

Effect of Progressive Muscle Relaxation Technique on Pain and Anxiety Among Post Caesarean Mothers



Medical Science

KEYWORDS : Progressive muscle relaxation, pain, anxiety, post caesarean mothers.

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ABSTRACT

A quasi experimental study was conducted to determine the effect of progressive muscle relaxation technique on pain and anxiety after caesarean section among sixty post caesarean mothers. The subjects were selected by purposive sampling after 24 hours of caesarean section from Obstetrics and Gynecology ward of Sree Gokulam Medical College Hospital. Data were collected by using socio personal variables and numerical pain rating scale for assessing pain and state trait anxiety inventory for assessing anxiety after caesarean section. Thirty subjects in the experimental group received Progressive muscle relaxation technique twice (morning and evening) daily for three days after 24 hours of caesarean section and thirty subjects in control group received routine care. Post test was conducted on the third day one hour after the evening session from both the groups. Results showed that the pain ($p < 0.05$) and anxiety ($p < 0.01$) in the experimental group were less than that of control group. The findings showed that Progressive muscle relaxation technique has significant effect on pain and anxiety among post caesarean mothers. Therefore this non-pharmacological method can be effectively used to decrease the pain and anxiety for post caesarean mothers.

Introduction:

The moment a child is born, the mother is also born she never existed before. The woman existed, but the mother, never. A mother is something absolutely new. There is no more profound transition in the life of a woman than her passage into motherhood. It touches at so many different levels – physiologically, emotionally, psychologically and even spiritually. With motherhood comes a pronounced shift in internal sense of mothers in the world. This psychological metamorphosis often feels like a crisis of identity as new mothers try to adjust to the sudden and dramatic change in their lives. In order to fully embrace motherhood, mothers need to mourn the life that appears to have been left behind so that they can create a successful balance between that life they knew and the eye-opening physical and emotional challenges of the first year postpartum. Babies can enter this world in one of two ways: Pregnant women can have either a vaginal birth or a surgical delivery by caesarean section, but the ultimate goal is to safely give birth to a healthy baby. Caesarean birth is the birth of a fetus through a Trans abdominal incision of the uterus.

Post operatively all women experiences pain and some physiological alterations. Depending upon the psychological status many clients experience mild to severe anxiety. Post-partum discomforts like pain, stress reactions, anxiety may results in lack of self-care and ambulation, poor breast feeding, inadequate newborn care and sometimes delay in discharge. Pharmacological methods are limited in this area due to breast feeding and arises a need for non-pharmacological therapies. **Materials & Methods:**

Research approach

A quantitative approach was used to find out the effect of progressive muscle relaxation technique on pain and anxiety among post caesarean mothers.

Research design

The Research design chosen by the investigator was quasi experimental research design (pretest-posttest design). The design can be abbreviated as follows:-

E	O1	X	O2
C	O1	--	O2
E	-	Experimental group	
C	-	Control group	

X	-	Intervention progressive muscle relaxation technique.
O1	-	Pretest to assess intensity of pain and level of anxiety.
O2	-	Post-test to assess intensity of pain and level of anxiety.

Setting of the study

Obstetrics and Gynecology wards of Sree Gokulam Medical College hospital

Population

Post caesarean mothers who are admitted in Sree Gokulam Medical College Hospital.

Sample

Thirty subjects in each group (total - sixty) were recruited in this study

Sampling technique

Purposive sampling was used.

Tools / instruments

In this study the instruments used were:

Questionnaire – to assess socio personal variables

Standardized Numerical pain rating scale – to assess level of pain

State trait anxiety inventory- to assess level of anxiety

Variables under the study

Independent variable

Progressive muscle relaxation technique.

Dependent variables

Pain, Anxiety

Socio personal variables:

Age, Religion, Education, Occupation, Monthly income, Type of family, Parity, Number of previous caesarean section, Type of caesarean section, Support from family and partner, Condition of the baby.

Data Collection Procedure

Data collection were carried out for a period of two month

from 31/12/14 to 28/2/2015 after obtaining written permission from medical superintendent and institutional ethical committee of Sree Gokulam Medical College and Research Foundation. The data collection process began with identifying the post caesarean mothers who met the inclusion criteria. Thirty subjects were selected to both experimental and control group from different units to avoid bias. The purpose of the study was explained and informed consent was obtained from each subjects. Confidentiality was ensured to all subjects. The socio personal variables of the subjects were collected through structured questionnaire. Level of pain assessed by Standardized numerical pain scale and level of anxiety assessed by state trait anxiety inventory from the subjects of both groups. The intervention Progressive muscle relaxation technique given to thirty subjects in the experimental group after 24 hours of surgery after ensuring that their pulse and blood pressure was normal as muscle relaxation can reduce these. It was given for twenty minutes as two sessions (morning and evening) for the first three post-operative days and routine care for the control group. The post test data was collected on the third post-operative day after one hour of the evening session from both control and experimental group. Each tool was administered for five minutes to ten minutes.

Results:

- More than half (53.3%) of subjects in control group were belongs to the age group of 26-30 followed by 43.3% belongs to 21-25 years of age group. In the experimental group majority (43.3%) belongs to 21-25 followed by 40% belongs to 26-30 age group.
- In control group 76.7% and experimental group 60% subjects were belongs to religion Hindu, 13.3% in control group and 40% in experimental group belongs to the religion Muslim.
- Most of the subjects (53.3%) in control group had above higher secondary education and 43.3% were belongs to higher secondary education. In experimental group majority (46.6%) had above higher secondary education and 23.3% belongs to higher secondary education and only 30% belongs to secondary education.
- In control group majority of subjects (90%) were unemployed and only 10% have employed, in experimental group 96.6% subjects were unemployed and only 3.3% were employed.
- More than half of the subjects (53.3%) in control group and 40% in experimental group had monthly income of 5001-10000.
- In both experimental and control group majority (80%) of subjects were belongs to nuclear family and only 20% were belongs to joint family
- In control group 63.3% subjects and experimental group majority (66.6%) were multi parous and in control group 36.6% and 33.3% in experimental group were primi parous.
- Majority (66.6%) of subjects in control group had first caesarean section and 33.3% had second caesarean section. In experimental group 60% had second caesarean section and 40% had first caesarean section
- In control group majority (56.7%) subjects were undergone emergency caesarean section and 43.3% were undergone elective caesarean section. In experimental group equal number of subjects (50%) were undergone elective and emergency caesarean section.
- Both in experimental and control group were had adequate support from family members and husband.
- All 60 babies of subjects from both the groups were in good condition
- Effect of Progressive Muscle Relaxation Technique on pain among post caesarean mothers.

Table-1: Median, Mann Whitney U and p value of difference

between pre and post pain score of control and experimental group

(n =60)

	Group	Median of difference	Mann Whitney U	P
Pre and post pain score	Control	1.000	296.500	0.019*
	experimental	2.50		

*Significant at p<0.05

The table 1 shows that the Mann Whitney U test value obtained was 296.500 which is significant at p<0.05. Hence it was interpreted that progressive muscle relaxation technique has significant effect on pain among post caesarean mothers.

Effect of Progressive Muscle Relaxation Technique on anxiety among post caesarean mothers.

Table-2: Median, Mann Whitney U and p value of difference between pre and post anxiety score of control and experimental group.

(n =60)

	Group	Median of difference	Mann Whitney U	P
Pre and post anxiety score	Control	3.50	267.000	0.007**
	experimental	12.00		

**Significant at p<0.01

The table 2 shows that the Mann Whitney U test value obtained was 267.000 which is significant at p<0.01. Hence it was interpreted that progressive muscle relaxation technique has highly significant effect on level of anxiety among post caesarean mothers.

Hence the research hypothesis H₁ and H₂ were supported. So it can be concluded that the progressive muscle relaxation technique has significant effect on level of pain and anxiety among post caesarean mothers.

Discussion:

For testing the effect of independent variable on dependent variable non parametric test such as Man Whitney U test was used. While testing the effect of Progressive Muscle Relaxation Technique on pain among post caesarean mothers, Mann Whitney U test value obtained was 296.500(p=0.019) which is significant at p<0.05. Hence it was interpreted that progressive muscle relaxation technique has significant effect on level of pain among post caesarean mothers. The present study findings are consistent with the results of a previous study which was conducted among Obstetrical and Gynaecological abdominal surgery patients done by Adriana de Paula, Emilia, Claudia. In order to analyze the data, they used the sign test and found a difference between the levels obtained in the two phases with a statistically significant reduction in pain level after relaxation (z = 7.68 and p =0).

While testing the effect of Progressive Muscle Relaxation Technique on anxiety among post caesarean mothers, Mann Whitney U test value obtained was 267.000 (P=0.007)which is significant at p<0.05. Hence it is interpreted that progressive muscle relaxation technique has highly significant effect on level of anxiety among post caesarean mothers. The present study findings are consistent with the results of previous study conducted among colorectal cancer patients after stoma surgery. The use of PMRT significantly decreased anxiety and improved generic quality of life in the experimental group (P<0.05). The findings of the present study was also consistent with a previous study assessed the effect of progressive muscle relaxation training on

anxiety levels and quality of life in dialysis patients. The result shows that the mean state-anxiety score before and after PMRT was found as 43.4 +/- 4.3 and 28.9 +/- 2.8, respectively ($P < 0.001$) which demonstrate that PMRT for dialysis patients helps decrease state- and trait-anxiety levels and has a positive impact on QoL.

Progressive muscle relaxation technique is effective in reducing pain and anxiety among post caesarean mothers. So progressive muscle relaxation technique can incorporate as a part of nursing intervention after caesarean section to reduce pain and anxiety and thereby improve their level of comfort and quality of life.

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