



ORIGINAL RESEARCH ARTICLE

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A PRE EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF MASSAGE THERAPY ON SEVERITY OF LABOUR PAINS AND ANXIETY AMONG PARTURIENT MOTHERS ADMITTED IN LABOUR ROOM DURING ACTIVE PHASE OF LABOUR IN SELECTED HOSPITAL, JALANDHAR, PUNJAB, 2017

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ABSTRACT

A Pre Experimental study to assess the effectiveness of massage therapy on severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour in selected hospitals, Jalandhar, Punjab. The aim of the study is to assess the effectiveness of massage therapy on severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour. Results depicted that the mean pre interventional score of severity of labour pains was 82.91 and mean post interventional score was 22.66. The calculated 't' value was 24.0039 which is significant at $p < 0.0001$. The mean pre interventional score of anxiety was 25.53 and mean post interventional score was 10.48. The calculated 't' value was 20.3378 which is significant at $p < 0.0001$. Hence the findings revealed that there was decrease in the severity of labour pains and anxiety, so the research hypothesis (H_1) was accepted.

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INTRODUCTION

Background of the study

"Birth is a pinnacle where women discover the courage to become mothers."

Anita Dimaan: Pain and its relief for women in labour has been subject of interest since the dawn of mankind. The women experience upto 57 del of pain during childbirth. This is similar to 20 bones getting fractured at a time. Severe pain makes stress response with harmful effects on both mother, and her fetus. The World Health Organization (WHO) (2009) has recommended that a parturient woman be allowed to have a birth companion she trusts and with whom she feels at ease. However, these recommendations do not tend to be followed

in facility-based births in many developing countries, including Islamic Republic of Iran. (Selvi Tamil Moses Arti. 2004). Massage therapy is manual manipulation of soft body tissues (muscle, connective tissue, tendons and ligaments) to reduce pain which simultaneously reduces anxiety. A pre experimental study conducted by Sethi D, Barnabas S (2016) to evaluate the effectiveness of back massage among pregnant woman in first stage of labour of labour pains admitted in labour room of a selected hospital, Ludhiana, Punjab, India. Modified labour pain relief tool & participant opinionnaire were used to assess the effectiveness of back massage. Present study revealed that pre-test mean score was 5.83 and post-test mean score was 3.75 which was found statistically highly significant at $p < 0.001$. Back massage had impact on pain level. Therefore, it was concluded that back massage was effective in reducing the level of pain. Tiffany Fields (1997-99).

Furthermore, there is lack of knowledge among staff nurses and awareness among parturient mothers regarding the benefits of massage therapy. In order to reduce the severity of labour pains and anxiety by altering hormones naturally, the old but refined practice of massage therapy had to be implemented to decrease the number of side effects that occurred due to use of pharmacological methods of pain relief. There are 60% chances of increased instrumental vaginal delivery on use of pharmacological methods of pain relief.

Need of the study

The separation of woman from the family is a factor to increase the feeling of isolation and stress in the mother. During labour, the increased anxiety level in mothers enhances the pain perception, increases the labour duration and secretion of catecholamine which reduces the blood flow in the uterus. A study conducted by C.Niven, K.Gijsberg (2015) on labour pain using McGill Pain questionnaire in 29 women during the first stage of labour, again 24-48 hours post-natally. Labour pain found on average to be severe. However, it varied greatly between subjects. In particular, one psychological factor – previous experience of pain was found to be strongly associated with perceived levels of labour pains. A descriptive study conducted by green (2016) on anxiety among 710 women about pain in labour and the study revealed that 67% of women were “very worried” 23% “bit worried” and 12% “not at all worried”. The pain in childbirth activate the sympathetic nervous system and resulting in changes in the blood pressure, respiration, skin colour and diaphoresis. Based on researcher’s own experience during posting, massaging the back of mother during labour provides a kind of therapeutic touch and psychological support and hence helps in reducing the severity of labour pains and anxiety. Hence the researcher felt the need to assess the effectiveness of massage therapy.

Objectives of the study

- To assess the pre interventional severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour.
- To implement massage therapy among parturient mothers admitted in labour room during active phase of labour.
- To assess the post interventional severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour.
- To compare the pre interventional and post interventional severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour.
- To determine the association of severity of labour pains among parturient mothers admitted in labour room during active phase of labour with their selected socio-demographic variables.
- To determine the association of anxiety among parturient mothers admitted in labour room during active phase of labour with their selected socio-demographic variables.

Delimitations

The study was limited to

- 60 parturient mothers at term, in active phase of labour.
- Civil hospital, Jalandhar only.

Review of Literature

The review of literature is defined as a broad, comprehensive, in-depth, systematic and critical review of scholarly publications, unpublished scholarly print material, audio-visual materials and personal communications.

The review of literature has been divided into three parts:

- Literature related to complementary and alternative therapies used in labour.
- Literature related to effectiveness of massage therapy on severity of labour pains.
- Literature related to effectiveness of massage therapy on anxiety.

Literature related to effect of jacobson’s progressive muscle relaxation technique on anxiety

Literature related to complementary and alternative therapies used in Labour: Dr Kate M L (2016) conducted a randomized controlled trial on complementary therapies for labour and birth study of antenatal integrative medicine for pain management in labour was done. Research setting was two public hospitals in Sydney, Australia. The sample size was 176 nulliparous women with low-risk pregnancies, attending hospital-based antenatal clinics. The Complementary Therapies for Labour and Birth protocol used in the study includes six evidence-based complementary medicine techniques: acupressure, visualization and relaxation, breathing, massage, yoga techniques, and facilitated partner support. The result depicted that there was a significant difference and participants had reported a reduced rate of augmentation, caesarean section, length of second stage of labour (mean difference=−0.32), any perineal trauma and resuscitation of the newborn.

Literature related to effectiveness of massage therapy on labour pains: Bolbol-haghighi N, zahra M S, kazemi F(2016) conducted a randomized controlled trial on effect of massage therapy on duration of Labour. The target population was 100 pregnant women who were referred to maternity ward in Fatemeh Hospital, Shahroud and randomly assisted in experimental and control group. Data analysis was conducted using chi-square test, Fisher’s exact test, independent t-test, Mann-Whitney test and multivariate linear regression in SPSS-21 software. The results showed that the duration of the first and second stage labour in the massage receiving group was significantly decreased i.e. 8 hours compared to the control group i.e. 10-12 hours at (p= 0.004 and p= 0.02, respectively). The Apgar scores at minutes 1 and 5 in test group is significantly increased compared to control group at (p <0.0001). The findings of the study showed that massage therapy during labour lead to shortening of the first and second stage labour duration and improve Apgar scores at the first and fifth minutes. By shortening the duration of labour, pregnant women tend to have more normal vaginal delivery.

Literature related to effectiveness of massage therapy on anxiety: Elizabeth. (2011) conducted a Quasi- experimental study to assess the effectiveness of back massage on pain perception and anxiety during first stage of labour among primigravida mothers in selected hospital at Bangalore. Pre-test and post-test control group design was selected for the study. The sample for the present study was selected by Non-

probability purposive sampling technique. The sample was 30 primigravida mothers between 38 weeks to 40 weeks of gestation in the first stage of labour. Out of 30, 15 mothers were assigned for experimental and 15 mothers for control group randomly. Numerical pain intensity scale was used to check the pain perception of mothers in first stage of labour. Intervention was given in the form of back massage to the experimental group and its effectiveness was proved by control group. The data was analyzed using both descriptive (mean, median, mean percentage and standard deviation) and inferential (paired 't' test, independent 't' test, chi-square) statistics on the basis of the objectives and hypotheses of the study. The results conclude that massage was found to be an effective therapy to decrease the pain, anxiety, and a depressed mood during labour. The review of literature helped the researcher in framing research tool and analyzing the effectiveness of Jacobson's progressive muscle relaxation technique (JPMR) on anxiety level of alcoholic patients. From above findings, it is clear that anxiety is the one of the major withdrawal symptom in alcoholic patients and JPMR is effective in treating anxiety.

Description of tool

The tool consists of 3 parts

Part I: Socio-demographic variables to obtain personal and general information on aspects like age, education, religion, type of family, residence, marital status, occupation, monthly income, duration of alcohol dependency, quantity of alcohol intake during last month (average per day), number of previous treatments for abstaining from alcohol, any treatment/management for anxiety.

Part II: It consists of Hamilton's Anxiety Scale (HAM-A) to assess the anxiety level of alcoholic patients admitted for de-addiction in selected hospitals of Jalandhar. . Hamilton's Anxiety Scale (HAM-A) developed by Hamilton M (1959) was used, as the tool was freely available on net under public domain. It contains 14 symptom-oriented items categorized under 2 domains i.e. psychic domain (1-6 items) and somatic domain (7-14 items). Each item in the tool was given a severity rating for assessment of anxiety from not present (scored as 0) to very severe (scored as 4). The possible response to each item was chosen by interviewing the patient and by observing the patient's facial expressions. The administration time of tool was about 15-20 minutes per patient. Maximum Score of tool is 56 and minimum score is 0. A total score of 0-17 indicates mild anxiety, 18-25 indicates mild to moderate anxiety, and 26-30 indicates moderate to severe anxiety and total score above 30 were rare, but indicates very severe anxiety.

Part III: It consists of structured plan of Jacobson's Progressive Muscle Relaxation Training provided to alcoholic patients of experimental group admitted for de-addiction in selected hospitals of Jalandhar. In the present study Jacobson's Progressive Muscle Relaxation training was used to relieve anxiety of alcoholic patients admitted for de-addiction. Before conducting training sessions of JPMR on patients the researcher underwent one month training program for developing skill in performing JPMR under guidance of clinical psychologist working at Ashoka Neuro Psychiatric Hospital & De-addiction Centre, Jalandhar, Punjab. The certificate of the same was issued and can be seen in Appendix- IV. Patients of experimental group were made to

carry out this technique for 20-40 minutes at regular times in a quiet, relaxing spot, on an empty stomach. It involves tensing and relaxing, in succession, sixteen different muscle groups of the body i.e. to tense each muscle group hard (not so hard that it produces strain) for about 5-10 seconds and then let go of it suddenly, then give 10-20 seconds to relax noticing how the muscle group feels when relaxed in contrast to how it felt when tensed, before going to the next groups of muscles. Each patient in experimental group underwent 6 training sessions out of which first 3 were complete instructional and next 3 were observational sessions.

Content validity

Content Validity of the tool was confirmed by expert's opinion regarding the relevance of items. The tool was circulated among experts from the field of Obstetrics and gynaecological Nursing. According to their valuable suggestions modification was made in Socio demographic variables i.e. Part-I and lesson plan of Message therapy i.e. Part-III. The modification in the standardized tool i.e. in Punjabi version was made as per valuable suggestions given by experts from the field of Punjabi.

Pilot study

After obtaining formal approval from Medical Superintendent and Senior Medical Officer of Obstetrics and Gynaecological ward, Civil Hospital, Jalandhar. The pilot study was conducted in the month of January on one tenth of the sample comprising of 6 parturient mothers to ensure the reliability of tool and feasibility of study. Subjects were chosen by purposive sampling technique. Purpose of the study was explained to the subjects. The subjects were assured about anonymity and confidentiality of the information and informed consent was taken from those who were willing to participate in the study. All the statements in the tool were clear to the patients. The collected data was analyzed by using descriptive and inferential statistics. The study was found feasible.

Data collection procedure

Final data was collected from 1/2/2017 to 28/2/2017 after getting administrative approval. Written permission was taken from higher authorities of Civil Hospital i.e. Medical Superintendent and Senior Medical Officer of Obstetrics and Gynaecological ward. Purpose of the study was explained to the subjects. The subjects were assured about anonymity and confidentiality of the information and informed consent was taken from those who were willing to participate in the study. Data collection was done on parturient mothers who were admitted in labour room during active phase of labour in Civil Hospital, Jalandhar. Non -probability purposive sampling technique was used and total 60 patients who had fulfilled the inclusion criteria was taken for the study. Modified Visual Analogue Scale and Self Structured Anxiety Assessment Scale were used for assessing labour pains and anxiety among parturient mothers. It takes about 140 minutes At the end of successful data collection conveyed thanks to the concerned authority and wound up the study for analysis.

Ethical consideration

- Ethical clearance was obtained from the ethical clearance committee of the MHR DAV Institute of Nursing, Jalandhar.

- Permission was obtained from the Medical Superintendent, Civil Hospital, Jalandhar, Punjab.
- Written informed consent was taken from each study subject.
- Confidentiality and anonymity of the sample was kept throughout the study

Plan of data analysis

Analysis of the data was done according to the objectives. Data obtained was analyzed in terms of descriptive statistics i.e. mean, mean percentage, standard deviation and inferential statistics such as, 't' test and chi-square.

MAJOR FINDINGS

According to Section I

Description of socio-demographic variables by using frequency & percentage: In this study, majority of the parturient mothers belonging to the age group 21-25 years was 30 (50.00%). 33 (55.00%) of parturient mothers were upto senior secondary according to their education. 32 (53.34%) of parturient mothers have family income less than Rs.5000 per month. 51 (85.00%) parturient mothers were primigravida. 54 (90.00%) of parturient mothers had no companionship during labour. Majority 35 (58.33%) had regular Antenatal check-ups. All 60 (100.00%) of the parturient mothers had no previous use of massage /complementary therapy and have no use of analgesic or any other drug during First stage of Labour.

According to Section II

Objective 1: To assess the pre interventional severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour.

- The pre interventional mean of severity of labour pains among parturient mothers admitted in labour room during active phase of labour was 82.91.
- The pre interventional mean of anxiety among parturient mothers admitted in labour room during active phase of labour was 25.53.

Objective 3: To assess the post interventional severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour.

- Post interventional mean of severity of labour pains among parturient mothers admitted in labour room during active phase of labour was 22.66.
- Post interventional mean of anxiety among parturient mothers admitted in labour room during active phase of labour was 10.48

Section III: Comparison of pre interventional and post interventional severity of labour pains and anxiety among parturient mothers.

Objective 4: To compare the pre interventional and post interventional severity of labour pains and anxiety among parturient mothers admitted in labour room during active phase of labour.

- The mean difference between pre interventional & post interventional severity of labour pains was 60.25 which shows that severity of labour pains had reduced after implementation of massage therapy. The calculated 't' value was 24.0039 which was statistically significant at $p < 0.001$.
- The mean difference between pre interventional & post interventional anxiety was 15.05 which shows that anxiety had reduced after implementation of massage therapy. The calculated 't' value was 20.3378 which was statistically significant at $p < 0.001$.

Section IV: Association of severity of labour pains & anxiety among parturient mothers with their selected Socio-demographic variables

Objective 5: To determine the association of severity of labour pains among parturient mothers admitted in labour room during active phase of labour with their selected socio-demographic variables.

- Education and Companionship during labour found to be statistically significant at $p < 0.05$. Socio-demographic variables such as age, family income (Rs./Month), gravida, antenatal check-ups, previous use of any type of massage therapy/complementary therapy, use of analgesic and any other drug during first stage of labour were found to be statistically non-significant.

Objective 6: To determine the association of anxiety among parturient mothers admitted in labour room during active phase of labour with their selected socio-demographic variables.

- Socio-demographic variables such as age, education, family income (Rs./Month), gravida, companionship during labour, antenatal check-ups, previous use of any type of massage therapy/complementary therapy, use of analgesic and any other drug during first stage of labour were found to be statistically non-significant at $p < 0.05$.

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