% were able to blow out through the mouth, 56.6% were able to repeat the procedure in a rhythmic manner and 80% of the parturient were able to take a breath before and after contraction.

The frequency distribution of the parturient in control group and experimental group in pre- test , post – test 1 & 2 as per their pain perception from the data presented in figure 1 it is evident that the control group parturient experienced severe and very severe pain in all the test i.e. pre-test , post – test 1 (after 2 hours) & post – test 2 (after 4 hours) from the data presented in Figure 2 it is evident that the experimental group parturient experienced severe and very severe pain in pretest but in posttest 1 (after 2 hours) & posttest 2 (aster 4 hours) very few the parturient experienced very severe pain.

The findings related to chi- Square & P – Value association between pain perceptions of primi gravida mothers in experimental group with selected demographic variables. Initial time, after 2 hours & after 4 hours.

SUMMARY

The present experimental study aims to assess the effectiveness of rhythmic exercise on pain perception of primi gravida mother during first stage of labor in M.M.G.Government hospital at Ghaziabad 2018.

The conceptual framework for the study was **general system model**.

A review of related research and literature and expert's opinion & validation helped the investigator to conceptualize the study and to using the visual analog scale tool to measure facial pain score of primi gravida patient undergoing rhythmic breathing Exercise in M.M.G. hospital in Ghaziabad . Tool used in the study included three sections one section for demographic variable and second section of visual analog scale and third is rhythmic breathing exercise. Pilot study was done in M.M.G. Hospital Ghaziabad. The sample sample was selected by purposive sampling. A sample of 60 patients was selected and the study was conducted for three weeks.

Data analysis was done using descriptive and inferential statistics. The level of significance was 0.05. Chi-Square was used to find out association between post exercise score selected demographic variables. Results collected from the study revealed the effectiveness of rhythmic breathing Exercise in primi gravida mother during first stage of labor on pain.

CONCLUSION

The aim of the study to find the effectiveness of rhythm breathing exercise on the reduction labor pain among primi gravida mothers in a selected EST hospital Ghaziabad . The result of this present study clearly indicated that the use of rhythm breathing exercise is an effective method of reducing pain perception among

women during labor. As a non pharmacological nursing intervention, rhythm breathing exercise is easy to administer, cost effective, harmless, does not require much training and it is appealing to the mother. This intervention may be used by health care fractioned medical, nursing staff and students nurse as a part of their routine when providing care with women during the labor process. It is hoped that the finding added knowledge to the existing body of literature on research related to non pharmacologic management during labor and childbirth.

