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The Effectiveness of Non-Pharmacological Therapy (Murottal Al-Quran) on The Reduction of Pain Intensity in Post Sectio Caesaria Women

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Abstract

Sectio caesaria (SC) surgery results in changes in tissue continuity due to surgery, which causes the release of inflammatory mediators and causes a sensation of pain. Postoperative pain management of SC can be given non-pharmacologically, one of which is Murottal. The aim of this study was to determine the effectiveness of non-pharmacological Murottal therapy in reducing the intensity of post-SC pain. This research is a quantitative research with a pre-experimental one group pretest-posttest design approach. This study carried out measurements before and after giving intervention with murottal therapy. The sample consisted of 82 post-SC mothers from 8 to 72 hours, with the consecutive sampling method. Measurement of pain intensity using the Bourbanis pain scale observation sheet was analyzed using the Wilcoxon test. The results showed that there was an effect of murottal therapy on reducing pain intensity in post sectio caesaria mothers. Wilcoxon test results obtained p value <0.05. Murottal therapy can be recommended as a non-pharmacological therapy to reduce pain intensity in Muslim patients after cesarean section.

Keywords: *Non Pharmacological (Murottal) Therapy, Post Sectio Caesaria Pain.*

1. Introduction

The delivery process is always expected to run physiologically, but it does not always run smoothly. The more diseases and complications that accompany pregnancy, it is possible that normal vaginal delivery cannot be carried out¹. One way of giving birth that can be done if there are many complications during childbirth is with Sectio Caesaria (SC). After the process of cesarean section surgery will cause a pain response. The pain felt by post partum

mothers after surgery comes from incision scars on the abdominal wall and the front of the uterus to deliver the fetus. Post sectio caesaria will cause severe pain and the recovery process will take longer than normal delivery ².

The increasing recognition of Caesarean section and shifting people's views on the method, is also followed by the increasing number of deliveries with cesarean section. In Indonesia alone, in general, the number of Caesarean deliveries in government hospitals is around 20-25% of total deliveries, while for private hospitals the number is very high, which is around 30-80% of total deliveries. The World Health Organization (WHO) recommends that the delivery rate with SC action should not be from 10-15%. The incidence rate of sectio caesaria in Indonesia according to the 2016 IDHS is 921,000 out of 4,039,000 deliveries or around 22.8% of all deliveries ³.

SC surgery causes changes in the continuity of body tissues ⁴. In preparation for the surgery process using anesthesia so that the patient does not feel pain ⁵. However, at the time after the surgery is complete and the patient begins to realize that he will feel pain in the part of the body that is undergoing surgery. The pain felt by the post-sectio caesarean mother comes from the wound in the lower abdomen of the uterus. No two individuals who experience the same pain produce identical pain responses or sensations in other individuals because pain is subjective ⁶. Anxiety often accompanies a painful event that occurs, threats of unclear origin and inability to control pain or surrounding events can exacerbate the perception of pain. Conversely, individuals who believe that they are able to control the pain they feel will experience a decrease in fear and anxiety which will decrease the perception of wound pain ⁷. The consequences of wound pain include coccidinia (trauma), fecal incontinence, urinary incontinence, constipation, dyspareuni. Pain management itself has 2 actions, namely pharmacology and non pharmacology. ⁸.

The aim of this study was to determine the effectiveness of non-pharmacological Murottal therapy in reducing the intensity of post-SC pain. One way to relax muscle tension is by listening to music or a soothing reading (Murottal Al-Qur'an). Music is an art that affects the physical center and sympathetic nervous system or the automatic nervous system, either directly or indirectly. Murrotal Al-Quran is a music that has a positive influence on the listeners. By giving music therapy, sound can reduce stress hormones, activate natural endorphin hormones, increase feelings of relaxation and divert attention from fear, anxiety and tension, improve the body's chemical system so that it lowers blood pressure and slows breathing, heart rate, pulse and brain wave activity ⁹. Murottal Al-Quran chanting is a music that has a positive influence on the listener ¹⁰. Based on the description above, the authors are interested in conducting research on the effectiveness of non-pharmacological murottal therapy on reducing the intensity of post-SC pain.

2. Materials and methods

2.1 Materials

This research is a quantitative research with a pre-experimental one group pretest-posttest design approach. This study carried out measurements before and after giving intervention with murottal therapy. The population of this study were all post-Sectio Caesaria (SC) mothers in the Melati Room, Dr. Sogiri Lamongan. While the sample of this study was 82 post-partum mothers 8-72 hours post SC, with consecutive sampling method. This research intervention provided Murrotal Al-Quran Surah Ar-Rahman therapy which was given 3 times / day during treatment, using a music player on a mobile phone or tape recorder and measuring pain intensity using a pain scale observation sheet according to Bourbanis.

2.2 Data collection procedures

The collected data was coded, processed, and analyzed using Wilcoxon test.

2.3 Data analysis

Processed with the help of SPSS 26.0 statistical software through the stages of editing, coding, tabulating, and scoring.

3. Results and discussion

3.1 General Data Characteristics of Respondents

Table 1. Distribution of Respondent Characteristics

Characteristics	Frequency	Percentage
Age		
<20 Years	12	14.6
20-35 Years	54	65.9
> 35 Years	16	19.5
Education		
SD	8	9.8
Junior High	17	20.7
High school	45	54.9
Diploma / PT	12	14.6
Profession		
IRT	45	54.9
Farmer	8	9.8
Private entrepreneur	16	19.5
Civil servants	7	8.5
	6	7.3
Parity		
1	23	28
2-4	54	65.9
≥ 5	5	6.1
Post SC wound history		
There is	24	29.3
Nothing	58	70.7

3.2 Special Data

3.2.1 Post SC Wound Pain Intensity Before Given Non Pharmacological Murottal Al-Quran Therapy.

Table 2. Distribution of Post SC Wound Pain Intensity in Post-partum Women Before Given Non-Pharmacological Murottal Therapy Al-Quran

Pain Intensity	Frequency	Percentage
No Pain (0)	0	0
Mild Pain (1-3)	24	29.3
Moderate Pain (4-6)	46	56.1
Severe Pain (7-9)	12	14.6
	82	100

Based on table 2, it shows that of the 82 post-SC puerperium mothers, more than half experienced moderate pain (56.1%) and a small proportion experienced severe pain (14.6%).

3.2.2 Post SC Wound Pain Intensity After Being Given Non Pharmacological Murottal Al-Quran Therapy.

Table 3. Distribution of Post SC Wound Pain Intensity in Post-partum Women After Given Non-Pharmacological Murottal Therapy Al-Quran

Pain Intensity	Frequency	Percentage
No Pain	8	9.8
Mild Pain	63	76.8
Moderate Pain	11	13.4
	82	100

Based on table 3, it shows that of the 82 post-SC parturition mothers, almost all (76.8%) of the respondents experienced minor wound pain and a small proportion of post-SC puerperium mothers (9.8%) had no pain in the wound.

3.2.3 Statistical Test Results

Table 4

Pain Intensity	Mean	SD	Min- Max	Z	P value
Before the Intervention	7,615	1,601	3-9	-3,753	.000
After Intervention	5,923	1,708	0-6		

Based on table 4, it shows that $Z = -3,753$ and $p = 0,000$ with a significant level of $\alpha = 0.5$ so that $p < 0.05$ so that H_1 is accepted, meaning that there is an effect between the provision of Murottal Al-Qur'an therapy on reducing post-SC wound pain in postpartum mother.

3.3 Discussion

3.3.1 Pain Intensity in Post Sectio Caesaria Mothers Before Given Non Pharmacological Therapy Murottal Al-Quran

Based on table 2, it shows that of the 82 postpartum women with sectio caesaria, more than half experienced moderate pain (56.1%) and a small proportion experienced severe pain (14.6%). This shows that the problem of pain in postpartum caesarean section mothers is still high and needs attention.

Postpartum sectio caesaria wound pain experienced by the mother can be influenced by many factors, including age, parity and a history of post-SC wounds. A mother who has given birth generally has experienced postpartum pain, especially with a mother with a history of delivery of cesarean section. Pain is individual, this can be seen from the difference in individual perceptions of pain so that the intensity of pain that is felt will be different. The results showed that the mother's age was less than 20 years. This greatly affects a person's coping patterns. When a person is experiencing pain and being treated in the hospital is very unbearable. The client continuously loses control and is unable to control the environment, including pain. Age maturity also affects a person's level of anxiety.¹¹.

Low parity or just giving birth for the first time or primiparous, then the intensity of pain felt is higher because the condition of the mother's birth canal has not been passed by the baby. Mothers who have a history of cesarean section delivery, tend to feel the intensity of pain to be smaller when compared to mothers who have just given birth for the first time, this is due to the experience of pain felt by the mother. Each individual learns from the experience of pain.

Previous pain experiences do not necessarily mean that the individual will accept pain easily in the future. If the individual has been experiencing a series of painful episodes for a long time without ever recovering or is suffering from severe pain, anxiety or even fear can arise. Conversely, if the individual experiences pain of the same type over and over again, but once the pain is eliminated, it becomes easier for the individual to interpret the pain sensation. As a result, the client will be better prepared to take the necessary actions to avoid pain¹²

3.3.2 Pain Intensity in Post Sectio Caesaria Mothers After Given Non Pharmacological Therapy Murottal Al-Quran

Based on the results of the study, it showed that of the 82 postpartum women with sectio caesaria, almost all (76.8%) of the respondents experienced minor wound pain and a small proportion of post-SC postpartum mothers (9.8%) had no pain in the wound. This shows that the problem of wound pain in postpartum sectio caesaria women after being given Murottal Al-Quran non-pharmacological therapy at a mild pain level.

Researchers argue that someone who is in a state of pain or experiencing things that affect comfort such as pain needs emotional and spiritual support. Emotional and spiritual support is very influential on the condition of a person's body. Spiritual support is very influential for someone, especially a Muslim. According to¹³, Murottal healing is a spiritual healing which the chanting originates from the Qur'an. Murottal is a recitation that comes from the holy book of Muslims being chanted. This Murottal of the Qur'an is recited softly and softly. So it is very comfortable for the listener. When listening to murottal, someone will reach a level of peace that can suppress the pain scale felt by post-SC wounds¹⁴, while listening to murottal chants of one's body will increase the production of natural endorphins, which this happiness hormone can divert pain, not only therapy. murottal Al-Qur'an also produces waves in the brain to relax the body so that the body will relax.

Murottal is a music that has a positive influence on the listener. Murottal is a recitation of the Koran that physically contains elements of the human voice that can reduce stress hormones, activate natural endorphins, increase relaxation, reduce anxiety, lower blood pressure, respiration, pulse, heart rate and brain wave activity¹⁵. According to¹⁶, explained that the brain wave components in music therapy stimulants and Al-Qur'an stimulants (Murottal) have in common, namely being dominated by delta waves. The existence of this delta wave indicates that a person's condition is very relaxed, so that this stimulant of the Qur'an can provide calm, tranquility and comfort for a person.

3.3.3 The Effectiveness of Non Pharmacological Murottal Al-Quran Therapy Against the Decrease in Pain Intensity of Post Sectio Caesaria

Based on the results of the study, it showed that the pain intensity before and after being given non-pharmacological murottal Al-Qur'an therapy was analyzed to determine whether the non-pharmacological murottal Al-Qur'an therapy was effective in reducing post sectio caesaria wound pain. The results of the analysis showed that $Z = 3.753$ or $p = 0.000$ with a significant level of $\alpha = 0.05$ so that $p < 0.05$ then H_1 was accepted, meaning that there was an effect of non-pharmacological murottal Al-Qur'an therapy on reducing the intensity of post sectio caesaria wound pain.

Murottal is a chant of the Qur'an which physically contains elements of the human voice which can reduce stress hormones, activate natural endorphins, increase relaxation, reduce anxiety, lower blood pressure, respiration, pulse, heart rate and brain wave activity¹⁷. The brain wave components in music therapy stimulants and Al-Qur'an stimulants (Murottal) have in common, they are dominated by delta waves. The existence of this delta wave indicates that a person's condition is very relaxed, so that this stimulant of the Qur'an can provide calm, tranquility and comfort for a person. Meanwhile, according to¹⁸ when someone listens to

murrotal therapy, the electrical waves in the listener's brain can be slowed down and accelerated. The recitation of the Koran that is sung at a slow and gentle tempo full of appreciation can cause a relaxation response.

In addition, murrotal reading contains verses that can bring the subject closer to God and guide the subject to remember and submit all problems to God. This will add to the relaxing effect¹⁹. Murrotal letter Ar-Rahman which is played through a music player on a mobile phone or tape recorder can emit sound waves or sounds that experience vibrations to produce sound waves that can be heard by the ear, then transmitted to the Nervus Vestibulocochlearis (N.VIII) and converted into electrical impulses then passed to the cerebral cortex. If the sound or voice is well perceived it causes calm. This causes the hypothalamus and anterior hypofise to release endogenous β endorphins which in turn will occur interactions between stressors and pain stimuli. This mechanism will reduce histamine, bradykinin, serotonin, and peptide substances so that pain decreases²⁰. When The murrotal letter of Ar-Rahman is played while the patient's room looks calm and can perform early mobilization, this proves that the pain sensation felt by the patient can be distracted. Al-Quran reading therapy can also synergize with pharmacological therapy in reducing pain, where this therapy can provide non-pharmacological adjuvant effects in reducing pain²¹.

In line with the results of other studies that murrotal therapy has an effect on decreasing the pain scale in patients with ulcer wounds, where the average respondent's pain scale before being given murrotal therapy is 5.73 whereas after being given murrotal therapy there is a changed in the average respondent's pain to an average of 3,73²². The results of research conducted by Ahmad Al Khandi, the main director of the Islamic Medicine Institute for Education and Research in Florida, United States, with the results of his research that listening to the holy Koran has a significant effect in reducing reflective nerve tension.

Thus, the provision of non-pharmacological murrotal Al-Qur'an therapy is very effective in reducing postpartum sectio caesaria wound pain. This is because the non-pharmacological murrotal Al-Qur'an therapy can produce natural endorphins in the body so that it can divert the pain experienced²³. It is hoped that it can be used as a standard operational procedure in the hospital as one of the non-pharmacological interventions in reducing pain intensity in postpartum cesarean section mothers.

4. Conclusion

Based on the research objectives regarding the effectiveness of non-pharmacological murrotal Al-qur'an therapy to reduce pain intensity in postpartum sectio caesaria mothers. Researchers can draw the following conclusions: (1) More than part of the intensity of wound pain in postpartum caesarean section women experienced moderate pain, (2) Almost all postpartum women with sectio caesaria after being given non-pharmacological Murrotal Al-Quran therapy experienced a decrease in the intensity of wound pain from moderate to mild pain, (3) Murrotal Al-qur'an non pharmacological therapy is effective in reducing the intensity of wound pain in postpartum sectio caesaria women. The results of this study can be used as initial data for further research. It is recommended to take a larger sample and use another method so that the research results are more representative and can be generalized.

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Conflict of interest

In this research, there are no conflicts of interest.

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