



EFFECTIVENESS OF PACED BREATHING EXERCISE ON LABOUR PAIN AND ANXIETY AMONG PRIMI MOTHERS DURING FIRST STAGE OF LABOUR IN SELECTED HOSPITALS AT KOLLAM

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ABSTRACT

A quasi experimental study was conducted to assess the effect of paced breathing exercise on pain and anxiety among primi mothers during first stage of labour. The objectives of the study were to assess the effect of paced breathing exercise on pain among primi mothers during first stage of labour, to assess the effect of paced breathing exercise on anxiety among primi mothers during first stage of labour, to find the correlation between labour pain and anxiety among primi mothers during first stage of labour, to find the association between pain among primi mothers during first stage of labour and selected demographic variables and to find the association between anxiety among primi mothers during first stage of labour and selected demographic variables. Pretest posttest control group design was used in this study. Purposive sampling was used to select 60 samples. Pretest was conducted using Numerical Pain Rating Scale and Spielberg State Trait Anxiety Scale. For experimental group, paced breathing exercise was given. Control group received routine nursing care. The findings of the study showed that the mean posttest pain score of experimental group was lower than the control group and the mean posttest anxiety score of experimental group was lower than control group and it was significant at 0.05 level of significance. The findings of the study shows that there is mild negligible correlation (0.06) between pain and anxiety. The findings of the study shows that there was significant association between the pain with age, augmentation of labour and intensity of contraction and no significant association between anxiety with other variables. The study concludes that paced breathing exercise was effective in reducing pain and anxiety among primi mothers during first stage of labour.

KEYWORDS: Paced breathing exercise; primi mothers; first stage of labour.

INTRODUCTION

Being a woman is very special. Nature takes her through a series of transitions from her birth, which includes menarche, pregnancy, labour, motherhood, and menopause. Each of these stages makes her to represent different roles and stands for different phases of her life which includes both physical and psychological changes. Out of all these roles, the role of mother is so special.^[1]

Studies of pain have demonstrated that the anticipation of pain can raise the anxiety level significantly.^[3] Although pregnancy is often portrayed as a time of great joy, that's not the reality for all women.^[7] Anxiety during childbirth presents a problem for health care providers because of the resulting physiologic response.^[8] There are so many reasons why a mother may be experiencing any degree of stress and anxiety in the months leading up to and during childbirth. Anxiety is commonly associated

with increased pain during labour and may modify labour pain through physiologic and psychological mechanism. Fear of pain may be a component of labour related anxiety and has high correlation with labour pain during first stage of labour.^[5]

The use of complementary and alternative medicine has become popular with consumers worldwide. Recent review of 14 studies with large sample sizes (N>200) on the use of complementary and alternative medicine in pregnancy identified a prevalence rate ranging from 1% to 87%. The most commonly used complementary and alternative therapies associated with providing pain management in labour can be categorized into mind-body interventions, alternative medical practice, such as manual healing methods, breathing exercise, pharmacologic and biologic treatments.^[6]

OBJECTIVES OF THE STUDY

The Objectives of The Study Were

- To assess the effectiveness of paced breathing exercise on labour pain among primi mothers during first stage of labour in selected hospitals in Kollam.
- To assess the effectiveness of paced breathing exercise on anxiety among primi mothers during first stage of labour in selected hospitals in Kollam.
- To find the correlation between labour pain and anxiety among primi mothers during first stage of labour.
- To find the association between labour pain among primi mothers during first stage of labour and selected demographic variables such as age, education, occupation, type of family, support system, habit of doing exercise, previous knowledge regarding management of labour pain, weeks of gestation, augmentation of labour, intensity of contractions.
- To find the association between anxiety among primi mothers during first stage of labour and selected demographic variables such as age, education, occupation, type of family, support system, habit of doing exercise, previous knowledge regarding management of labour pain, weeks of gestation, augmentation of labour, intensity of contractions.

MATERIALS AND METHODS

Study design

Quasi experimental pretest posttest control group design.

Research setting

Labour rooms of Bishop Benziger Hospital, Kollam and LMS Hospital, Kundara.

Sample and Sampling technique

The sample consists of 60 primi mothers who met sampling and inclusion criteria.

Purposive sampling was used.

Inclusion criteria

- Mothers admitted for labour after 37 weeks of gestation with 4-7cm cervical dilatation in active phase.
- Singleton pregnancy with cephalic presentation.
- Those are willing to participate in the study.

Exclusion criteria

- Mothers who will take any kinds of analgesia or anaesthesia for pain relief during first stage of labour.

TOOLS and TECHNIQUES *The following tools were used in this study*

Section A: Demographic proforma

Section B: Numerical Pain Rating Scale

Section C: Adapted Spielberg State Trait Anxiety Scale

Data collection process

The purpose of the study was explained and informed consent was obtained from samples. Samples were asked to give baseline information. For experimental group, two or three sessions of Paced breathing exercise was given during onset of each contraction for a period of 20 minutes. Control group received routine nursing care.

Posttest was conducted immediately after giving each sessions of paced breathing using the same tool for both the experimental and control group.

Statistical analysis *The data collected were analysed according to the objectives. The data were analyzed using descriptive statistics and inferential statistics.*

RESULTS

Description of pain among primi mothers during first stage of labour

60% of samples had severe pain and 40% of samples had moderate pain and the mean pretest pain score was 7.0 with standard deviation of 1.23.

Description of anxiety among primi mothers during first stage of labour

58.33% of samples has severe anxiety and 41.66% of samples had moderate anxiety and the mean pretest anxiety score was 61.5 with standard deviation of 9.94.

Effect of Paced Breathing Exercise on Pain Among Primi Mothers During First Stage of Labour

The mean posttest pain score of experimental group (5.03 ± 1.2) was lower than the pretest pain score (7.2 ± 1.33) and calculated 't' value (8.66) is greater than the table value at 0.05 level of significance. It indicates that there was a significant difference between mean posttest pain scores of experimental and control group. So the present study shows that paced breathing exercise was effective in reducing pain among primi mothers during first stage of labour.

Effect of Paced Breathing Exercise on Anxiety Among Primi Mothers During First Stage of Labour

The present study shows that paced breathing exercise was not much effective in reducing anxiety among primi mothers during first stage of labour.

Correlation Between Labour Pain and Anxiety of Experimental Group Among Primi Mothers During First Stage of Labour

The Karl pearsons correlation coefficient was computed to determine the correlation between labour pain and anxiety and the pretest scores of labour pain and anxiety shows mild negligible correlation, in which when pain reduces there was mild decrease in anxiety scores.

Association between pain of primi mothers and selected demographic variables

The association between the pain and selected demographic variables were computed using chi-square

test. As the calculated chi-square value of age, augmentation of labour, intensity of contractions were (4.1),(6.5),(8.58) was more than the table value at 0.05 level of significance. As the calculated chi-square value other variables were less than the table value there was no significant association between pain and these demographic variables.

Association Between Anxiety Of Primi Mothers And Selected Demographic Variables

As the calculated chi-square value of demographic variables were less than the table value there was no significant association between anxiety and these demographic variables.

DISCUSSION

To Assess The Effect of Paced Breathing Exercise on Pain Among Primi Mothers During First Stage of Labour

The findings of the present study was supported by a study conducted to assess the effect of video based on breathing exercises during labour on pain perception and duration of labour among the primi mothers admitted in tertiary care hospital, India in 2013.⁷ The study concluded that the practice of breathing exercises during labour help to reduce pain perception and duration of first and second stage of labour. The results of the present study also showed Paced breathing exercise is effective in reducing pain during first stage of labour.

The findings of the present study in consistent with above mentioned studies reveals that Paced breathing exercise was effective in reducing pain among primi mothers during first stage of labour.

To Assess The Effect of Paced Breathing Exercise on Anxiety Among Primi Mothers During First Stage of Labour

The findings of the present study in above mentioned studies reveals that Paced breathing exercise was effective in reducing anxiety among primi mothers during first stage of labour but my study revealed that paced breathing exercise didn't have much effect in reducing anxiety.

To Find The Correlation Between Labour Pain And Anxiety Among Primi Mothers During First Stage of Labour

The findings of the present study was supported by another study conducted on effectiveness of music therapy on anxiety level and pain perception in primipara mothers during first stage of labour in selected hospitals of Odisha in 2014.⁸ Findings of the study revealed that music therapy would be very helpful in alleviating anxiety level and pain perception in primipara mothers during first stage of labour. The present study found that Paced breathing exercise was effective in reducing anxiety among primigravidae during first stage of labour.

To Find The Association Between Pain Among Primi Mothers During First Stage of Labour and Selected Demographic Variables

The findings of the present study was supported by an another study conducted in Mangalore to evaluate the effectiveness of breathing exercises on labour pain among primi mothers.⁹ The chi-square value of selected demographic variables like age, education, occupation, family income, type of family and gestational age are found not significant at 0.05 level of significance. In the present study also chi-square value of age, education, occupation, type of family are not found significant at 0.05 level of significance, but showed a significant association among pain and previous knowledge, weeks of gestation and intensity of contractions.

To find the association between anxiety among primi mothers during first stage of labour and selected demographic variables

The findings of the present study was supported by a study conducted to assess the effectiveness of breathing exercise on anxiety level on labour pain among primi mothers at selected hospitals in Mangalore, in 2013.¹⁰ The chi-square value of selected demographic variables are not found at 0.05 level of significance. So there is no association between the pretest scores in Group I Group II with the selected demographic variables.

The demographic variables for the present revealed that there is no significant association between anxiety and selected demographic variables.

CONCLUSION

The present study was aimed to find out the effect of paced breathing exercise on pain and anxiety among primi mothers during first stage of labour. The study results shows that the paced breathing exercise was effective in reducing labour pain than anxiety among primi mothers.

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