

Implementation of Deep Breathing Relaxation and Al-Quran Recitation in Reducing Acute Pain in Post-Op Sectio Caesarea Patients: A Study Case

Musviro¹, Ainun Syarifatul Fitriyah¹, Nurul Hayati¹, Laili Nur Azizah¹, Anggia Astuti¹

¹ Faculty of Nursing, Universitas Jember, Indonesia

Correspondence should be addressed to:
Musviro
musviro@unej.ac.id

Abstract:

Acute pain frequently affects post-cesarean section patients and, if left unmanaged, can slow recovery and potentially lead to chronic pain. Non-pharmacological methods like Deep Breathing Relaxation combined with Murottal Al-Quran therapy offer a promising solution to alleviate this pain. This case study examines the effectiveness of these techniques in reducing acute pain post-cesarean section in the Teratai Ward of Dr. Haryoto Regional General Hospital, Lumajang. Therapy involves daily 20-minute sessions of QS Ar-Rahman (78 verses) recited by Qori' Ahmad Saud via MP3. The participant was a patient meeting specific criterion: hospitalized for at least 3 days, with moderate pain levels (NRS score), exhibiting signs such as pain complaints, grimacing, protective behaviors, sleep difficulties, of Islamic faith, and with no hearing impairments. Pain levels were measured using the Numeric Rating Scale (NRS) before and after the intervention. Results showed a notable reduction in pain over the 3-day intervention, with the NRS score decreasing from 7 (moderate) to 4 (mild), accompanied by reduced grimacing, less protective behavior, and improved sleep quality. This study suggests that combining deep breathing relaxation and Murottal Al-Quran offers significant pain relief for post-cesarean patients. It is practical and cost-effective, allowing it to be easily implemented by nursing staff starting from the first-day post-surgery. These findings highlight a feasible approach for pain management in post-cesarean care, providing an effective and accessible option that aligns with the needs of Islamic patients, ultimately enhancing their comfort and recovery process.

Article info:

Submitted:
20-11-2024
Revised:
17-12-2024
Accepted:
18-12-2024

Keywords:

Quranic murottal; acute pain; deep breathing relaxation; sectio caesarea

DOI: <https://doi.org/10.53713/htechj.v2i6.297>

This work is licensed under CC BY-SA License.



INTRODUCTION

The process of giving birth by cesarean section is influenced by fetal malposition, severe preeclampsia, premature rupture of membranes, and a history of giving birth by previous cesarean section (Arda & Hartaty, 2021). Post-caesarean section, mothers will feel severe pain in the incision area, and wound healing will take a long time compared to normal delivery (Purwati et al., 2019). The main problem felt after a cesarean section is pain. Pain, if not treated properly, will cause a response of discomfort in the patient, thus inhibiting recovery.

According to the World Health Organization (WHO), 10 to 15% of all births using the cesarean section method without any special indications in each country have reached 2.10%. In Indonesia, the number of cesarean sections has increased by 45.3%, and spontaneous methods achieve the rest. The results of the 2018 Riskesdas in East Java showed that deliveries in health facilities were 95.3%. According to the Indonesian Ministry of Health in East Java, in 2019, SC accounted for 20% of all deliveries (Ningtias et al., 2023). At Dr. Haryoto Lumajang Regional Hospital in 2013. In 2023, the number obtained was 895. In January to March 2024, the number obtained was 72.

A cesarean section is performed when the birth process cannot be carried out spontaneously due to the condition of the mother or fetus (Bariyah et al., 2023). A narrow maternal pelvis also indicates a cesarean section (Herdiani, 2023). On the first day of CS, pain will be more dominant. This is because, psychologically, it causes an anxious effect on the pain felt after the analgesic effect wears off (Susanti et al., 2023). The nursing problem that arises after this CS delivery is acute pain (Safitri & Primadevi, 2022). Pain arises due to a tear or incision to remove the baby (Susilawati et al., 2023). The level of pain felt is higher at around 27.3% compared to spontaneous birth at 9%. This can cause new problems, including limited activity in daily living (ADL), decreased sleep quality, anxiety, impaired mobilization, and feelings of fear (Wahyu & Lina, 2019).

The pain usually goes away on its own. Suppose this pain response is not handled properly. In that case, the pain will develop into chronic pain, which causes the mother to experience continuous pain sensation, and the closeness of the baby and mother will be disturbed so that it can affect the production of breast milk (ASI). Therefore, it is necessary to accelerate the mother's recovery process, especially by reducing pain (Mata & Kartini, 2020). Pain in cesarean section can be overcome with pharmacological and non-pharmacological interventions (Susilawati et al., 2023). According to PPNI (2018), acute pain intervention involves pain management. Pharmacological action can be done by giving painkillers. Non-pharmacological actions that can be given for acute pain are breathing relaxation techniques that function to relax the body's muscles to reduce pain in post-SC (Bariyah et al., 2023).

Murottal Al-Quran is the chanting of Al-Quran verses sung by a qori' (Wahyuningsih & Khayati, 2021; Saputri et al., 2024). Murottal with Surah Ar-Rahman has a slow tempo which is 79.8 bpm which ranges from 60 to 120 bpm. A slow tempo can harmoniously reflect a person's heartbeat, then the heart will match the rhythm according to the tempo of the sound (Sukmalara & Fitria, 2021). Murottal with a slow tempo has a relaxing effect on the body so that blood pressure and heart rate decrease. With a decrease in blood pressure, the pain response felt by post-SC mothers on the first day will decrease more quickly (Nurhidayah et al., 2024). So, deep breathing relaxation when combined with Al-Quran murottal is expected to be able to increase the effectiveness of therapy by accelerating the reduction of acute pain in post-section cesarean.

STUDY DESIGN

The research design used is a case study. The location is in the Lotus Room of Dr. Soetomo Hospital. Haryoto Lumajang in 2024. This activity took place while the patient was being treated, from 4 to 6 June 2024. Data collection was carried out through interviews, observations, and documentation studies. The tools used for measurement were watches and sound systems to listen to MP3 murottal QS. Ar-Rahman 78 verses. The analysis was carried out by recording changes in pain before and after the intervention and the patient's response to the intervention.

This report obtained ethical approval from KEPK with ethics number 159/UN25.1.14/KEPK/2024, and informed consent was obtained from the patient before data collection, maintaining anonymity and confidentiality of information during the study.

PATIENT INFORMATION

The participant in this case study was one patient, namely Mrs. M, female, age 21 years, Muslim religion, high school education, working as a farm laborer, patients meet the inclusion criteria, namely patients treated in the Lotus Room with a medical diagnosis of post-cesarean section; experiencing acute pain nursing problems showing signs of major symptoms such as pain

complaints, grimacing, protective behavior, and difficulty sleeping; moderate pain scale; do not have hearing disorders; are Muslim; and are willing to participate by signing the Informed Consent sheet.

CLINICAL FINDINGS

Mrs. M complained of pain in the area of the former operation in the abdomen, pain scale 7 (moderate), with pain that comes and goes in about 3-5 minutes. Observation showed the patient's face looked grimaced and protective, with a body position that avoided pain. The patient also often wakes up due to the pain he feels. On examination of the wound, there is a scar of a cesarean section on the abdomen, in a transverse shape with a length of about 15 cm. Vital signs show blood pressure of 135/90 mmHg, pulse 105 times per minute, and respiratory rate 20 times per minute.

Obstetric history shows that Mrs. M is a primigravida, with a history of menarche at the age of 14 years, regular cycles, and complaints of abdominal and back pain during menstruation. This first pregnancy experienced premature rupture of membranes so a CS was performed. Sleep patterns were disturbed due to pain. Supporting examinations, blood laboratory, showed hemoglobin 11.6 g/dL and leukocytes 11,880/uL.

The nursing diagnosis experienced by Mrs. M is acute pain related to physical injury agents (surgery) as evidenced by the patient's pain in the surgical wound, grimacing facial expression, protective attitude to avoid pain, and difficulty sleeping.

THERAPEUTIC INTERVENTION

Nursing interventions for Mrs. M can be explained in Table 1 below.

Table 1. Nursing Interventions

Diagnosis Nursing Acute	Objective	Intervention
pain due to surgery dd patient complains of pain, patient appears to be grimacing, patient is acting protective and pain scale is 7	After nursing actions are carried out for 3x24 hours, it is expected that the patient's pain level will decrease with the following outcome criteria: (L.08066) 1. Complaints painful down (5) 2. Grimace decreased (5) 3. Decreased protective attitude (5) 4. Difficulty Sleep improving (5)	Pain management (I.08238) Observation 1. Identify the location, characteristics, duration, frequency, quality, intensity of pain. 2. Identify the pain scale 3. Identify non-verbal pain responses 4. Identify factors that aggravate and alleviate pain. 5. Identification of knowledge about pain 6. Identify the impact of pain on quality of life Therapeutic 7. Provide non-pharmacological techniques to reduce pain (relaxation therapy and murottal therapy) 8. Consider the type and source of pain when selecting strategies for pain relief. 9. Control the environment that aggravates the pain. 10. Facilitate rest and sleep Education 11. Explain the causes, periods and triggers of pain. 12. Explain pain relief strategies 13. Encourage self-monitoring of pain 14. Teach non-pharmacological techniques to reduce pain. painful Collaboration 15. Collaboration with the administration of analgesics, if necessary.

The intervention planned by the author is pain management. Of the 19 interventions in pain management, the author planned 15 interventions that are appropriate to the patient's condition.

Table 2. Nursing Implementation

Day 1 (Tuesday, June 04, 2024)	Day 2 (Wednesday, June 05, 2024)	Day 3 (Wednesday, June 05, 2024)
1. characteristics, quality, intensity of pain, frequency	1. Identify the location, characteristics, quality, intensity of pain, frequency	1. Identify the location, characteristics, quality, intensity of pain, frequency
2. Identify the pain scale. P: pain increases when moved Q: sharp pain like being stabbed R: pain in the stomach from the CS operation scar, and pain radiating to the back. S: pain scale 7 (moderate). T: pain comes and goes ± 3-5 minutes)	2. Identifying the scale of pain. P: pain increases when moved, moves Q: sharp pain like beingstabbed – stabbed R: stabbing pain R: pain in the stomach in the stomach scar, from a c-section. S: c-section, and pain scale 5 T: pain that spreads to the back. S: pain scale 6 (only).	2. Identifying the scale of pain. P: pain increases P: pain decreases when pain, when moved, moves Q: sharp pain Q: sharp pain like beingstabbed – scar, from a c-section. S: pain scale 6 (only).
3. Identifying the impact of pain on quality of life	3. Performing an examination (recurrence and disappearance ± 3-5 minutes)	3. Performing an examination (recurrence and disappearance ± 3-5 minutes)
4. Identifying knowledge about pain. (If the pain does not subside, the patient is disturbed)	4. Giving Deep breathing relaxation techniques and Al-Quran recitation according to SOP	4. Giving Deep breathing relaxation techniques and Al-Quran recitation according to SOP
5. Perform a TTV examination (BP: 135/90 mmHg, N: 105x/minute)	5. Identify the pain scale	5. Identify the pain scale (pain scale 4)
6. Teach non-pharmacological techniques to reduce pain.	6. Conduct education that	6. Conduct education that

DISCUSSION

The evaluation results on Mrs. M found that on the first day Mrs. M complained of pain around the area of the surgical scar on the stomach with an initial pain scale of 7, appeared to be grimacing, acting protectively, blood pressure 130/90 mmHg, pulse 90 times/minute, and respiratory rate 20 times/minute, often waking up during sleep. The evaluation results showed that the pain had not been completely resolved, so the intervention was continued. On the second day, the patient reported still complaining of pain: the pain decreased to 5, and sleep began to improve, the expression was grimacing and acting protectively; blood pressure was recorded as 125/82 mmHg, pulse 85 times/minute, and respiratory rate 22 times/minute. The assessment results concluded that acute pain was partially resolved, so therapy was continued. On the third day, the pain scale decreased to 4, and the patient reported better sleep. The expression of grimacing and protective attitudes decreased, accompanied by stable vital signs. Based on this evaluation, the assessment showed that the pain had been resolved.

Non-pharmacological implementation with one of them deep breathing relaxation and murottal Al-Quran, given for three consecutive days. Each session is done once a day with a duration of 20 minutes, using audio murottal QS. Ar-Rahman 78 verses by qori Ahmad Saud. On the first day, June 4, 2024, the author taught the patient deep breathing relaxation techniques to support independent pain management. The techniques taught include the procedure of inhaling through the nose for 3 seconds, holding it for 5 to 10 seconds in the diaphragm, then exhaling through the mouth slowly. This deep breathing therapy was combined with murottal Al-Quran for 20 minutes. Before and after therapy, the patient's pain scale was measured to see changes. On the second and third days, the same technique was given until it showed a decrease in pain intensity. In addition to

relaxation and murottal therapy, patient Mrs. M also received pharmacological pain management in the form of collaborative administration of analgesics. The administration of these analgesics is scheduled three times a day, according to advice.

According to research by Nurhidayah et al. (2024) and the PPNI guidelines (2018), deep breathing relaxation therapy combined with Al-Quran recitation can help manage pain in post-CS surgery patients, such as in the case of Mrs. M. The evaluation results of the implementation of deep breathing relaxation therapy and Al-Quran recitation showed a significant decrease in pain intensity. Based on the measurement of the pain scale, there was a gradual decrease from a scale of 7 on the first day to 4 on the third day. This is consistent with the theory in the Indonesian Nursing Intervention Standards (SIKI), which emphasizes that pain management carried out appropriately and immediately can prevent negative impacts on the psychological and physiological aspects of patients, such as sleep disorders and difficulty communicating.

According to Smeltzer and Bare's theory (2004), deep breathing relaxation helps relax tense muscles and increases blood circulation to the painful area. In addition, Al-Quran murottal therapy, based on research by Fratama et al. (2024), is able to reduce pain intensity through the mechanism of sound waves that affect pain receptors and stimulate the brain to release endorphins, which act as pain relievers. The author notes that the interventions provided are in accordance with existing theories, with relaxation therapy and Al-Quran murottal as effective and simple methods to support pain management.

The implementation of deep breathing relaxation therapy and Al-Quran recitation is applied after giving analgesics, especially when the analgesic effect begins to decrease. Relaxation therapy and Al-Quran recitation can be an effective non-pharmacological therapy because it is easy to do, according to the patient's beliefs and provides benefits to the patient. In the case of Mrs. M, the QS. Ar-Rahman recitation therapy provides a positive psychological effect by providing calm and comfort, as well as focusing the patient's attention from pain to a better condition.

CONCLUSION

Implementation of deep breathing relaxation combined with murottal Al-Quran which is done for 3 days, once a day with a duration of 20 minutes using QS Ar-Rahman 78 verses read by qori' Ahmad Saud can reduce the level of pain in post sectio caesarea patients from a scale of 7 (moderate) to 4 (mild) on the third day. This therapy can performed on post-cesarean section patients in reducing acute pain. Postpartum nurses can apply this therapy in the implementation of pain management.

ACKNOWLEDGEMENT

The author would like to thank the University of Jember, the Director of RSUD dr. Haryoto Lumajang, Nurses and participants. The author declares that there is no conflict of interest with any parties involved in this research activity.

CONFLICT OF INTEREST

This research was conducted without any conflict of interest. All findings and conclusions are based solely on the research objectives and data collected, thus ensuring objectivity and transparency throughout the process.

REFERENCES

- Arda, D., & Hartaty, H. (2021). Implementation of Post Op Section Caesarea Nursing Care in Severe Preeclampsia Indications. *Sandi Husada Scientific Journal of Health*, 10(2), 447–451. <https://doi.org/10.35816/jiskh.v10i2.631>
- Bariyah, N., Nuryanti, Y., Fabanjo, I., & Sawasemariay, O. (2023). Application of Deep Breathing Relaxation Techniques to Reduce Pain in Post-Caesarean Section Patients in the Mansinam Room of the Manokwari Navy Hospital. *Nursing Update Journal*, 14(3), 421–428.
- Fratama, F., Fauziah, E., & Hutagaol, R. (2024). Utilization of Al-Qur'an Murottal Therapy as a Non-Pharmacological Therapy to Reduce Pain in Post-Operative Patients: Literature Review. *Journal of Health Scale*, 15(1), 33–39. <http://ejurnal-skalakesehatan.com><http://ejurnal-citrakeperawatan.com>
- Herdiani, TN (2023). The Effect Of Deep Breath Relaxation Techniques On Post Sectio Caesarea Pain At Hospital Rupit. 4(1).
- Mata, Y., & Kartini, M. (2020). The Effectiveness of Massage in Pain Reduction of Post Caesarean Section Patients. *Jurnal Kesehatan*, 9(2), 58–75.
- Ningtias, O., Isnawati, A., & Yunita, R. (2023). The Effect of Combination of Deep Breathing Relaxation and Warm Compresses on Pain Intensity of Post-OP Sectio Caesarea (SC) Patients at Dr. Abdoer Rahem Situbondo Regional Hospital. *Mandira Cendikia Health Science Journal*, 2(10), 202–211.
- Nurhidayah, Ayu, F., Risnah, & Arbianingsih. (2024). Analysis of Nursing Care for Patients with Acute Pain from Caesarean Section Operation with a Combination of Murottal Therapy and Slow Deep Breathing Therapy at Wahidin Sudirohusodo Hospital. *Midwife Academy*, 1(2), 68–78. <https://doi.org/10.24252/jmw.v6i1.40242>
- PPNI. (2017). *Indonesian Nursing Diagnosis Standards: Definition and Diagnostic Indicators* (Edition 1). DPP PPNI.
- PPNI. (2018). *Indonesian Nursing Intervention Standards: Definition and Nursing Actions* (1st ed.). DPP PPNI.
- Purwati, E., Machmudah, M., & Khayati, N. (2019). Terapi Murottal Al-Qur'an Menurunkan Intensitas Nyeri Post Sectio Caesarea di Rumah Sakit Roemani Muhammadiyah Semarang. *Jurnal Ilmu Keperawatan Maternitas*, 2(1), 35–43. <https://doi.org/10.32584/jikm.v2i1.298>
- Safitri, I., & Primadevi, I. (2022). The Effect of Al-Qur'an Recitation Therapy Surah Alfatihah on Reducing the Intensity of Labor Pain in Women Giving Birth in the First Active Phase in the Work Area of the West Kelumbayan Health Center. *Aisyah Maternity Journal (JAMAN AISYAH)*, 3(3), 186–197. <https://doi.org/10.30604/jaman.v3i3.724>
- Saputri, J. P. R., Kurniyawan, E. H., Dewi, E. I., & Kusumaningsih, A. (2024). Analysis of the Application of Murottal Al-Quran to the Signs and Symptoms of Hearing Hallucinations. *Health and Technology Journal (HTechJ)*, 2(5), 478-486. <https://doi.org/10.53713/htechj.v2i5.240>
- Sukmalara, D., & Fitria, N. (2021). The Effectiveness of Al-Qur'an Recitation Therapy of Surah Ar-Rahman on Afiat, 1–12. Reduction of High Blood Pressure in the Elderly. 7(1). <https://doi.org/10.34005/afiat.v7i1.2140>
- Susanti, S., Sugiyah, & Hamiyah, Siti. (2023). Implementation Of Lavender Aromatherapy In Post-Section Caesarean (Cs) Patients With Pain And Discomfort Problems. *Journal of Research Innovation*, 3(1), 7841.
- Susilawati, Kartaatmadja, FSU, & Suherman, R. (2023). The Effect of Deep Breathing Relaxation Techniques on Pain Intensity of Postpartum Patients with Caesarean Section in the Postpartum Care Room of Sekarwangi Hospital, Sukabumi. *Ahmar Metastasis Health Journal*, 3(1), 33–36. <https://doi.org/10.53770/amhj.v3i1.192>
- Wahyu, H., & Lina, LF (2019). Warm Compress Therapy with Jasmine Essential Oil Aroma to Reduce Pain Intensity in Post Sectio Caesarea Patients. *Journal of Telenursing (JOTING)*, 1(2), 406–415. <https://doi.org/10.31539/joting.v1i2.860>
- Wahyuningsih, E., & Khayati, N. (2021). Murottal Therapy Reduces Pain Levels in Post-Caesarean Section Patients. *Ners Muda*, 2(1), 1. <https://doi.org/10.26714/nm.v2i1.6214>