



## APPLICATION OF DEEP BREATHING TECHNIQUES IN REDUCING POST SECTIO CAESAREA PAIN

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### Abstract

**Introduction:** This case study is motivated by the increasing number of sectio caesarean deliveries. The number of deliveries using the Sectio Caesarea (SC) method in West Java reached 15.48% of 5,850 people. Problems that arise after sectio caesarea are a pain in the incision wound caused by the tearing of the tissue. tissue.

**Objective:** This case study aims to determine the description of nursing care for Mrs. E P3A2 with acute pain problems in the Postpartum Room of Al Ihsan Hospital, West Java Province.

**Method:** The case study method in this scientific paper uses the case study method.

**Result:** Results after five days of nursing action Mrs. E with the problem of acute pain can be resolved assisted by non-pharmacological measures. pharmacological deep breath relaxation techniques and the pain scale decreases every day.

**Conclusion:** The management of deep breath relaxation techniques was able to reduce the pain scale in Mrs. E P3A2 with acute pain problems. It is recommended that the nursing profession be directly involved in handling care in post-SC patients with acute pain problems.

**Keywords:** Sectio Caesarea, Acute Pain, Deep Breath Relaxation Technique

## INTRODUCTION

The maternal mortality rate (MMR) in Indonesia is still the highest in Southeast Asia and is still far from the SGD global target to reduce MMR to 183 per 100,000 KH by 2024 and less than 70 per 100,000 KH by 2030 (Menkes RI, 2020). According to the Directorate General of Public Health (2022), the number of maternal deaths collected from the family health program records at the Ministry of Health has increased every year. In 2021 it showed 7,389 deaths in Indonesia. This number shows an increase compared to 2020 of 4,627 deaths (2).

The direct causes of maternal mortality are hypertensive disorders in pregnancy (33.1%), obstetric bleeding (27.03%), non-obstetric complications (15.7%), other obstetric complications (12.04%), pregnancy-related infections (6.06%), and other causes (4.81%) (Menkes RI, 2020). Efforts to prevent maternal deaths during childbirth if complications are found, alternative actions can be taken that can help mothers and babies, namely by making an incision to open the abdominal wall so that the baby can be removed, namely Sectio Caesarea (SC).

The rate of delivery using the Sectio Caesarea (SC) method in West Java reached 15.48% of 5,850 people (8). In general, patients after Sectio Caesarea surgery often face several problems including pain, limited mobilization, bonding attachment being disrupted /

cannot be fulfilled, Activity of Daily Living (ADL) is disrupted, ADL is disrupted, and ADL is disrupted. fulfilled, Activity of Daily Living (ADL) is disrupted, and Early Contact cannot be fulfilled due to an increase in pain intensity (A. Pur. there is an increase in pain intensity (7).

Pain management strategies include both pharmacological and non-pharmacological approaches. All interventions will be very successful if carried out before the pain becomes more severe and success is often achieved if several interventions are applied simultaneously (3). Combining non-pharmacological methods with drugs is the most effective way to control pain. Non-pharmacological pain control is easier, more effective, and without adverse side effects (5).

If pain is not addressed it can cause discomfort, for this reason, more effective treatment is needed to minimize the pain experienced by patients. To fulfill comfort and improve the quality of life of patients with pain, nurses play an important role in meeting these basic needs (12).

A preliminary study conducted on March 15, 2023, by nursing students Applied Bachelor of Nursing Department of Poltekkes Kemenkes Bandung at the Obstetrics Clinic of Al-Ihsan Hospital, West Java Province, there were as many as 693 mothers who performed caesarean sections from January 2022 to December 2022.

Based on the above background, the author is interested in doing nursing care with the title "Nursing Care for Mrs. E P3A2 Post Sectio Caesarea Post Op Day 2 with Acute Pain Problems in the Nifth Room. Acute Pain Problem in the Postpartum Room of Al Ihsan Hospital, West Java Province"

## **METHODS**

**Method** This scientific paper uses a descriptive method where the author describes the results of nursing care by focusing on one problem, namely acute pain in post sectio caesarea mothers through a case study approach. The purpose of this case study approach is to describe nursing care in post sectio caesarea patients with acute pain problems. The subject to be carried out in this case study is a post sectio caesarea mother with acute pain problems, as many as one patient.

The focus of the study is nursing care for post sectio caesarea patients with acute pain problems, which will be carried out in the Postpartum Room of AL-Ihsan Hospital, West Java Province. This case study was conducted from April 10 to April 19, 2023. Data collection was carried out starting from the results of interviews with patients, nurses, and other medical personnel using the nursing care assessment format. Then observed using observation sheets and Numeric Rating Scale sheets as well as head-to-toe physical examinations through IPPA (Inspection, Pallpalsi, Percussion, and Auscultation). The data analysis process was carried out since the case study in the field was recorded and presented using narrative text.

## **RESULTS AND DISCUSSION**

The assessment was carried out on Thursday, April 13, 2023, and the patient's data was obtained as Mrs. E with the age of 37 years, Register No. 00-766196, the patient's last education was junior high school and worked as a housewife whose address was Jl. Munjul Kp. Pasar kemis, manggahang, kec. Baleendah. The patient entered the hospital on Tuesday, April 11, 2023, with a medical diagnosis of P3A2 SC Spinal + MOW on the indication of latitude + former SC. The patient's main complaint was acute pain. Patient Mrs. E P3A2 said she was 39 weeks pregnant and complained of abdominal pain, the patient checked with the doctor and the doctor said the baby's location was transverse so the doctor recommended a cesarean section. The patient went to AL-Ihsan Hospital on April 11 at 16.00 to the postpartum room at Al-ihsan Hospital to wait for the SC surgery as recommended by the doctor. The patient reported pain in the surgical wound. The pain

increased when the patient changed position and decreased when resting or after being given medicine. The pain felt like throbbing in the surgical wound and did not spread anywhere. Pain is felt on a scale of 6 (0-10) lasts about 5 minutes and is felt to disappear. The patient said he did not have any infectious or declining diseases, the patient said he had been hospitalized for undergoing Sectio Caesarea in his 2nd child and did not have any genetic or infectious diseases such as hypertension, heart disease, diabetes, tuberculosis, hepatitis, etc. Mrs. E Compos Mentis Glasgow Coma Scale 15, the patient looked grimacing with Vital Signs: blood pressure: 113/78, pulse: 92x/min, respiration: 20x/min, temperature: 36°C. While in the hospital, the patient ate three times a day with rice, vegetables and fruit. The portion spent is 1 small portion, the patient has no complaints, allergies, abstained foods or supplements consumed. The patient drinks approximately 1500 ml of water per day. The patient has not defecated and has a dower catheter attached, urine is clear yellow. The patient is only able to rest 4-5 hours at night and 1 hour during the day, as for things that make it easier to wake up the patient is in a hot room, and pain is felt in the operating wound. When at the hospital the patient was wiped 1x and changed underwear every time he changed the dressing. Laboratory examination on April 12, 2023, obtained abnormal results with a Lekocyte result of 15,160 within the reference value of 3800-10600.

There were 3 diagnoses raised based on the data obtained and data analysis that had been carried out including acute pain related to physical injury agents (postoperative wounds) characterized by there is a pain in the operating wound with a scale of 6 (0-10), disturbance of sleep patterns related to postoperative wound pain d.d Patients complain that what makes it easier to wake up is a pain in the operating wound, and risk of infection d.d there is a surgical wound covered with gauze  $\pm$  10 cm.

Nursing planning in this case study was made based on Standard Nursing Intervention Indonesia (2018) and Standardized Nursing Outcomes Indonesia (2017). For the first diagnosis, namely acute pain, after 1x7 hours of nursing action, it is hoped that acute pain can be resolved with the outcome criteria that the patient does not complain of pain, the patient does not appear to grimace, the pain scale decreases, does not behave protectively, and the pulse frequency improves with the intervention of identifying pain characteristics, monitoring vital signs, identifying pain scales, teaching non-pharmacological techniques of deep breath relaxation techniques, explaining the causes, periods and triggers of pain as well as collaborating with the administration of analgesics. For the second diagnosis, namely sleep pattern disorders, it is expected that after 1x7 hours of nursing action, it is expected that sleep pattern disorders can be resolved. with the criteria for the results of the client's complaints of difficulty sleeping decreased, complaints of sleep patterns changed, and complaints of insufficient rest decreased with the intervention of identifying sleep activity patterns, identifying sleep disturbing factors (physical and/or psychological), identifying foods and drinks that disturb sleep (eg coffee, tea, alcohol, eating and approaching bedtime, drinking plenty of water before bed), environmental modifications (eg lighting, noise, temperature, mattress, and bedding), limit nap time, if necessary, carry out procedures to increase comfort, adjust the schedule for administering drugs and/or actions to support the sleep cycle awake, and explain the importance of adequate sleep during illness. The last diagnosis taken is the risk of infection, it is hoped that after 1 x7 hours of nursing action, the patient can recognize signs & symptoms that identify risks in the spread of infection, know how to reduce transmission of infection and know activities that can increase infection with interventions that will be carried out are monitoring signs of infection, limiting the number of visitors, washing hands before and after contact with patients, and explaining the signs and symptoms of infection.

Nursing implementation is carried out in accordance with the planning that has been made, for the first day the nurse always washes her hands before and after contact with the patient, and observes vital signs obtained the results of blood pressure 115/80 mmHg, temperature: 36.5C, pulse: 92x/min, and respiration: 20x / min, identifying pain

characteristics, explaining the causes, periods and triggers of pain, giving analgesic drugs (ketorolac 1 ampoule 10mg Intravena), For the second day the implementation was carried out observing the vital signs with the results of blood pressure: 120/75 mmHg: temperature : 36.9 ° C, pulse: 92x/min, respiration: 20x/min, identifying pain characteristics at 08.30 and 12.00, teaching non-pharmacological techniques of deep breath relaxation techniques to reduce pain at 08.30 and 12.00, identifying pain characteristics again after deep breath relaxation techniques at 08.30 and 12.00, administering analgesic drugs (ketorolac 1 ampoule 10mg Intravena). On the third day, the implementation of vital signs observation was carried out with the criteria for the results of blood pressure: 117/90 mmHg, temperature: 36,2 ° C, pulse: 90x/min, respiration: 20x/min, Oxygen Saturation: 97%, identifying pain characteristics, reteaching non-pharmacological techniques, identifying pain characteristics after nonpharmacological measures are taken, giving ketoprofen analgesic drugs 1 tab.

On the fourth day, vital signs monitoring was implemented and the results were obtained blood pressure: 121/80 mmHg, temperature: 36.9°C, pulse: 86x/min, respiration: 18x/minute, and oxygen saturation 99%, identifying pain characteristics, reteaching non-pharmacological techniques, identifying pain characteristics after non-pharmacological measures, administering ketoprofen analgesic drugs 1 tab 100mg, identifying sleep activity patterns, identifying sleep-disturbing factors, and identifying drug administration schedules.

Nursing evaluation was obtained after 1x7 hours of nursing action to alleviate acute pain in the patient's palsies, the pain has decreased.

The patient said that the pain had been relieved, the patient said that the pain had been relieved, the patient said that the pain scale was 2, the patient did not grimace, the quake was not severe, the vital signs: blood pressure: 128/94 mmHg, temperature: 36.5°C, pulse: 71x/minute, respiration: 19x/minute, and oxygen saturation: 98%.

## DISCUSSION

According to Potter and Peery (2009), Assessment is a systematic data collection process that aims to determine the patient's current and previous health and functional status, as well as to determine the patient's current and previous response patterns (1). The results of the assessment conducted on Mrs.E found that the patient was performed by cesarean section due to indications of breech location in accordance with the theory of Wiknjosastro (2015) which states that indications of labor can be caused by fetal factors, one of which is the abnormality of the baby's location. The patient's main complaint is pain in the postoperative wound which is felt like throbbing, the pain does not spread anywhere, is felt on a scale of 6 (0-10), and is felt to disappear. This indicates that patient Mrs. E experienced acute pain in accordance with Batara's theory, 2021 which states that postoperative pain is a side effect that must be experienced by patients who have undergone surgery, including cesarean section. Such pain may be caused by adhesions between tissues due to surgery. The pain is almost impossible to eliminate, as the mother will experience pain or disturbance especially when overexerting herself or performing sudden rough movements. Since the patient is conscious, within the first 24 hours pain will be felt in the surgical area. The results of the physical examination performed on Mrs. E obtained the results of Compos Mentis consciousness with GCS (Glasgow Coma Scale) 15, the patient's general condition looked grimacing, blood pressure 113/78 mmHg, pulse 92x/min, respiration: 20x/min, temperature: 36 ° C, weight 60 kg, height 155 cm, BMI 25 in the normal range. Laboratory results conducted on Mrs. E obtained data that there was an increase in leukocytes with the results of 15,160 cells /  $\mu$ L with normal values of 3,800 - 10,600 cells /  $\mu$ L. For other data such as hemoglobin, erythrocytes, hematocrit, and thrombocytes within normal limits in accordance with hospital reference values.

Most of the diagnoses that appear are in accordance with what has been proposed by the 2017 Central Board of Management Indonesian National Nurses Association

Working Group Team. Based on the analysis of the data obtained from the patient, the diagnoses that can be taken are acute pain associated with physical injury agents (postoperative wounds) characterized by patients complaining of pain in postoperative wounds on a scale of 5 (1-10), disturbed sleep patterns associated with postoperative wound pain characterized by patients complaining that the thing that makes it easier to wake up is pain in the operating wound and the risk of infection which is characterized by there is a surgical wound covered with gauze  $\pm$  10 cm. Other diagnoses that should appear such as ineffective breastfeeding, knowledge deficit, and self-care deficit were not found in the patient because there was no supporting data to determine these diagnoses so these diagnoses could not be taken in this case study, besides because the patient is multiparous, the patient said she had no problems when breastfeeding either the first child, the second even now because at the time of treatment, the patient had released colostrum and breast milk even though it was still small a little.

The action plan for the main problem experienced by the patient is in accordance with nursing interventions related to the problem of acute pain according to Standard Nursing Intervention Indonesia 2018 compiled by the Standard Nursing Intervention Indonesia Working Group Team of Central Board of Management Indonesian National Nurses Association with a goal plan of 1 x 7 hours which is expected that acute pain can be resolved with the outcome criteria that the patient does not complain of pain, the patient does not appear to grimace, the pain scale decreases, does not behave protectively, and the pulse frequency improves with the intervention. Identify pain characteristics, monitor vital signs, identify pain scales, teach nonpharmacological techniques of deep breath relaxation techniques, explain the causes, periods, and triggers of pain, also collaborate with the administration of analgesics.

Implementation has been carried out for patients starting from 13 April 2023 to 17 April 2023 to overcome the problems felt by patients, especially acute pain problems which have been planned in accordance with what has been put forward by the SIKI Central Board of Management Indonesian National Nurses Association Working Group at SIKI 2018 which lasted for 5 consecutive days. The patient's condition also improves, as indicated by the pain scale felt by the patient decreasing and the feeling of throbbing is rarely felt. In the implementation, the non-pharmacological technique of deep breathing relaxation was carried out to reduce the pain scale on Post Op Day 2. The result was that the pain scale decreased after the deep breathing relaxation technique was carried out. This non-pharmacological technique was carried out before giving analgesic drugs. The measurement of the pain scale itself was carried out using the NRS (Numeric Rating Scale) because the pain measurement standard used at Al-Ihsan Regional Hospital uses the NRS tool. The decrease in pain scale is influenced by deep breathing relaxation techniques which can release tension, increase self-concentration, make it easier to regulate breathing, increase oxygen in the blood, and provide a sense of calm so that it makes oneself more relaxed and helps to increase feelings of comfort (6).

Collaborative administration of analgesic pharmacological therapy can influence the reduction in the scale of pain experienced by patients. The pharmacological therapy given to Mrs. E included Ketorolac 3x1 1 amp IV and ketoprofen 2x1 tab. The results of this case study are in line with research by Widiatie Wiwiek (2015), which states that there is an influence between deep breathing relaxation techniques on reducing pain intensity in post-section mothers at Unipdu Medikal Hospital Jombang, proven by the Wilcoxon statistical test showing the P value = 0.003: H1 is accepted. The results obtained for Mrs. E were that there was a decrease in pain intensity from moderate pain to mild pain after the non-pharmacological deep breathing relaxation technique was carried out. There has also been an increase in other problems, such as disturbances in sleep patterns from previous patients complaining of insufficient sleep hours due to pain until sleep hours have almost returned to normal because the pain has reduced, also in the problem of risk of infection

where there are no signs of REEDA so the problem is resolved because it does not occur infection in the postoperative wound.

Evaluation of the results carried out on Monday, April 17, 2023, Mrs.E's acute pain problem in this case study acute pain associated with physical injury agents (postoperative wounds) was resolved. Of the four expected outcome criteria in Mrs.E, all can be achieved, namely the patient does not complain of pain, the patient does not grimace, the pain scale decreases from 6 to 2 (0-10), the patient does not behave protectively, the pulse frequency improves.

## CONCLUSION

Based on nursing care provided to Mrs. E P3A2 Post Sectio Caesarea POD 2 with the problem of acute pain who was hospitalized in the postpartum room at AL Ihsan Hospital, West Java Province The results of the assessment conducted on Mrs. E found that the patient complained of pain in the postoperative wound which felt like throbbing, the pain did not spread anywhere, felt on a scale of 6 (0-10), and was felt to arise. Diagnosis enforcement is carried out by the author after analyzing the data on Mrs.E's condition so that the diagnoses that arise are acute pain, sleep pattern disorders, and risk of infection. Nursing interventions in this Scientific Paper the author focuses on the problem of acute pain, namely identifying pain characteristics, monitoring vital signs, identifying pain scales, explaining the causes, periods, and triggers of pain, teaching non-pharmacological techniques, and collaborating with the administration of analgesics, ketorolac 1 amp 2x1 and ketoprofen 2x1 tab. Nursing implementation is carried out in accordance with a predetermined plan, where implementation is carried out for 5 consecutive days starting on April 13, 2023 - April 17, 2023, where the patient is given nursing care 2 days in the hospital and 3 days at home visit. Nursing evaluation in this scientific paper is carried out after nursing implementation is carried out using the SOAP method. The results of the evaluation of acute pain can be resolved with a decreased pain scale, namely on POD 5 pain scale 2, pulse frequency improved 71x/minute so that the intervention was stopped as well as other problems, namely disturbed sleep patterns and risk of infection, all can be resolved and the intervention is stopped.

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