A STUDY TO EVALUATE THE EFFECT OF BREATHING
EXERCISE, BACK MASSAGE AND MUSIC THERAPY ON
LABOUR PAIN AMONG PRIMI GRAVIDA WOMEN IN FIRST
STAGE LABOUR AT PES GENERAL HOSPITAL, KUPPAM,
CHITTOOR DISTRICT, ANDHRA PRADESH.

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ABSTRACT

Pain in labour is a ubiquitous phenomenon. All the primi’s will experience labor pain in their life. Childbearing is a natural physiological event and is the most unforgettable experience in a woman’s life and labour is the most critical period. For several decades the childbirth educators have focused on the alleviation or reduction of pain and suffering during the childbirth. Objectives : 1. To assess the pre-test level of labour pain between control and experimental group. 2. To administer the breathing exercise, back massage and music therapy in experimental group. 3. To assess the post test level of labour pain between control and experimental group. 4. To compare the post test level of labour pain in experimental and control group among primigravida women admitted in first stage labour. 5. To associate the post test level of labour pain with the selected demographic variables. Materials & Methods: A Quasi experimental research design was used in the study with experimental & control group to assess the effectiveness of breathing exercise, back massage, music therapy among primigravida women. 50primigravida women were selected by using non probability convenient sampling technique in PES hospital, Kuppam. The conceptual framework used in the study was based on the modified model of Wiedenbach’s helping art of clinical nursing theory. Result: The analysis depicted that in the experimental group 14 (56%) had mild, annoying pain 10 (40%) had Nagging, Uncomfortable Troublesome pain, 1(4%) had Distressing, miserable pain. The analysis depicted that in the control group 1 (4%) had mild, annoying pain, 4 (16%) had Nagging, Uncomfortable Troublesome pain, 17 (68%) had Distressing, miserable pain, and 3(12%) had Intense, dreadful, horrible pain. The post test level of labour pain was compared between the experimental and control group and found that the most of the primigravida women had reduced pain level. The analysis reveals that the mean value 2.96 with SD 1.172 of experimental group following breathing exercise, back massage and music therapy and the mean value of 5.76 with SD 1.332 of control group projects ‘t’value of 4.264 is statistically significant at P=0.05 level. So the study concludes that intervention breathing exercise, back massage and music therapy were very effective in (reducing) coping the labour pain among primigravida women.

Keyword: Effect, Breathing Exercise, Back Massage, Music Therapy, Labour pain, primi gravida, First stage labour.

1. INTRODUCTION

Child birth is never the same and it may differ between women and between labour. It is said that the greatest pain that Mother Nature, inflicts upon a human is during labour.

The first priority in nursing care during labour is to assess maternal and fetal well-being with the progression of labour. Controlling the mother’s discomfort can ease the progression of labour, making the birth experience as pleasant as possible. The nurse must be alert to verbal and non-verbal expressions of the clients and family desires.

Relaxation is thought to increase pain tolerance through a number of mechanisms, including the
reduction of anxiety, increased blood flow and decreased muscle tone.

Relaxation techniques help to keep the mother’s body tension free to avoid excessive pain and discomfort. Relaxation techniques must be practiced before labour to be effective during labour. There are different relaxation techniques such as hypnosis, yoga, meditation, walking, massage or counter pressure, changing position, taking a bath or shower, music therapy, distracting yourself by counting or performing an activity that keeps your mind otherwise occupied.

Music can be a powerful distraction, enhances relaxation during labour, thereby reducing stress, anxiety and the perception of pain. It can be used to promote relaxation in early labour and to stimulate movement as labour progresses.

Around 70% of women experience awful labour and around 10% of them experience an almost painless labour. The remaining 20% women experience labour, which is neither horrible nor painless. More women are now requesting a pain free labour and ask for epidural analgesics. The disadvantage of epidural analgesics are lengthening of first stage of labour, less sensation of expulsive efforts and lengthens second stage of labour and increased instrumental delivery.

Pharmacological pain relief methods include administration of narcotics, sedatives, inhaling analgesic, pudendal, paracervical and spinal blockage and epidural anesthesia which has side effect. Pethidine which is commonly used during labour pain causes fetal respiratory depression especially if it is used 2 to 4 hour during labour prior to birth. Epidural anesthesia could lead to sympathetic blockage and consequently, decreased maternal cardiac output, bladder distension, prolongation of several stages of labour and catheterization. Nitroxide like all other anesthesia drugs, would pass the placenta and suppress fetal central nervous system.

The pain in labour has several unique features. It may cause anxiety and some level of fear. Some women go into labour wanting to experience natural child birth(labour and birth without interventions or pain medication). This approach may motivate a woman to “look beyond the pain” and to use breathing and relaxation techniques to work her way through the stages of labour.

Natural child birth may create a tremendous feeling of empowerment.

Non-pharmacological methods like relaxation, breathing techniques, positioning/movement, massage, hydrotherapy, hot/cold therapy, music, guided imagery, acupressure, and aromatherapy are some self-help comfort measures women may initiate during labour to achieve an effective coping level for their labour experience without any maternal and fetal complications.

The non-pharmacological approach to pain includes a wide variety of techniques to address not only the physical sensations of pain but also to prevent suffering by enhancing the psychoemotional and spiritual components of care. Pain is perceived as a side effect of a normal process, not a sign of damage, injury (or) abnormality. Rather than making the pain disappear, the midwives and other care givers assist the women to cope with it, build her self-confidence and maintain a sense of mastery and well being.

2. STATEMENT OF THE PROBLEM

A study to evaluate the effect of breathing exercise, back massage and music therapy on labour pain among primigravida women in first stage labour at PES general hospital, kuppam, Chittoor District, Andhra Pradesh.

3. OBJECTIVES OF THE STUDY

1. To assess the pre-test level of labour pain between control and experimental group
2. To administer the breathing exercise, back massage and music therapy in experimental group.
3. To assess the post test level of labour pain between control and experimental group.
4. To compare the post test level of labour pain in experimental and control group among primigravida women admitted in first stage labour.
5. To associate the post test level of labour pain with the selected demographic variables.

4. MATERIALS AND METHODS:

A Quasi experimental research design(pre-test and post test design) was used in the study with experimental & control group to assess the effectiveness of breathing exercise, back massage, music therapy among primigravida women in First stage labor room at PES general hospital,
Kuppam, Chittoor district, Andhra Pradesh. 50 Primigravida women who are in first stage of labour were selected by using non-probability convenience sampling technique. 25 primigravida women as experimental and 25 primigravida women as control group.

The data was collected within four weeks. Formal approval was obtained from the ethical committee of PESIMSR, Kuppam, Chittoor District, Andhra Pradesh. Investigator introduced to the participants of primigravida women and the study was explained to ensure better co-operation during the data collection period. Data was collected by using Demographic data and Modified Visual Analogue Scale (VAS) to assess the level of labour pain with scores ranging from 0-10.

The primigravida women who were on latent phase and active phase with 3-7 cm cervical dilatation were selected by using convenient sampling technique in the experimental and control group. The interventions were given to experimental group. Pretest level of pain was assessed using Modified Visual Analogue Scale and the intervention was given for 65 minutes i.e., by giving breathing exercise for 15 min with the interval of 10 minutes back massage was given for 15 minutes and with the interval of 10 min music therapy was given for 15 minutes then the post test level of labour pain were assessed using Modified Visual Analogue Scale in the experimental group. Post test observation on Modified Visual Analogue Scale was done 5 minutes after the intervention. The data was analysed and tabulated by using descriptive and inferential statistics

5. RESULTS AND CONCLUSION:

ASSESSMENT OF PRETEST LEVEL OF LABOUR PAIN IN EXPERIMENTAL AND CONTROL GROUP.

Table 1: Assessment of pretest level of labour pain in experimental and control group

<table>
<thead>
<tr>
<th>Pretest level of labour pain</th>
<th>Experimental group</th>
<th>Control group</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Freq</td>
<td>Percent(%)</td>
</tr>
<tr>
<td>No pain</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mild, annoying pain</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nagging, Uncomfortable</td>
<td>18</td>
<td>72</td>
</tr>
<tr>
<td>Troublesome pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distressing, miserable pain</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Intense, dreadful, horrible</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worst, possible, unbearable</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>excruciating pain</td>
<td></td>
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</tbody>
</table>

Fig no.1: Shows the pretest level of labour pain among primigravida women in experimental and control group
The analysis depicted that in the experimental group 18 (72%) had Nagging, Uncomfortable Troublesome pain, 7 (28%) had Distressing, miserable pain none of them had Intense, dreadful, horrible pain and Worst, possible, unbearable, excruciating pain.

The analysis depicted that in the control group none of them had no pain 3 (12%) had mild, annoying pain, 19 (76%) had Nagging, Uncomfortable Troublesome pain, 3 (12%) Distressing, miserable pain.

**ASSESSMENT OF POST TEST LEVEL OF LABOUR PAIN IN EXPERIMENTAL AND CONTROL GROUP.**

**Table 2.** represents frequency and distribution of posttest level of pain in the experimental and control group.

<table>
<thead>
<tr>
<th>POSTTEST LEVEL OF LABOUR PAIN</th>
<th>EXPERIMENTAL GROUP</th>
<th>CONTROL GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq n(25)</td>
<td>Percent(%)</td>
</tr>
<tr>
<td>No pain</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mild, annoying pain</td>
<td>14</td>
<td>56</td>
</tr>
<tr>
<td>Nagging, uncomfortable pain</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Distressing, miserable pain</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Intense, dreadful, horrible</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Worst, possible, unbearable</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>excruciating pain</td>
<td></td>
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</tr>
</tbody>
</table>

**Fig no.2 shows the posttest level of labour pain among primigravida women in experimental and control group.**

The analysis depicted that in the experimental group 14 (56%) had mild, annoying pain 10 (40%) had nagging, Uncomfortable Troublesome pain, 1 (4%) had Distressing, miserable pain.

The analysis depicted that in the control group 1 (4%) had mild, annoying pain, 4 (16%) had Nagging, Uncomfortable Troublesome pain, 17 (68%) had Distressing, miserable pain, and 3 (12%) had Intense, dreadful, horrible pain.

**COMPARISON OF POSTTEST LEVEL OF LABOUR PAIN AMONG PRIMIGRAVIDA WOMEN IN THE CONTROL GROUP AND EXPERIMENTAL GROUP FOLLOWING BREATHING EXERCISE, BACK MASSAGE AND MUSIC THERAPY.**

**Table 3:** comparison of post test level of labour pain among primi gravida women in the control group and experimental group following breathing exercise, back massage and music therapy.
The analysis reveals that the mean value 2.96 with SD 1.172 of experimental group following breathing exercise, back massage and music therapy and the mean value of 5.76 with SD 1.332 of control group projects ‘t’ value of 4.264 is statistically significant at P=0.05 level.

6. CONCLUSION:

The findings of the study were compared with the literature related to similar studies and it was concluded that breathing exercise, back massage and music therapy were effective on labour pain among primigravida women.

LIST OF REFERENCES

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