The Effect of Benson Relaxation on Reduction of Pain Level Among Post Caesarean Section Mother at Cibabat Hospital, Indonesia

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Abstract, **Post cesarean section client is suffered of pain due to operative trauma and after pain. The cause of pain can not be eliminated. However, the sensation of the pain state can be reduced by pain management. The pain management is not only pharmacological remedy but also non pharmacological treatment. The aim of the study was to identify the effect of Benson Relaxation technique on pain intensity among mother with post cesarean section. Design of the study was quasi experiment with pre and post test design. The study was conducted at Cibabat hospital. The sample of each group was 30 of post cesarean section mothers with quota sampling based on criterion. The Benson relaxation technique was mix between relaxation and faith philosophical factor or religion. The focus of this relaxation was at certain word that has a meaning in order to make it calm for the client. This technique was saying several times with regular rhythm of surrender feeling. The Benson relaxation was given along 4 days every 12 hours for 10 minutes. The visual analog scale (VAS) was used to measure the pain intensity. Those instruments were applied before and after intervention. The result of the study showed that the mean of pain before intervention was 4.97 cm. It was decreased to 2.63 cm. The study found a significantly different comparing of pain intensity before and after intervention (p = 0,000). Conclusion: The Benson relaxation can reduce the pain intensity state among client with cesarean section. The researcher recommend for health services institution especially maternity department can use the Benson relaxation technique as a standard operational procedure of non pharmacological pain management among mothers with post cesarean section.**

Keyword: **Benson relaxation technique, pain, post cesarean section**

I.   INTRODUCTION

Surgery is an actual or potential action that threatens the integrity of the person, such as bio-psycho-social-spiritual, and may cause discomfort such as pain response. Pain is a subjective perception of someone that shows discomfort verbally and nonverbally[1]. Pain is the sensation and experience of unpleasant emotions. Experience of pain a person is a combination of physiological and psychological and it is not persistent tissue damage[2]. Pain is the main reason for someone to seek medical assistance.

Surgery procedures can induce pain, one of them are an act of caesarean section. Cesarean section is an operation to deliver the baby through the mother's womb[3]. There are several reasons this surgery performed, a study[4] found that the cause of action caesarean section performed by pregnant woman is the baby's

weight more than normal, fetal distress, dystocia, placenta previa, placenta abrusio, decreased fetal percentage is still high, and malposition (intra operative surgical complication during cesarean section: an observational study of the incidence and risk factors, http://www.blackwell-synergy.com acquired on January 31, 2008). Besides there is desire to give birth by Caesarean section although there is no indication for surgery[5].

Caesarean section action can cause complex problems for clients, whether physical, psychological, social and spiritual, in which the problem was not isolated but each component subsystems interact[3]. The pain after Caesarean section actions are caused by tissue incision resulting discontinuity of tissue, the stimulation of nerve endings by chemicals released at the time of surgery, and the presence of ischemic tissue due to interruption of blood flow to one part of the tissue. According to research[6] found that 75% of surgical patients experience moderate to severe pain after surgery. The duration of the pain can last for 24 to 48 hours, but can last longer depending on how the client can withstand and respond to pain. According to a study[7] in his study entitled postoperative pain after cesarean birth affects breastfeeding and infant care showed that women experience higher levels of pain intensity during the first 24 hours post-caesarean section. In this study, there were no differences in pain intensity between the client elective Caesarean section and those performed by emergency Caesarean section[7].

Recently many methods being developed to address the problem of pain in clients with severe post Caesarean section, either by pharmacological approaches and non-pharmacological. One way non pharmacological suitable to reduce pain intensity clients post Caesarean section is relaxation[8]. Relaxation aims to reduce anxiety, decrease muscle tension and bone, as well as indirectly to relieve pain and reduce tension related to the body's physiological[9,10]. Several studies have shown that the relaxation effective in reducing postoperative pain[11,12,13,14,15]. In Indonesia, there have been several studies on the effects of relaxation techniques in reducing pain with significant results[16,17,18,19,37]. One relaxation technique is simple, easy implementation, and does not require much cost is Benson relaxation techniques, this relaxation is a combination between relaxation response techniques with individual belief system / faith factor (focused on a particular form of expression of the names of God, or the word has a calming sense to the client itself) repeatedly spoken with a regular rhythm with resignation[20].

Maternity nurses have an important position in helping to meet the needs of clients related post Caesarean section and a sense of comfort needs by reducing pain. The role of nurses are collaborating with other health professionals, as well as interventions to reduce pain intensity, evaluated the effect of interventions, acting as an advocate and educator for clients by teaching them to cope with the pain, and training of Benson relaxation techniques.

From the preliminary study conducted by researchers in the postpartum Cibabat hospital, it appeared that the room with a capacity of 20 beds was always filled with new clients giving birth, either by caesarean section or pervagina. Whereas the number of nurses in that room was only 16 people, including the head of the room which was divided into 3 shifts, so that nursing interventions especially in non pharmacological pain reduction as relaxation was never done. A data through client interviews in 5 people post caesarean section was obtained that all clients feel pain on the first day after surgery. The pain was on a scale of 6-7 and they ask for pain-killer, 3 of 5 people said that the client was tortured by the pain. Three clients said that he was told by the nurses if there is pain they should take a deep breathing, but were not given training how it is. The observations at 3 nursing room, it seems that to overcome the pain the client is given analgesics and 1 nurse advocate for clients post Caesarean section took a deep breath when the pain arises. These data indicated that the client still has limited information about how to manage pain after surgery because of the information do not meet the needs of clients in a comprehensive manner.

In connection with the problems mentioned above, and it has never done the research on the effect of Benson relaxation therapy to decrease pain intensity clients post caesarean section in the hospital, the researchers are interested in studying the client's level of pain reduction post caesarean section using Benson relaxation techniques, because this technique is relatively simple, does not require a fee, and does not take a lot of time.

II. METHODS

The study design used a quasi experiment by design premises pretest and posttest design. The samples were given the intervention Benson relaxation two hours after the operation, after the effects of anesthesia was lost and conscious clients. Measurements were made over four days: the first day of the two-hour post surgery (before and after intervention Benson Benson relaxation) and the following 12 hours. Then the intervention continued to the second day, third, and fourth after postoperative every 12 hours. Measurement of pain was done within for four days every 12 hours.

The sample was maternal post caesarean section in the Cibabat hospital totaling of 30 people who met the inclusion criteria (willing to be responders, first birth by cesarean section, using ketoprofen therapy, using spinal anesthesia, awareness compos mentis, never got Benson relaxation exercises yet). Sampling technique was quota sampling. Data collection tool divided into two instruments: (1) instrument A was questionnaire concerning demographic characteristics of respondents, and (2) instrument B was using scale VAS pain

questionnaires. Data was collected from April-June 2008. Data was analyzed by univariate, and bivariate (dependent t test).

III. RESULT

A. Respondent characteristic

Table 1 Distribution of respondents according to education, employment, and the nature of Caesarean section in Cibabat hospital (n = 30)

No	Variable	Σ	%
1	Age ≤ 35 years	25	83.30
	> 35 years	5	16.70
2	Level of education		
	SD (elementary school)	5	16.70
	SMP (junior high school)	10	33.30
	SMA (senior high school)	13	43.30
	PT (undergraduate)	2	6.70
3	Occupation Have a job	13	43.30
	Do not have a job	17	56.70
4	Parity Primiparity	9	30.00
	Multiparity	21	70.00
5	Nature Emergency	20	66.70
	Elective	10	33.30

According to Table 1, it showed that the majority of respondents 25 people (83.30%) were aged ≤ 35 years old, the majority of respondents in were SMA 13 people (43.30%). Most respondents do not work as much as 17 (56.70%). At parity, most respondents were multiparity was 21 (70%). The nature of the majority of Caesarean section was emergency 20 (66.70%). For the intensity of pain can be seen in Table 2 below.

B. The pain intensity before intervention

Table 2 Distribution of respondents according to the intensity of pain before the intervention in Cibabat hospital (n = 30)

Variable	Σ	Mean	Median	Modus	SD	Min-Max
Intensity of pain: Among cesarean section mother	30	4.97	5.00	5.00	1.19	3.00-8.00

The results from the analysis the mean pain of respondents were 4.97 cm.

C. Relationship between Respondent Characteristics with Pain Intensity

Table 3 Relationship between characteristics of respondents with pain intensity before intervention in Cibabat (n = 30).

No	Variable	Pain intensity			
		N	Mean	SD	Pv
1.	Age				
	≤ 35 years	25	5.00	1.15	0.74
	> 35 years	5	4.80	1.48	
2.	Education				
	Basic	16	5.63	0.88	0.00
	Advanced	14	3.21	1.05	
3.	Occupation				
	Have a job	13	5.31	0.85	0.17
	Do not have a job	17	4.71	1.36	

4.	Parity Primiparity Multiparity	16 14	5.31 4.57	1.07 1.22	0.08
5.	Nature Emergency Elective	20 10	5.00 4.90	1.29 0.99	0.83

Based on Table 3, it showed that the correlation characteristics of respondents with pain intensity. The analysis found there were significant differences between education and pain intensity (P, 0.00; α = 0.05). There was no difference in mean significant association between parity with pain intensity (P 0.08, α = 0.05), between pain intensity with age (P, 0.74: α = 0.05), between occupation with pain intensity (P, 0.17; α = 0.05), and between the nature of Caesarean section with pain intensity (P, 0.83; α = 0.05).

D. The pain intensity after intervention

Table 4 Distribution of respondents according to the intensity of pain after the intervention in Cibabat hospital (n = 30).

Variable	Σ	Mean	Median	Modus	SD	Min-Max
Intensity of pain: Among cesarean section mother	30	2.63	2.56	2.63	0.69	1.60 - 4.1

The results from the analysis the mean pain of respondents were 2.63 cm.

A. The difference in average of pain intensity before and after intervention period in

Table 5 Distribution of the mean of pain intensity before and after the intervention period in Cibabat hospital (n = 30).

Pain Intensity	Benson Intervention (n=30)		
	Mean	SD	P value
Before intervention	4.97	1.19	
			0.00
After intervention	2.63	0.69	
Difference after-before	2.34	0.58	

Table 5 above shows that the mean of pain intensity before and after the intervention period. In the Benson intervention, the mean of pain intensity before being given Benson relaxation was 4.97 cm down to 2.63 cm after the intervention period, the difference in pain intensity difference was 2.34 cm. The analysis found a significant differences in average pain intensity in the intervention group before and after the intervention period (P value = 0.00, α = 0.05).

IV. DISCUSSION

1. Respondent Characteristic

a. Age

In this study, the majority (83.3) post-caesarean section maternal age ≤ 35 years old. This age group was safe for the mother to give birth[23]. This is consistent with the results of another study that the distribution of the age of post-caesarean section more than 50% were in the range ≤ 35 years[19,21]. Further research obtained results that the age of the mother at high caesarean section between the ages of 21-30 years (58.73%), [22] and a study found that maternal age was the highest caesarean section on maternal age group 20 - 30 years.[23]

b. Education

Mother's education level of post Caesarean section in this study the majority (43.30%) was senior high school education. This is consistent with research[19] obtained the results of client education level post Caesarean section most had a high school education (high school).

c. Occupation

In this study, the majority (56.7%) mothers did not work. This is consistent with a study obtained the results of the majority of respondents (51.9%) did not work.[19]

d. Parity

Most of the respondents (70%) were multiparity. This contrasts with the results of the study which showed that the frequency of caesarean section was higher in primiparous mothers.[23] This happens because the indications section on research is more due to medical reasons such as maternal multiparity severe pre eclampsia.

e. Nature of cesarean Section

The nature of mother majority of Caesarean section (66.7%) was the emergency nature. This happens because labor can be avoided by elective Caesarean section in nature, whereas the nature of the emergency was not. The nature of caesarean section for medical reasons can not be avoided. [24,5,3] This was in line with research[22,23] that the nature of the majority of Caesarean section was due to the medical nature.

2. Relationship between Characteristics of Respondents with Clients Pain Intensity Post Caesarean section.

a. Age

In this study it was found that age was not associated with pain intensity. It is contrary to the opinion[25,26] who said that age can affect pain intensity clients, increasing age, the more able to tolerate the pain, because the ability to understand and control pain often develops with age. Also emotional status plays an important role in the perception of pain, as it would increase the perception and make the pain impulses delivered faster. [20]

b. Education

In the results of this study found an association of education on pain intensity levels. This is in accordance with the opinion as said that the relationship of four concepts are: knowledge, attitudes, intentions, and behavior in relation to a person's participation in an activity. [27] Lack of knowledge about something, it will cause people to have a positive attitude towards it. The level of education was related with knowledge, one about how to cope with post-caesarean section pain[28]. This is consistent with the opinion[29] on the theory of transcultural environmental, in this case education is one of the factors that can influence a person's behavior.

c. Occupation

In this study there was no relationship between employment and pain intensity. This is in line with a study on the client caesarean section where it was found that there was no relationship of the employment to pain intensity. [19]

d. Parity

In this research found there was relationship of parity to the intensity of pain. Parity effect in receive and treat pain due to parity-related coping strategies in dealing with the experience of the pain experience. In primiparity pregnant, the possibility has been no experience of labor pain and how to cope than those whose mother's multiparity. This is in accordance with statement which said that the experience of pain before will affect the client's pain response. [30]

e. Nature of Caesarean section

In this study there was no significant correlation between the nature of Caesarean section with pain intensity. This is consistent with a research where the study found no differences between elective Caesarean section with emergencies within the pain level. [7] In this study the characteristics of the age, nature, and the work does not affect the intensity of pain, it may happen that the pain has a different meaning for each person. Pain has an important protective function by giving a warning that no damage is happening[31]. In addition it is likely that the intensity of pain experienced by clients affected by other factors such as environment and culture. At both hospitals where research, state data showed a calm and comfortable environment. Environment will affect the perception of pain. Bright, noisy environment can increase the intensity of pain and vice versa[9]. Besides the possibility of pain intensity is influenced by cultural factors. According to statement[30] culture has a role in tolerating pain. This aspect is very big impact on the psychological perception of pain. In research[6] found that cultural factors influence the perception of pain.

3. The difference in average pain intensity of the Respondents.

a. The difference in average pain intensity Prior Period Intervention

The result showed that the average pain intensity immediately after Caesarean section before the intervention period were included into the category of severe pain in the intervention group (4.97 cm). This is in accordance with statement[32] that the post-Caesarean section pain is moderate or severe pain. Likewise, a study found that 75% of surgical patients experience moderate to severe pain after surgery.[6] In addition a study showed that the pain caused by surgery on the abdominal wall pain was 10-15% by weight, 30-50% moderate pain, and more than 50% mild pain.[33]

b. The difference in average pain intensity after Intervention Period

In the study of both hospital showed that the intervention given to the mother post-Caesarean section pain intensity have a reduction effect on the client where there is a significant difference in decreasing mean pain intensity after the intervention given either the control or the intervention group. Average pain intensity immediately after the Caesarean section after the intervention period was included into the category of mild pain (2.63 cm) in the intervention.

c. The difference in average pain intensity before and after intervention period.

The samples that were given intervention Benson relaxation, pain reduction is resulting from the provision of Benson relaxation intervention. It can be seen from the decrease in pain intensity significantly more, namely 2.337 cm in given relaxation Benson intervention. Several studies found that this relaxation technique effective in reducing pain. [14,18,16,17] This is in line with research who found that the administration of spiritual interventions can reduce pain intensity clients post cesarean section more than the group that was not given the intervention. [19] The results were reinforced by several studies. [35,11,36,37,20]

CONCLUSION

The results found that Benson relaxation techniques proved to be the greatest influence on the decrease in pain intensity. Thus, the researchers suggest, especially the maternity nursing services are expected to use the technique of Benson relaxation as one of the standard operating procedures non pharmacological pain management in maternal post-caesarean section, as well as Benson relaxation training can be used as training material for nurses / midwives in the maternity room. As for future research are suggested: sampling techniques in future studies using random sampling techniques so as to better describe the population, need to do further research on practical experience Benson relaxation, as well as similar studies should also be done with the first parity, different tribes, and religious-based hospitals.

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