

Literature Review: Effect of Benson’s Relaxation Therapy (BRT) on Post Caesarean Section Pain and Stress

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Abstract

Introduction: During pregnancy the body undergoes various anatomical and physiological changes. A caesarean section is necessary when a vaginal delivery is not possible. Worldwide, the number of babies born through caesarean section has nearly increased two fold from 2000 to 2015 - from 12% to 21%. Discomfort and issues faced by mothers after Caesarean section are different from one woman to another. Pain is one of the major discomforts which make the mothers to develop negative feelings towards delivery process. Almost one-fourth of patients’ who had undergone caesarean section experienced post-operative discomfort accompanying pain. Numerous methods are used to decrease post caesarean section discomfort. There are some simple, effective, inexpensive methods to reduce post caesarean section discomfort and they are the non-pharmacological methods. One of them are Benson’s relaxation therapy that midwives can help post caesarean section mothers in lessening the discomforts by utilizing non-pharmacological measures.

Methodology: Researchers employed the use of electronic database which included MEDLINE, Pubmed, CINHALL, Google Scholar & ProQuest for obtaining literatures related to the effect of Benson’s relaxation therapy on post caesarean section associated pain and stress.

Result: This narrative review shows that Benson’s relaxation therapy, a non pharmacological measure, can aid the body to gain a sense of relaxation and comfort. It is an intervention which has found to be effective in reducing pain and associated stress and also promote a good sleep.

Conclusion: Benson’s relaxation therapy can be used as an inexpensive and convenient technique to promote relaxation and can be incorporated as a routine interventions among post caesarean section mothers to relieve pain and stress.

Keywords: Benson’s relaxation therapy (BRT); Pain; Stress; Post caesarean section mother.

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Introduction

Pregnancy is one kind of reviving as well as jovial time in a women's life, as it characterizes the women's most imaginative plus supporting powers while giving an expansion to what's to come. During pregnancy the body undergoes various anatomical and physiological changes and these changes mainly occur due to the huge hormonal alteration that occurs during antenatal and intranatal period.¹ There are many ways of delivery like normal vaginal delivery, assisted delivery or operative delivery which includes caesarean section.

According to WHO, Caesarean section is a surgical intervention which is carried out to ensure safety of mother and child when vaginal delivery is not possible (emergency caesarean section) or when the doctors consider that danger to the mother and baby would be greater with a vaginal delivery (planned caesarean section).²

After caesarean section, mothers' faces variety of discomfort and problems that vary from one woman to another. Pain is one of the major discomforts which can cause the post caesarean section mothers to develop negative feelings towards childbirth. This pain and discomfort around the incision can last for several months. It also affects the mother-infant interaction.³ Many methods are used to diminish post caesarean section discomfort; the quick and simple methods are the utilization of anti-emetics to get rid of nausea, vomiting and analgesics to reduce pain. Pain relief medications can decrease the pain level

but it may cause a many unpleasant side effects that cannot be ignored as these discomforts may cause some genuine effect on physical and psychological aspect of post caesarean section mothers. There are some simple, effective, inexpensive methods to decrease post caesarean section discomfort and they are the non-pharmacological methods.⁴ BRT is a non pharmacological approach which causes the body to gain a sense of relaxation through breathing awareness.⁵ It can lessen the pain, increase appetite, increase sleep, increase energy, reduce stress, feel relax and indirectly increase bonding with child.⁶

In an attempt to understand the effect of BRT on post caesarean section pain and stress, the researchers reviewed various literatures related to it and presented this narrative review.

Materials, Methods, and Findings

This is a narrative review done by the researchers especially headed on understanding the impact of BRT on level of pain and stress in post caesarean section women. The researchers included literatures that were conducted to assess the effect BRT on any factors which included pain, stress, anxiety, blood pressure or coping mechanisms used and also included researches done among either antenatal or postnatal women.

The researchers derived the literatures from different printed as well as electronic databases that included MEDLINE, Pubmed, CINHALL, Google Scholar & ProQuest. Some of the significant reviews are as depicted in the following table 1:

Table 1:

Author Year Place	Objectives	Methodology	Result
PriyaJ., Meeral K., Baby S., Jeenath J ⁶ 2017 Una, Gujarat	To evaluate BRT in reducing pain among post caesarean section women.	A time series experimental design was used where 60 samples were purposively selected. BRT was given for first to third days post operatively for five minute twice a day which was gradually increased toten to twenty minutes. Appropriate statistical methods were used analyse the collected data.	To evaluate the efficacy of BRTon pain level, F test was used. For study group, it was highly significant at 0.001 level while compare to control group.
Sindhumol P, Smitha T ⁷ 2015 Pune	To assess BRT on pain level in post caesarean mothers hospitalized in a tertiary care centre.	A quasi experimental study was conducted on 38 post caesarean section on their first and second postoperative days that were choose by simple random sampling method. The intervention was administered for 10 minutes in 12 hrs duration for first two days. Data was analysed by SPSS version 20.	After all the four sessions there was statistically significant reduction in pain perception at 95% CI. ($p < 0.005$).

Author Year Place	Objectives	Methodology	Result
Tetti S, Yeni R ⁸ 2015 Indonesia	To find out the impact of BRT in decreasing pain level among mothers after Caesarean section.	A quasi-experiment study in which 60 samples were randomly allocated into two groups (30 in each group) with use of table of random numbers. The BRT was provided to experimental group and was continued for 84 hours: then the second day, third, and fourth every 12 hours at 6 am and 6 pm.	The result of this study indicating that there were significant difference in interventional group's average pain level before and after the intervention period. ($p < 0.005$, $\alpha = 0.05$).
Simi P, Sireesha B, J Krishna S, M V, Raghavendra Rao, Praveen K ⁹ 2012 Kannur, Kerala	To identify the efficiency of BRT in reducing stress level in women.	A one group pretest-post-test study was undertaken includes total 30 primigravida women after first trimester. BRT was provided to all participants of group for 15 continuous days, for 20 minutes. After the providing BRT post-test was conducted by means of rating scale.	The finding of this study showed that the pre test stress level was higher than post test stress level. There was statistically significant difference between pre test and post test stress level.
Preethi J, Reeta J, Nalini J. ¹⁰ 2016 Madurai	To determine the efficacy of BRT on stress and blood pressure in women having PIH.	60 participants (30 in each experimental and control group) were selected by convenient sampling technique. BRT was administered in the study group for one week. Modified Cohen's perceived stress scale and Sphygmomanometer was utilised to assemble data regarding stress and blood pressure among the participants	After administering therapy, significant difference found in posttest stress intensity. In interventional group 130.6 was mean posttest systolic BP was less than the control group.(141.75).
Jemy M ¹¹ 2016 Coimbatore	To check outcome of BRT on level of anxiety in antenatal mothers.	A quasi experimental study where in which 30 pregnant women were selected for the project, 15 in each group with the help of consecutive sampling method. State Trait Anxiety Inventory for Adults was utilised to assess anxiety level. The BRT was administered for 3 days per week for 30 minutes twice on a daily basis.	For this study, was calculated 't' value, that was higher than the table value and highly significant at 0.001 level
R Sherlin ¹² 2014 Coimbatore	To assess the efficiency of BRT on pain and stress level in post caesarean women.	A time series study was conducted. Total 100 samples were selected by using purposive sampling method. Pain level was assessed by Numerical pain scale and stress level by using Hung's postpartum stress scale.	Association of the post test pain levels between the interventional and control group showed that the 't' value was significant at level of 0.01 significance. Likewise there was a statistically significant difference found in the post test stress scores in the experimental group
P. Padmavathi ¹³ 2014 Erode, Namakkal District	To evaluate the BRT on stress level in antenatal women.	A pre experimental study was conducted where in total 30 pregnant women were chosen by using convenient sampling method. The stress level was measured by Perceived Stress Scale. The BRT was administered for 30 days for duration of 20-30 minutes.	BRT is a non-pharmacological, cost effective and easy intervention in diminishing the stress in antenatal mothers.
Neethu M,G. Sumathi ¹⁴ 2014 Chennai	To assess the outcome of BRT on stress level and coping mechanism in high risk pregnant mothers.	Pre experimental project in which 30 pregnant mothers were chosen using convenient sampling method. Jalowies and power coping scale and Perceived stress scale were utilized to measure the level of coping and stress. BRT was given for 20 minutes two times a day and is continued for 14 days.	Finding of this project revealed significant difference in stress score and coping level after intervention at the level of $p < 0.001$.

Author Year Place	Objectives	Methodology	Result
Akram S., Abolfazl R., et al. ¹⁵ 2017 Iran	To assess impact of BRT on pre caesarean section anxiety among nulliparous women.	Pre-test post-test control group design was adopted for this study. 60 nuliparous women were chosen by purposive sampling method and randomly assigned to experimental and control group. Spielberger state anxiety inventory was used to assess pre operative anxiety level. Intervention was administered twice with duration of 15 minutes at interval of 2 hour.	Result of this study showed that anxiety level after intervention in the experimental group was lower than the control group, which was statistically significant ($p < 0.001$). So BRT lessens the pre caesarean anxiety in nulliparous women.
Sinmayee K., Bijaylaxmi P. ¹⁶ 2015 Odisha, India	To find out effect of VATM on BRT on level of stress among antenatal women.	In this pre experimental study, a total of 50 antenatal women were selected using purposive sampling method. Data were collected by Modified perceived pregnant women's specific stress rating scale and analyzed by descriptive and inferential statistics. Participant are instructed to practice Video assisted teaching module for 15 days. After that post was conducted on 15 day.	Result showed that in pretest 54% and 46% of the antenatal mothers had sever and moderate level of stress respectively. Where as in post-test majority 76% of them had no stress, 22% and 2% of them mild and moderate stress accordingly. There was highly significant difference was found between pre and post test. So VATM on BRT was effective in reducing stress.
Hanan S., Hanan A., Adel A. ¹⁷ 2017 Egypt	To assess the impact of BRT on level of stress and coping among high risk pregnant mother.	A quasi experimental study was done where 50 participants were selected purposively. Perceived stress scale and coping patterns scale was used for data collection. BRT was administered for 20 minutes, twice daily for 14 days. Data were analyzed by SPSS version 20.0	There was a significant negative moderate correlation between total stress score and total coping score pre and post-intervention ($r = -0.511$, $r = -0.651$, $p = 0.001$, respectively) that it means when the stress decreases, the coping is better. So data revealed that BRT could improve maternal psychological health by minimizing stress and enhancing coping.
Biabani F., Moradi K., et al. ¹⁸ 2015 Iran	To determine the efficacy of BRT on severity of pregnancy nausea.	This study was controlled clinical trial. Total 44 pregnant women were randomly divided into interventional and control group by using blocking method with four blocks. BRT was administered for one month twice daily for 15-20 minutes each day. The severity of nausea was assessed by using visual analogue vomiting. Data were analyzed by using Wolcoxon Kruskal-Wallis and Mann-Whitney test.	Result of this study depicted that mean and standard deviation of severity of nausea in the intervention group before BRT was 6.9 ± 2.9 and after BRT was 6.64 ± 1.99 . Mann-Whitney test revealed that this technique significantly reduced the severity of nausea ($p = 0.001$)

Discussion

After reviewing the various literature researchers found that majority of the studies showed a positive outcome of Benson's relaxation therapy on various discomforts associated with pregnancy and specially on post caesarean section mothers. It also helpful in physical and mental well being.

Some studies suggested that BRT can be used as an intervention to reduce pain and stress level among post caesarean section mothers. BRT is simple, easy measure does not require high cost or manpower. So it can be used in health care facilities to manage post caesarean section discomforts. Even

none of the reviewed literature suggested any sort of adverse effect of BRT on the participants. Thus in order to strengthen existing evidences regarding same and to find out its significance in Gujarat state, researchers propose to conduct a detailed study on it. thereby gaining insight in its actual effectiveness.

Clinical recommendation:

- BRT can be used effectively by midwives to reduce pain and stress among pot caesarean section women.
- Comparative studies can be done with other complementary therapies.

Conclusion

Hereafter from the broad literature review, the authors have found that the most studies have been done in the field are either lack in certain parts of legitimacy or are commonly done in setting other than the researchers interest. Furthermore, review of several studies recommended that there is a relationship between the BRT and level of pain & stress in post caesarean section women. In view of the cost factors, this therapy is easy to perform, no specialized abilities required.

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