

EFFECTIVENESS OF PATTERNED BREATHING TECHNIQUE IN REDUCTION OF PAIN DURING FIRST STAGE OF LABOUR AMONG PRIMIGRAVIDAS.



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INTRODUCTION:

During nine months of pregnancy the women has to undergo so many changes physiologically and psychologically. Pregnancy is one of the biggest fantasies and it changes into a worse nightmare when labour pain develops. Labour can seem to be like a painful experience for many pregnant women. During labour the woman is about to undergo one of the most meaningful and stressful events of her life. Indeed, pregnancy is a very crucial stage of motherhood and almost all women want to choose giving birth naturally without the many external intervention involved. Of course, she can also help herself to make her labour and delivery easier. The adequacy of her preparation for childbirth, including the coping mechanism, communication and support systems that have been established will be put to test.

STATEMENT:

‘A study to assess the effectiveness of Patterned Breathing Technique in reduction of Pain during first stage of labour among primigravidas admitted in labour units of selected hospitals of Pune city.’

OBJECTIVES OF THE STUDY WERE:

- To assess pain level among primigravida women during first stage of labour in experimental group and control group before practicing patterned breathing technique.
- To assess pain level among primigravida women during first stage of labour in experimental group and control group after practicing patterned breathing technique.
- To compare the pain level among primigravida women in experimental and control group.

RESEARCH APPROACH

This study was based on evaluative quasi experimental approach.

RESEARCH DESIGN

A Non Equivalent Pre-test Post-test control group design was adopted for the study.

SAMPLING TECHNIQUE

Non-Probability purposive sampling technique was followed to select 60 primigravida women in the first stage of labour in selected hospitals of Pune city. Then the subjects were assigned to the experimental group (30) and control group (30). Inclusion criteria were primigravida women who were in active phase of labour (with cervical dilatation of 4 cm), undergoing normal vaginal birth, were ready to participate in the study and could understand Marathi and English.

TOOLS

- Interview Schedule for collecting Demographic and base line data.
- Standardized, Numeric Pain Intensity Scale (NPIS) for assessment of pain.
- An Observation Checklist for assessment of progress of labour was also recorded.
- Content validity of the tool was ensured by thirteen experts from the field of Obstetrics & Gynaecology, two Obstetrician and Gynaecologists; nine nursing experts, one expert from physiotherapy and one from Biostatistics. The Numeric Pain Intensity Scale (NPIS), used for the study is a standardized scale used for the assessment of pain intensity. Therefore, further establishment of validity for NPIS was not considered necessary. Suggestions proposed were incorporated in tool and appropriate changes were made.

RELIABILITY:

As, Numeric Pain Intensity Scale (NPIS) is already a standardized reliable tool. Therefore, further establishment of reliability was not considered necessary.

A Pilot study was conducted in the labour room of selected hospital of Pune city. As per laid down criteria 10 samples were selected by non-probability purposive sampling who were available during the study. These samples were not included in the final study.

Data gathering process for final study was done from in selected hospitals of Pune. The samples were selected according to the inclusion criteria from those who were admitted in the labour room for delivery. After explaining the objectives and purpose of the study to the primigravida women, written consent was obtained from each one of them for participation in the study. Pre-test score (on admission) of the pain level was assessed and recorded in both the experimental and control group.

Then, in the experimental group, Patterned Breathing Technique was demonstrated and instructed by the investigator to the primigravida women in the labour room. After that the women were instructed to practice Patterned breathing technique during each contraction. The women practiced Patterned breathing technique during each contraction from the beginning of contraction and continued till the contraction ceased, in front of the investigator. As, the variations in the pain level could not be completely assessed by a single post test observation because as the time passes the intensity of uterine contractions also increases; hence the pain level would also increase. Therefore, 5 observations (at 1, 2, 3, 4 & 5 hours) at the interval of every one hour were recorded.

5 post tests scores were recorded using Numeric Pain Intensity Scale for assessment of pain level at the interval of every 1 hour (O2, O3, O4, O5 and O6). Similarly, in the control group, 5 post tests scores were recorded using the same Numeric Pain Intensity Scale for assessment of pain level at the interval of every 1 hour (O2, O3, O4, O5 and O6) without practicing Patterned breathing technique.

THE MAJOR FINDINGS OF THE STUDY

Findings related to sample characteristics:

- Majority of the women (80%) were registered cases, whereas only (20%) of women were unregistered.
- Most of the women (71.67 %) were in the age group of 22-25 years of age, whereas only (25%) were in between age group 18-21.
- (91.67%) of the women had spontaneous delivery, whereas only (8.33%) had induced delivery.
- Most of the women (71.67%) were educated upto SSC. whereas (28.33%) were educated upto HSC.
- Majority of the women (60%) belonged to Hindu

religion, whereas (31.67%) and (8.33%) belonged to Muslim and Christian religion.

- Most of the women (83.33%) were housewives whereas some (11.67%) were in service.
- Majority of the women (83.33%) had a monthly income between Rs.30001-6000 whereas only few (10%) had an income between Rs.6001-9000.
- (73.33%) of the women belonged to joint family and (26.67%) of women belonged to nuclear family.

Findings regarding assessment of pain level primigravida women in experimental group

- The mean pre test score (on admission) and for overall mean post test scores (at 1st, 2nd, 3rd, 4th and 5th hour) of pain level before and after practicing Patterned breathing technique during first stage of labour, among primigravida women in experimental group, has p-value 0.00, which is less than 0.05 level of significance.

Therefore, it was concluded that on admission the pain level during the active phase of first stage of labour, was less after that with the progress of labour there was significant increase in the level of pain every hourly. The level of pain on admission was mild then increased moderately at the end of 5th hour.

Findings regarding assessment of pain level primigravida women in control group

- The pre test score (on admission) and overall mean post test scores (at 1st, 2nd, 3rd, 4th and 5th hour) of pain level without practicing Patterned breathing technique during first stage of labour, among primigravida women in control group, has p-value 0.00, which is less than 0.05 level of significance.

Therefore, it was concluded that on admission the pain level during the active phase of first stage of labour, the pain level was less after that as the labour progressed there was a significant increase in the level of pain every hourly. And the level of pain on admission was mild then increased severely at the end of 5th hour

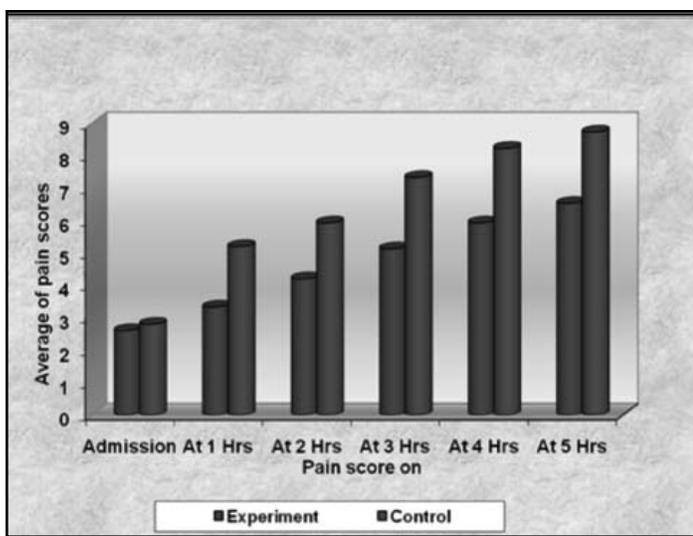
Findings regarding comparison of primigravida women's pain level in experimental and control group.

- The mean pre-test score of pain level in primigravida women before practicing Patterned breathing technique in experimental was (2.6) which is less than control group which is (2.8) with a mean difference of (0.2), which is not significant as evident from 'z' value of (1.68) which is less than 0.05 level of significance.
- Therefore, it was concluded that on admission before practicing Patterned breathing technique the level of

pain experienced by the primigravida women in experimental and control group was almost same with no significant difference.

- The overall mean post test scores of pain level at 1st, 2nd, 3rd, 4th and 5th hour after practicing Patterned breathing technique among primigravida women during first stage of labour, in experimental and control group has p-value of 0.000, which is less than 0.05 level of significance.
- Therefore it was concluded that there was significant reduction in pain level among primigravida women in experimental group after practicing selected Patterned breathing technique during first stage of labour as compared to the pain level among women in control group without practicing Patterned breathing technique
- The pain level experienced at the end of 5th hour, among the women in experimental group was moderate (6-7) and in control group the women experienced severe (8-9) level of pain

Figure 3.1:
Diagram showing significant difference pre test and post test scores of pain level with regards to comparison of pain level before and after practicing patterned breathing technique in experimental and control group



The above mentioned graph showed that on admission the average pain level in experimental and control group was mild (2-3). After that, every hourly the average pain level experienced by the women in the experimental group was less as compared to the women in control group and lastly, at 5th hour the average pain level among the women in experimental group was moderate (6-7) as compared to the women in control group, which was severe (8-9).

CONCLUSION:

Therefore it was concluded from the statistical tests that practicing selected Patterned breathing technique was effective in reduction of pain among primigravida women during first stage of labour. Analysis of data showed that there was significant difference between pre test and post test pain scores of pain level in experimental group after practicing Patterned breathing technique and without practicing Patterned breathing technique control group.

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