

## Effectiveness of Benson's relaxation technique on reduction of pain among post caesarean mothers admitted at selected hospital in Kanyakumari district



Rubia Bobby, R. S\*

**Abstract:** Giving birth to a new life is the most painful experience in a woman's life. After caesarean section, women reported very high levels of pain during the first 24 hours and most of them experienced intense pain even after taking analgesics. Benson's relaxation therapy is a simple and most effective way of relaxation. This study was done to determine the effectiveness of Benson's relaxation technique on level of pain among post caesarean mothers. A quantitative approach with quasi experimental non-equivalent control group pretest post-test design was adopted. The total number of samples selected was 60 (30 in experimental group and 30 in control group) by purposive sampling technique following inclusion, exclusion criteria. The tool selected for the study consisted of four parts which include demographic variables, obstetrical variables, Modified comfort behavioral scale and self-satisfaction rating scale. The setting selected for the study was PPK Hospital; Marthandam. The intervention was given for 10 minutes per day. No intervention was given to the control group. Paired 't' test was used to compare pre-test and post-test level of pain. Chi-square test was used to find the association between the post-test level of pain among post caesarean mothers and selected demographic and obstetrical variables. The data collected were analyzed by descriptive and inferential statistics. Findings revealed that the mean pain reduction level was 25.02 and the calculated test value was 21.04, which is higher than the table value 3.396 at  $p > 0.001$ . Hence, the test was significant at the level of  $p > 0.001$ . Hence, the findings indicated that after administering Benson's relaxation technique in experimental group, there is significant decrease in level of pain. The findings also revealed that in experimental group there was significant association between the posttest level of pain and demographic variables like age ( $\chi^2=15.004, df=3$ ), religion ( $\chi^2=17.109, df=9$ ), occupation of mother ( $\chi^2=16.301, df=3$ ), type of work ( $\chi^2=15.018, df=6$ ), type of family ( $\chi^2=15.03, df=3$ ), place of residence ( $\chi^2=16.9, df=3$ ), have undergone yoga classes ( $\chi^2=18.6, df=3$ ) and parenthood classes ( $\chi^2=16.743, df=3$ ). Hence the research hypotheses  $H_2$  was accepted.

People go through so much pain trying to avoid pain.

Neil Strauss

**P**regnancy and delivery is the gift of god given to women. It's a wonderful and joyous event to the entire family. It is celebrated universally as a joyous event. The birth of a child is one of the most exciting situations, yet stress producing physiological adaptation involved in labour and birth.

Giving birth to a new life is the most painful experience in a woman's life, both in normal vaginal delivery as well as in caesarean deliveries. Women's accounts of birth often describe feelings of empowerment, elation and achievement.

Caesarean section is an operative procedure whereby the fetuses delivered after the end of 28th weeks

through an incision made on the lower abdomen. The name caesarean section is derived from the Latin word "caedere" which means to cut.

"Francois Mauriceau" first reported caesarean section in 1668. "Kehrer" in 1881 did the transverse lower segmental operation for the first time. "Monrokerr" in 1926 not only reintroduced the present technique of lower segment operation but also popularized it.

The common indications for caesarean section in primiparous mothers are cephalo pelvic disproportion, central placenta praevia, foetal distress, dystocia, abruptio placenta, malpresentation, failed surgical induction of labour, failed progress of labour, bad

obstetrical history, hypertensive disorders in pregnancy and medical gynaecological disorders.

DC. Dutta (2004)

Relaxation response indeed plays a vital role in reducing pain perception at varying degrees. The various techniques for evoking the relaxation response includes Imagery, Progressive muscle relaxation, Repetitive prayer, mindfulness meditation, Repetitive physical exercises, breath focus.

Elicitation of the relaxation response has been found to be an effective therapy in a number of diseases that include hypertension, cardiac rhythm irregularities, many forms of chronic pain, insomnia, infertility,

\*Lecturer, Annammal College of Nursing, Kuzhithurai, Kanyakumari District, Tamil Nadu.

the symptoms of cancer and AIDS, premenstrual syndrome, anxiety and mild and moderate depression

Benson's relaxation therapy is a simple and most effect way of relaxation. It is easy to follow and doesn't need any assistance hence can be implemented in post caesarean mothers

- Boston (2009).

Herrk McCaffery (2015); conducted a quasi experiment, prospective not blind, randomized two group parallel study among post caesarean women to evaluate the effectiveness of Benson's relaxation technique in reducing pain on operative trauma at Cibbabat Hospital, Cimahi.

Quasi - experimental pre and post-test design was used. 60 post caesarean section women were selected by quota sampling method and randomly assigned in experimental and control group. Women in the experimental group received the Benson's relaxation therapy and those in the control group received regular care from the health workers.

Data collection was done by visual analogue pain scale before and after the intervention. The results of the study revealed that Benson's relaxation therapy was effective in reducing pain among post caesarean women.

### Background of the study

Post caesarean pain is complex and multifactorial. It originates from many sources. First, somatic pain results from tissue damage due to wound incision which stimulates electrical and chemical activities in the nervous system leading to pain perception in the brain. The somatic pain is well localized and often decreased or even evaporates within 2-3 days. Second, visceral pain that has two origins as abdominal organs and peritoneum manipulation during operation and uterine involution process (after pain)

-Bourne et al, (2014)

Relaxation techniques could be used effectively in many clinical conditions, including childbirth, severe pain, anxiety, insomnia, and aggression. These techniques are able to maintain normal hemodynamic status.

The mechanism of pain relief with relaxation therapy has been explained in relation to the gate control theory of pain.

### Statement of problem

A study to evaluate the effectiveness of Benson's relaxation technique on reduction of pain among post caesarean mothers admitted at selected hospital in Kanyakumari District.

### Objectives of the study

- To evaluate the level of pain among post caesarean mothers.
- To determine the effectiveness of Benson's relaxation technique on level of pain among post caesarean mothers.
- To determine the association between post-test levels of pain among post caesarean mothers with their selected demographic variables in experimental and control group.
- To determine the association between post-test levels of pain among post caesarean mothers with their selected obstetrical variables in experimental and control group.

### Hypotheses

$H_1$ : There will be a significant difference in the level of pain after administering Benson's relaxation technique among post caesarean mothers.

$H_2$ : There will be a significant association between the post-test level of pain with selected demographic and obstetrical variables in experimental group.

### Assumptions

- Post caesarean mothers percieve

pain after caesarean section.

- Benson's relaxation technique has a positive effect to reduce pain among post caesarean mothers.

### Delimitations

This study is delimited to:

- Post caesarean mothers between 21-30 years of age who are between the second to fifth post-operative days.
- Study period of 4 weeks.
- Post caesarean mothers who were primi-parous.
- Post caesarean mothers who were available at the time of study.

### Conceptual framework

The conceptual framework selected for this study was based on General system theory by Ludwig Von Bertalanffy (1968)

### Research methodology

**Research approach-** The research approach adopted for this study was Quantitative research approach.

**Research design:** Non-equivalent control group pre-test post-test design was adopted for this study.

**Setting of the study:** This study was conducted in PPK Hospital, Marthandam.

### Sampling criteria

#### Inclusion criteria

- Post caesarean mothers belonging to the age group of 21-30 years.
- Post caesarean mothers who were primi parous.
- Post caesarean mothers who were able to co-operate for Benson's relaxation technique.
- Post caesarean mothers who stay in hospital for 5 days.

- Post caesarean mothers admitted to post-operative ward.

#### Exclusion criteria

- Post caesarean mothers with complications.
- Post caesarean mothers with systemic medical illness.

**Selection and development of tool:** Tool consisted of 4 parts, Section I, Section II, Section III, and Section IV.

**Section -I: Demographic variables:** It consisted of 11 items which included age, religion, education status, occupation, income, type of work, type of family, place of residence, and have attended yoga and parenthood classes and support system after caesarean section.

**Section-II: Obstetrical variables:** It consisted of 4 items gravida, gestational age, sex of baby, and number of post-operative day.

**Section-III: Modified comfort behavioural pain scale:** It has 10 items and rated on a 5 point scale. The total score for this scale is 50.

**Section-IV: Self-satisfaction rating scale:** It has 10 items regarding the level of satisfaction regarding Benson's relaxation exercise among post caesarean mothers.

#### Data analysis and interpretation

The findings revealed that, in pretest 23 (77%) of post caesarean mothers had severe pain; 07 (23%) had moderate pain and none of the mothers had mild or no pain. In post-test 21 (70%) of post caesarean mothers had no pain; 09(30%) had mild pain and none of the post caesarean mothers had moderate to severe pain.

#### Data pertaining to the effectiveness of Benson's relaxation technique on level of pain among post caesarean mothers

The above table reveals that in experimental group pretest mean score was 33.17 4.302 and the post-test mean score was 8.15 4.894. The mean pain reduction level was 25.02 and the calculated 't' value was 21.04, which was higher than the table value 3.396 at  $p > 0.001$ .

Hence, the test was significant at the level of  $p > 0.001$ . Therefore, the findings indicated that after administering Benson's relaxation technique in experimental group, there is significant decrease in level of pain. Hence, H1 hypothesis was accepted.

### Results and discussion

#### Findings related to the frequency and percentage distribution of obstetrical variables among post caesarean mothers in experimental and control group

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In experimental group, majority (i.e.) 28 (93%) of post caesarean mothers were primigravida, 27 (90%) deliveries were conducted between the Gestational weeks of 37-40 weeks. 17 (57%) of babies born were females and 30 (100%) deliveries were conducted under spinal anaesthesia.

In control group, majority (i.e.) 28

Group	Pretest		Posttest		Mean difference MD	't' value (p=0.001)
	M	SD	M	SD		
Experimental group	33.17	4.302	8.15	4.894	25.02	21.04***

(93%) of post caesarean mothers were primigravida, 25 (83%) deliveries were conducted between the gestational age of 37-40 weeks. 15 (50%) of babies born were both males and females and 30 (100%) deliveries were conducted under spinal anaesthesia.

#### Findings related to the frequency and percentage distribution of pre-test and post-test level of pain among experimental group and control group

The findings revealed that in pretest 23 (77%) of post caesarean mothers had severe pain; 07 (23%) had moderate pain and no one had mild and no pain. In post-test 21 (70%) of Post caesarean mothers had no pain; 09 (30%) had mild pain and no post caesarean mothers had moderate to severe pain. Similarly, in the control group the findings revealed that in pretest 22 (73%) of post caesarean mothers had severe pain; 08 (27%) had moderate pain and no one had mild and no pain. In post-test 27 (90%) of Post caesarean mothers had mild pain; 03 (10%) had moderate pain and no post caesarean mothers had no pain and severe pain.

#### Findings related to the effective-

Level of pain	Pre-test		Post-test	
	f	%	F	%
No pain				
0-10	00	00	21	70
Mild pain				
11-20	00	00	09	30
Moderate pain				
21-30	07	23	00	00
Severe pain				
31-40	23	77	00	00

### **ness of Benson's relaxation technique on level of pain among post caesarean mothers in experimental group**

The findings revealed that in experimental group pretest mean score was 33.17 4.302 and the post-test mean score was 8.15 4.894. The mean pain reduction level was 25.02 and the calculated test value was 21.04, which is higher than the table value 3.396 at  $p > 0.001$ .

Hence, the test was significant at the level of  $p > 0.001$ . Therefore, the findings indicated that after administering Benson's relaxation technique in experimental group, there is some significant decrease in level of pain so H1 hypothesis was accepted.

### **Findings related to the association between post test score of pain with demographic variables and chi square among experimental group and control.**

The findings revealed that, in experimental group there was significant association between the posttest level of pain and demographic variables like age ( $\chi^2=15.004$ ,  $df=3$ ), religion ( $\chi^2=17.109$ ,  $df=9$ ), occupation of mother ( $\chi^2=16.301$ ,  $df=3$ ), type of work ( $\chi^2=15.018$ ,  $df=6$ ), type of family ( $\chi^2=15.03$ ,  $df=3$ ), place of residence ( $\chi^2=16.9$ ,  $df=3$ ), have undergone yoga classes ( $\chi^2=18.6$ ,  $df=3$ ) and parenthood classes ( $\chi^2=16.743$ ,  $df=3$ ). Hence the research hypotheses H<sub>2</sub> was accepted.

And also in the control group there was significant association between the posttest level of pain and demographic variables like age ( $\chi^2=15.74$ ,  $df=3$ ), educational status ( $\chi^2=30.11$ ,  $df=15$ ), occupation of mother ( $\chi^2=16.026$ ,  $df=3$ ), type of work ( $\chi^2=20.454$ ,  $df=6$ ), type of family ( $\chi^2=15.122$ ,  $df=3$ ), place of residence ( $\chi^2=18.333$ ,  $df=3$ ) and have undergone yoga classes ( $\chi^2=15.475$ ,  $df=3$ ). Hence the research hypotheses H<sub>2</sub> was accepted.

### **Findings related to association between post test score of pain with selected obstetrical variables and chi square among experimental group and control group.**

The findings revealed that in experimental group there was significant association between the posttest level of pain and obstetrical variables like gravida of the mother ( $\chi^2=16.762$ ,  $df=3$ ), gestational age in weeks ( $\chi^2=17.017$ ,  $df=6$ ), sex of the baby ( $\chi^2=16.397$ ,  $df=3$ ), and type of anesthesia ( $\chi^2=15$ ,  $df=3$ ). Hence the research hypotheses H<sub>2</sub> was accepted. Similarly in control group there was significant association between the posttest level of pain and obstetrical variables like gravida of the mother ( $\chi^2=15.475$ ,  $df=3$ ), gestational age in weeks ( $\chi^2=16.333$ ,  $df=6$ ), sex of the baby ( $\chi^2=15.74$ ,  $df=3$ ), and type of anesthesia ( $\chi^2=15$ ,  $df=3$ ). Hence the research hypotheses H<sub>2</sub> was accepted.

### **Findings related to frequency and percentage distribution of level of satisfaction among post caesarean mothers in experimental group after the administration of Benson's relaxation technique.**

The findings revealed that after the administration of Benson's relaxation technique 27 (90%) of post caesarean mothers were highly satisfied and 03 (10%) were moderately satisfied by this technique.

### **Recommendations**

Training programme can be conducted to acquire necessary skill required to practice Benson's relaxation technique.

Benson's relaxation technique is not expensive and can be practiced as a routine care in the hospital set up.

Similar study can be done with large sample to generalize the study findings.

The results of the study can be disseminated through the mass media.

Similar study can be conducted without control group.

### **Conclusion**

The findings of the study revealed that there was significant reduction in the level of pain among post caesarean primiparous women after administering Benson's relaxation technique.

Therefore post caesarean mothers can practice Benson's relaxation technique in reducing pain during their post-operative period.

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