

# The Effect Of Relaxation Of Benson On The Intensity Of Section Cesarea Post Women Pain At Muhammadiyah Metro Hospital In 2018

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**Abstract:** *Caesarean section is an effort to give birth to a fetus through surgery due to the condition of the mother or fetus that requires this action to minimize maternal and fetal morbidity. The problem that arises after surgery is the disruption of pain, so it is necessary to take nursing action. The purpose of this study was to determine the effect of Benson relaxation on the intensity of post-caesarean section maternal pain at Muhammadiyah Metro Hospital in 2018. This type of experimental research, quasi-experimental design using the form Nonequivalent control group design / non-randomized control group pretest-posttest design. The population in this study were 127 mothers of postoperative cesarean section at Muhammadiyah Metro Hospital, with a sample of 32 people divided into the experimental and control groups 16 each. The analysis used the independent sample T-test. The average post-caesarean section pain before treatment (pretest) in the intervention group was 6.13-1.784, and after treatment (posttest) 2.81-1.559 with a difference in pain score of  $3.131 \pm 1.078$ . The mean postoperative pain in the control group pretest cesarean section was 6.882.062 and the posttest 3.94-1.938 with a difference in pain scores of  $2.938 \pm 1.938$ . The difference in the average pain intensity after treatment between the intervention group and the control group was -1.125 with a significance value of 0.039 ( $p < 0.05$ ), which means that there is a significant difference in the intensity of post-caesarean maternal pain between the intervention and control groups. The result of the t value of 1.125 is more significant / smaller than the t table so that there is a difference in the average pain in patients before giving Benson relaxation. Benson relaxation has been proven effective in reducing the pain intensity of post-caesarean women. It is hoped that Benson relaxation can be used as a companion therapy in pain management in post-caesarean section patients.*

**Keywords:** *Benson Relaxation, Maternal pain intensity after cesarean section*

## 1. INTRODUCTION

Caesarean section is an operation to deliver the fetus through an incision in the abdominal wall and the uterus of artificial labour so that the fetus is born through the stomach and abdominal wall and uterine wall so that the child is born intact and healthy [1]. The World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) released the results that the number of cesarean section deliveries in the world annually occurs around 18.6 million, 6% to 27.2% are in developed countries, and the rest are in countries developing.

The prevalence of cesarean section delivery in Indonesia has increased. The results of the 2013 Basic Health Research recorded 9.8% of cesarean section deliveries or much higher with other types of delivery methods such as the vacuum method (0.9%) and forceps (0.1%). The highest number of cesarean section deliveries was in DKI Jakarta (19.9%), and the lowest was in Southeast Sulawesi (3.3%), while Lampung Province was 4.5 [3].

An increase in the number of deliveries by cesarean section occurs in almost all hospitals in Indonesia including the Muhammadiyah Metro General Hospital where the data from the pre-survey results show that the average cesarean section delivery per day reaches 4 to 6 deliveries, which means that in one month it can reach 127 deliveries of cesarean section and each year there are more than 1000 cesarean sections. The high number of cesarean section deliveries as a measure to overcome difficulties in labour is generally based on various indications. The indications include prolonged labour to late delivery, imminent uterine rupture, fetal distress, large fetuses exceeding 4000 grams, antepartum haemorrhage, breach location, repeated cesarean section, prematurity pregnancy, high-risk pregnancy, multiple pregnancies, pre-eclampsia & pregnancy: eclampsia, the concept of well-born baby and well health mother with delivery orientation [4].

Caesarean section is the best action or decision in minimizing maternal and fetal morbidity, but also has a risk of complications for the mother such as suture scar infection, bladder injury, blood vessel injury, blood clots to long-term risks such as an increased risk of placenta previa in a subsequent pregnancy [5]. Another problem that was found in all patients undergoing surgery was the discomfort of pain which had to be given proper and proper management before the pain became more severe [6].

Postoperative pain discomfort cannot be eliminated. However, patients should receive treatment to reduce pain. Controlling postoperative pain is not only to increase comfort but also to avoid lengthy hospitalization and reduce postoperative complications to reduce health care costs. Pain management is a significant nursing role both before, during and after surgery. Pain management in post-cesarean women does not only focus on using pharmacological therapy but needs to be supported using a nonpharmacological approach or through complementary therapy [7].

One of the nonpharmacological therapies that are believed to be safe and can help reduce pain intensity is the Benson Relaxation technique which examines some of the health benefits of prayer and meditation. Benson relaxation is a simple relaxation technique, easy to implement, and does not require much money. This relaxation is a combination of relaxation response techniques and individual belief systems. In Benson relaxation, there is an added element of belief in the form of words which is a suggestion for the patient that is believed to reduce the intensity of pain and anxiety [9].

Based on the description above, the authors are interested in researching "The effect of Benson relaxation on the intensity of post-cesarean section maternal pain at Muhammadiyah Metro Hospital in 2018".

## **2. RESEARCH METHOD**

This type of research is an experimental, quasi-experimental design in the form of Nonequivalent control group design. The population in this study were women with post-cesarean sections at the Muhammadiyah Metro Hospital, totalling 127 people. The sample size was 32 people divided into 2 (two) groups, namely the experimental and control groups 16 each with a purposive sampling technique. The data collection method uses visual analogue (VAS). Benson relaxation was given to the experimental group for 10 minutes every 12 hours for two days.

### 3. RESULT

Based on data collection and analysis, the following research results were obtained.

Table 1 Distribution of Characteristics of Postoperative Women in Cesarea Section by Age at Muhammadiyah Metro Hospital in 2018

Age	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Min-Max</i>	<i>CI;95%</i>
Intervention	16	27,50	6,967	19-38	23,79-31,21
Control	16	30,31	4,127	25-36	28,11-32,51

Based on the table above, it can be explained that the average age of the respondents in the intervention group was  $27.50 \pm 6.967$  years, with the youngest being 19 years and the oldest being 38 years. Whereas in the control group, the average age of the respondents was  $30.31 \pm 4.127$  years, with the youngest being 25 years and the oldest being 36 years.

Table 2 Distribution of Characteristics of Postoperative Women in Cesarea Section Based on Parity, Occupation and Education Level at Muhammadiyah Metro Hospital in 2018.

Variable	Group				<i>N</i>	<i>%</i>
	Intervention		Control			
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>		
Parity						
> 3 children	3	18,8	2	12,5	5	15,6
1-3 children	13	81,3	14	87,5	27	84,4
Total					<b>32</b>	<b>100</b>
Profession						
IRT	10	62,5	12	75,0	22	68,8
Employees	3	18,8	1	6,3	4	12,5
Civil servants	2	12,5	2	12,5	4	12,5
entrepreneur	1	6,3	1	6,3	2	6,2
Total					<b>32</b>	<b>100</b>
Education						
Basic	2	12,5	4	25,0	6	18,8
Intermediate	8	50,0	8	50,0	16	50,0
High	6	37,5	4	25,0	10	31,2
Total					<b>32</b>	<b>100</b>

Based on the table above, it can be explained that seen from the parity, most of the respondents had 1-3 children, namely 27 people (84.4%), while those who had > 3 children were five people (15.6%). Based on work status, it can be seen that most of the respondents were housewives, namely 22 people (68.8%), four employees and civil servants each (12.5%) and two self-employed people (6.2%). While the characteristics of respondents based on the level of education, it can be seen that most of the formal education levels of secondary respondents are 16 people (50.0%), ten people (31.2%) higher education and six people (15.8%) primary education.

Table 3 Difference in the average pain intensity of post-caesarean section before (pretest) and after (posttest) treatment in the intervention group and the control group

Variable	Before	After	Difference Mean±SD	CI;95%	P-value
	Mean ±SD	Mean ±SD			
Intervention group					
Post SC pain	6,13± 1,784	2,81± 1,559	3,131±1,078	2,738-3,887	0,000
Control group					
Post SC pain	6,88± 2,062	3,94±1,389	2,938±1,938	2,197-3,678	0,000

Based on the table above, it can be seen that the results of the analysis showed that the average post-caesarean section pain before treatment (pretest) in the intervention group was 6.13 to 1.784. After treatment (posttest) 2.81-1.559 with the difference in pain scores between before and after treatment was  $3.131 \pm 1.078$ . In the paired sample t-test results obtained p-value 0.000 ( $p < 0.05$ ), meaning that the average pain intensity between before and after treatment is significantly different or in other words after giving Benson relaxation the pain intensity of post-caesarean mothers is more. Low significantly. While the average post-caesarean pain in the control group, the first measurement (pretest) was  $6.88 \pm 2.062$  and the second measurement (posttest) was  $3.94 \pm 1.938$ , the difference in pain scores between the first measurement and the second measurement in the control group was amounting to  $2,938 \pm 1,938$ . Based on the results of the paired sample t-test, the p-value was 0.000 ( $p < 0.05$ ), meaning that the decrease in the average pain intensity in the control group was also proven to be significant.

Table 4 Difference in the average post-caesarean section pain intensity between the intervention group and the control group before (pretest) and after (posttest) treatment

Variable	Intervention	Control	Difference Mean	CI;95%	P-value
	Mean ± SD	Mean ±SD			
Before (Pretest) treatment	6,13± 1,784	6,88± 2,062	-0,750	-2,142-0,642	0,280
After (Posttest) treatment	2,81± 1,559	3,94± 1,389	-1,125	-2,191-0,059	0,039

Based on the table above, it can be explained that the results of the independent t-test analysis showed that the average pain intensity before treatment (pretest) in the intervention group was  $6.13 \pm 1.784$  and in the control group was  $6.88 \pm 2.062$ . The difference in the average pain intensity before treatment between the intervention group and the control group was 0.750 with a significance value of 0.280 ( $p > 0.05$ ), meaning that there was no significant difference in the intensity of post-caesarean maternal pain between the intervention group and the control group before treatment (pretest). Meanwhile, after treatment (posttest), the average pain intensity of post-caesarean mothers in the intervention group was  $2.81 \pm 1.559$ , in the control group, it was  $3.94 \pm 1.389$ . The difference in the average pain intensity after treatment between the intervention group and the control group was -1.125 with a significance value of 0.039 ( $p < 0.05$ ), meaning that after treatment there was a significant difference in the intensity of post-caesarean maternal pain between the intervention group and the control group. Alternatively, in other words, the pain intensity in the group of post-caesarean women who were given Benson

relaxation was significantly lower than the control group or the group that was not given Benson relaxation.

#### 4. DISCUSSION

##### Average Pain Intensity of Post-Caesarean Women Before Treatment (Pretest)

The results showed that the average pain intensity of post-caesarean mothers in the intervention group before treatment (pretest) was  $6.13 \pm 1.783$ ; the minimum score was 4; the maximum score was 10. At the 95% confidence level, it is believed that the average pain intensity of post-caesarean mothers the intervention group was in the range from 5.17 to 7.08. While the average pain intensity of post-caesarean mothers in the control group, the first measurement (pretest) was  $6.88 \pm 2.062$ , the minimum score was 4, the maximum score was ten and at the 95% confidence level it was believed that the average pain intensity of post-caesarean mothers in the control group was in the range of 5.78 to 7.97.

Many complaints that are felt by postpartum cesarean section mothers include discomfort and pain caused by the wound at the incision site, bloating due to gas retention when the intestinal function is recovering, back pain due to stretching of the abdominal muscles during surgery, muscle pain due to immobilization, afterpains, and occasional discomfort due to bladder distension [12]. This study is in line with previous studies that the average pain in the experimental group was 4,400 SD 0.57; the lowest mean value in the pretest was 3.5. Whereas in the control group, the average pain intensity was 3,967 SD 0,518 [10].

Based on the description above, it can be explained that pain and discomfort is a complaint that is always felt by post-caesarean section mothers. In the results of the study, the average pain intensity of post-caesarean women before giving Benson relaxation was in the range of moderate pain and controlled severe pain. Therefore, pain management in post-caesarean women is essential because disruption of pain relief can interfere with the healing process and increase the risk of infection. As the theory goes, the physiological response to pain extends beyond muscle specificity and flight or fight response (increased blood pressure, heart rate and cardiac output, decreased gastrointestinal morality), and can have adverse effects on patient health [7]

##### Average Pain Intensity of Post-Caesarean Women After Treatment (Posttest)

The results showed that the average pain intensity of post-caesarean mothers in the intervention group after treatment (posttest) was  $2.81 \pm 1.559$ ; the minimum score was 1; the maximum score was 6. At the 95% confidence level, it is believed that the average pain intensity of post-caesarean mothers the intervention group after treatment was in the range from 1.98 to 3.64. While the average pain intensity of post-caesarean mothers in the control group after treatment (posttest) is  $3.94 \pm 1.389$ , the minimum score is 1, the maximum score is six, and at the 95% confidence level it is believed that the average pain intensity of post-caesarean mothers in the control group is in the range from 3.20 to 4.68.

Managing postoperative pain not only increases comfort but also avoids postoperative complications and reduces healthcare costs. Managing postoperative pain is a significant nursing role both before, during and after surgery. Pain management can be done using pharmacology and non-pharmacology. There are many nonpharmacological approaches to pain management that are used singly or in combination to control postoperative pain and anxiety, including relaxation [7]. The results of this study are in line with previous studies that the pain intensity in the control group and the intervention group decreased where the moderate pain before the intervention in the control group was 4.43 cm, decreased to 3.51 cm. In comparison, in the intervention group, it decreased to 4.97 cm. 2.63 cm [11].

Based on the description above, it can be explained that the average pain intensity of post-caesarean mothers in the second measurement (pretest) in both the intervention group and the control group changed. After three days of treatment, the average pain intensity in the control

group and the intervention group was in the range of mild to moderate pain. This change can occur because one of the nursing actions in post-cesarean section mothers is to carry out pain management to increase comfort and avoid the length of treatment and to reduce the risk of complications in post-cesarean section mothers.

The difference in mean pain intensity of post-caesarean mothers before (pretest) and after treatment (posttest)

The results of the analysis using the paired t-test showed that the average pain intensity in the intervention group and the control group had decreased, where the difference in the average pain intensity of post-cesarean section between before (pretest) and after treatment (posttest) in the intervention group was  $3.131 \pm 1.078$  with a value of  $p = 0.000$  ( $p < 0.05$ ) and the difference in the average post-cesarean pain intensity of the control group between before (pretest) and after treatment (posttest) was  $2.938 \pm 1.938$  with a value of  $p = 0.000$  ( $p < 0.05$ ), which means that there is a significant difference in the average pain intensity between before (pretest) and after treatment (posttest) in the intervention group and the control group.

The independent t-test results showed that before treatment (pretest) there was no significant difference in the average pain intensity between the intervention group and the control group (p-value 0.280), where the average pain intensity of the intervention group before treatment was  $6.13 \pm 1.784$ , in the control group it was  $6.88 \pm 2.062$  with an average difference in pain intensity of 0.750.

Meanwhile, after the treatment (posttest) there was a significant difference in the average pain intensity of post-cesarean mothers between the intervention group and the control group, where the average reduction in pain intensity in the intervention group was  $2.81 \pm 1.559$  and in the control group was  $3.94 \pm 1.389$  with the difference in the average reduction in pain intensity between the intervention group and the control group was -1.125 with a value of  $p = 0.039$  ( $p < 0.05$ ), meaning that after treatment, the pain intensity of post-cesarean mothers who were given Benson relaxation was significantly lower. Significantly compared with the control group or the group that was not given Benson relaxation; in other words, Benson relaxation was proven to affect reducing the pain intensity of post-cesarean mothers. This is following the results of previous studies that obtained significant differences in pain intensity before and after the intervention group was given in the control group and the intervention group. The reduction in pain was more in the intervention group than in the control group [13].

Postoperative pain discomfort cannot be eliminated. However, patients should receive treatment to reduce pain. Pain management in post-cesarean women does not only focus on using pharmacological therapy but needs to be supported using a nonpharmacological approach or through complementary therapy [7].

Complementary therapy or modality therapy is recognized as a national health effort by the National Centre for Compliance / Alternative Medicine (NCCAM) in America [9]. Herbert Benson is a medical research expert from Harvard Medical School who studies some of the benefits of prayer and meditation for health. This relaxation technique is known as the Benson Relaxation technique. This relaxation is a combination of relaxation response techniques and individual belief systems. In Benson relaxation, there is an added element of belief in the form of words which is a suggestion for the patient that is believed to reduce the intensity of pain and anxiety [9].

The results of this study are in line with previous studies that the average postpartum section caesarean pain after being given intervention in the experimental group was 2.86 with a pain reduction of 1.53 and the control group was 3.76 with a decrease in pain of 0.30, from these data. Showed a more significant reduction in pain in the experimental group compared to the control group. In the analysis, the p-value was 0.000 ( $< \alpha 0.05$ ), meaning that Benson relaxation was proven effective in reducing the intensity of post-cesarean section pain [10]. Another study

[11] showed that there was a significant difference in pain intensity between before and according to Benson relaxation in post-cesarean post-section mothers (p-value 0.000).

Based on the description above, it can be explained that after treatment for three days, the average pain intensity of post-cesarean mothers decreased significantly, both in the intervention group and the control group. The average difference between before and after treatment in the intervention group was  $3.131 \pm 1.078$ , or there was a decrease in pain intensity by 54.2%, while the average difference between before and after treatment in the control group was  $2.938 \pm 1.938$ , or there was a decrease in pain intensity by 42.7%. This can happen because, both in the intervention group and the control group or the group of respondents who were not given Benson relaxation, both received pharmacological therapy.

In the analysis, it was found that there was a significant difference in the average reduction in pain intensity between the intervention group and the control group, namely -1,125, or in other words, the group of post-cesarean women who received Benson relaxation experienced a 28.6% greater reduction in pain than with the control group. This is following previous studies that found a significant effect on the provision of Benson relaxation techniques to reduce the pain intensity of post-section caesarean patients [14]. This can occur because Benson relaxation can provide suggestions and a calming effect for post-cesarean section mothers. As the theory explains that the Benson relaxation technique is a relaxation technique that combines elements of belief and breathing techniques so that the body's use of oxygen is not excessive, causing the body's muscles to become more relaxed, calm and comfortable [10].

This relaxed feeling will be transmitted to the hypothalamus to produce corticotrophin-releasing factor (CRF) which will stimulate the pituitary gland to increase the production of proopiomelanocortin (POMC) so that the production of enkephalin by the adrenal medulla increases and the pituitary also produces  $\beta$  endorphins as a neurotransmitter. When endorphins separate from or separate from deoxyribose nucleic acid (DNA), it causes unpleasant situations. Endorphine affects pain impulses by suppressing the release of neurotransmitters at presynaptic or by inhibiting post-synaptic pain impulses so that pain stimuli cannot reach awareness and sensory pain is not experienced.

Giving Benson therapy is also useful for dealing with other pain. One of the pain which is effectively treated with Benson therapy is dysmenorrhea pain. This is following the research which states that there is an effect of Benson relaxation on reducing the level of dysmenorrhea pain in nursing students of DIII [15].

In this study, it can be concluded that the Benson relaxation technique is proven to affect reducing the pain intensity of post-cesarean women or proven to be effective, safe and can be used in helping to reduce pain intensity for post-cesarean section mothers without interfering with activities so that it is hoped that Benson relaxation therapy can be wrong. one nonpharmacological therapy or as an adjunct therapy in pharmacological pain management.

## 5. CONCLUSION

Based on the results of the analysis, it can be concluded that there is a difference in the average pain intensity of post-cesarean mothers between before (pretest) and after (posttest) giving Benson relaxation with a significance value of 0.039 ( $p < 0.05$ ). The difference in the average pain intensity after treatment between the intervention group and the control group was 1.125, meaning that Benson relaxation was proven to be effective in reducing the pain intensity of post-cesarean section mothers where the pain intensity of post-cesarean mothers who were given Benson relaxation was significantly lower than without Benson relaxation so that this relaxation can be used as a companion therapy in pain management.

## 6. REFERENCES

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