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A COMBINATION OF ENDORPHIN MASSAGE AND LAVENDER AROMATHERAPY CAN REDUCE PAIN LEVELS IN POSTPARTUM MOTHERS WITH CEPHALOPELVIC DISPROPORTION (CPD) IN HOSPITALS

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ABSTRACT

Postpartum due to indication of Cephalopelvic Disproportion is an abnormal condition where the size of the mother's pelvis is not proportional to the size of the fetus. Cephalopelvic disproportion is characterized by the fetal head not entering the upper pelvic inlet at 40 weeks of gestation, so a cesarean section must be performed. After a cesarean section, there is severed tissue, which causes pain, and to reduce the pain, a combination of endorphin massage therapy and lavender aromatherapy is performed. The purpose of this scientific paper is to provide an overview of the effect of a combination of endorphin massage therapy and lavender aromatherapy on reducing pain with post-cesarean section indication of cephalopelvic disproportion (CPD). The research method of this paper uses a descriptive case study approach on mothers post-cesarean section. The study was conducted on April 29 - May 1, 2025, at the hospital. The results of the study obtained patient assessment data saying, "Pain: the patient appeared to be grimacing with a diagnosis of acute pain." Actions taken to overcome pain problems include endorphin massage therapy and lavender aromatherapy. The results of the evaluation after being given endorphin massage and lavender aromatherapy for 3 days for 15-20 minutes showed a decrease in pain from a scale of 4 to a scale of 1 when assessed using digital pain mapping (pain quilt). Recommendations for non-pharmacological therapy with endorphin massage and lavender aromatherapy are effective in reducing pain so that it can be applied to post-cesarean section patients.

Keywords: "Cephalopelvic Disproportion (CPD)"; "Endorphin Massage"; "Lavender Aromatherapy"; "Cesarean Section"

INTRODUCTION

Cephalopelvic Disproportion (CPD) is one of the problems that pregnant women can face, which can result in the mother having to undergo a cesarean section procedure to avoid the risks that may arise. The World Health Organization (WHO) said that the rate of cesarean section deliveries is currently increasing, especially in less developed countries. In Indonesia itself, the cesarean section delivery rate exceeds the WHO standard of 5–15% (Firdaus, 2022). According to the results of Indonesian health demographic data conducted by the Central Statistics Agency in 2017, 17% of births in health facilities in Indonesia take place by cesarean section (Ministry of Health, 2017; cited in Armayanti et al., 2024). The 2023 Indonesian Health Survey (SKI), which integrates Riskesdas and SSGI, recorded the prevalence of cesarean sections (SC) at 25.9%, an increase from 17.6% in the 2018 SKI. Data on patients who underwent caesarean section at Hermina Jatinegara Hospital in the last four months from January-April 2025 shows that the number of cases of Cesarean section reaches 350 patients, and for cases of Cephalopelvic Disproportion (CPD) there are 59 patients with a percentage of 0.16%.

Women undergoing Sectio Caesarea surgery may experience problems such as pain caused by lesions in the tissues of the abdominal or uterine walls, leading to discomfort (Wahyuningsih, S., et al., 2022). The level of pain experienced by patients can be measured using a pain scale, either by asking the patient directly or with the help of modern technology based on Android applications, such as Pain QuILT. Patients who experience pain will get supervision or efforts related to the pain, which can be done by administering medication to reduce pain or by undergoing therapy such as endorphin massage combined with lavender aromatherapy. Research objectives To find out the effect of endorphin massage therapy in combination with *lavender*

aromatherapy can reduce pain levels in Mrs. A with *postpartum* cesarean section on the indication of *Cephalopelvic Disproportion* (CPD) in the hospital

MATERIALS AND METHODS

This study uses a qualitative method with a case study approach, aiming to examine effectiveness of the the combination of endorphin massage therapy and lavender aromatherapy on reducing pain with post-cesarean section indication of cephalopelvic disproportion (CPD) in hospitals. The research location is in the Kamala Room on the 3rd floor of Hermina Jatinegara Hospital on May, 2025. Data collection was carried out through direct interviews with patients and families, observation of the patient's condition, physical examination of the patient, and data collection from medical records. HINAI WEB Hermina https://simrs.herminahospitals.com/live/login.html. This research has also received permission from Hermina Hospital with No. 308/IKH/YPH/III/2025.

RESULTS AND DISCUSSION

The results of the study at the study stage obtained data on patients complaining of pain when moving, pain such as slicing and throbbing, and pain felt in the abdominal area or in the wound of cesarean section surgery with a scale of 4-5 with an NRS scale and a scale of 5 with *a digital pain mapping application (paint quilt*). The objective data found by the author on patients were that the patient appeared to grimace and complain of pain and appeared to have a wound in the abdomen or a scar from a cesarean section wrapped in bandages. Complaints felt in patients, in line with several studies, namely research (Fichria, et al., 2022), said that in the study of postpartum PQRST maternal pain, it was found that pain was felt severely when moving, pain such as slicing and throbbing. Pain is felt in the lower abdomen post SC and spreads to the waist area; the pain scale is 6 NRS, and pain is felt continuously with a duration of ± 5 minutes.

The main diagnosis taken in the respondents was acute pain related to the presence of *post-sectional* wounds with subjective data of patients saying they felt pain when moving, pain such as slicing and throbbing, pain felt in the abdominal area of cesarean section surgery scars, and pain felt on a scale of 4-5 with an NRS scale and a scale of 3 with the application of a pain quilt and disappearing arising with objective data. The patient appeared to grimace and complained of pain. The main diagnosis taken in the respondents was acute pain related to the presence of post-sectional wounds with subjective data of patients saying they felt pain when moving, pain such as slicing and throbbing, pain felt in the abdominal area of cesarean section surgery scars, and pain felt on a scale of 4-5 with an NRS scale and a scale of 3 with the application of a pain quilt and disappearing arising with objective data. The patient appeared to grimace and complained of pain.In line with the research (Damyanti, 2024), the first priority nursing diagnosis in post-sectio caesarean patients with the CPD indication is acute pain related to the agent of physical injury (sectio caesarean surgery) with client complaints of post-sectio caesarean pain in the abdominal area and pain worsening if moving and provocative objective complaints when moving.Qualities such as sliced, pain scale 6, and lost timing arise, and clients are seen grimacing and holding pain. Acute pain is a pattern of pain felt in post-cesarean section mothers as a result of post-operative wounds that can be lowered.

The next intervention is a combination of endorphin massage with lavender aromatherapy. This gentle touch and massage technique is very important for postpartum mothers to help provide a sense of calm and comfort, as well as improve the state of relaxation by triggering a feeling of comfort through the surface of the skin. This massage is done with a light touch of the fingertips, starting with the back then moving to the arms and all over the body (Sari, et al., 2024). Lavender is one type of aromatherapy commonly used in the manufacture of analgesic essential oils that contain 8% terpenes and 6% ketones (Maharani, et al., 2024).

The implementation carried out by the author in the diagnosis of acute pain is to monitor and identify the location, characteristics, duration, frequency, quality, and intensity of pain, obtaining the following results: P: post cesarean section, Q: sliced and pulsed, R: lower abdomen, S: 4, T: loss of embossment, factors that aggravate the patient's pain said during mobilization, teaching deep breathing techniques, and endorphin massage With lavender aromatherapy to reduce pain, with the response, the patient said pain was slightly reduced, collaborating in the administration of the analgesic Katorolac 3x1 (30mg) IV on the first, second, and third days of mefenamic acid 3x1 tab (500mg).

In patients with acute pain, after three days of treatment with a combination of pharmacological and non-pharmacological therapies, the results achieved were that the pain scale in patients after being given endorphin massage experienced a decrease in pain quality. The administration of endorphin massage can affect the quality of pain in *post-cesarean section*patients. Endorphin massage is given for 3 consecutive days at *Post Sectio Caesarea* for 6-8 hours with a massage frequency of 15 to 20 minutes (Lestari, et al., 2024). Research by Lestari, et al., (2024) stated that the final results showed that the pain scale in both respondents before and after endorphin massage was reduced by 2 scores.

CONCLUSION

The results of the study at the nursing assessment stage showed no difference between the theory and the data obtained directly from the patient. The data shows that in accordance with the studies and theories obtained, it is concluded that post-SC pain is caused by an incision or tearing of the abdominal wall and uterine wall tissue, which can cause a change in continuity so that the mother feels pain due to surgery. Data obtained directly from patients. Data showed that patients rated pain in the scar surgery on a scale of 4-5 with the NRS scale and a scale of 3 with the application of the pain quilt. Pain, such as slicing and throbbing, increased when doing movements.

Nursing diagnosis in Mrs. A post-cesarean section on the indication of cephalopelvic disproportion (CPD), which is prioritized for Intervention is for acute pain related to the presence of *postoperative* cesarean sectional wounds, characterized by the patient saying they have pain when moving, pain such as slices and throbbing in the abdomen, surgical scars on a scale of 4-5 with an NRS scale and a scale of 3 with the application of a pain quilt, lost embossment, and the patient looking grimacing and restless. The diagnosis of acute pain is in accordance with the patient's condition and is a priority in nursing management.

The nursing action that the author focuses on in this intervention is the administration of a combination therapy of endorphin massage and lavender aromatherapy, because based on the results of studies and supported by various studies, these two techniques have been proven to be effective in lowering the pain scale. This intervention is expected to help overcome the acute pain experienced by postpartum mothers with cesarean sections due to incisions in the tissue tears of the abdominal wall and uterine wall, which can cause changes in continuity so that the mother feels pain due to surgery.

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REFERENCES

Armayanti, L. Y., Nataningrat, A. A. I., & Sumiari Tangkas, N. M. K. (2024). Hubungan Mobilisasi Dini Terhadap Penyembuhan Luka Sectio Caesarea (SC) Di Ruang Nifas Rumah Sakit Umum Daerah Klungkung. *Jurnal Riset Kesehatan Nasional*, *8*(1), 69–74. https://doi.org/10.37294/jrkn.v8i1.562

Damyanti, S. R. (2024). Asuhan Keperawatan Pada Pasien Ibu Nifas Post Sectio Caesarea Dengan Masalah Keperawatan Nyeri Akut Di RSUD dr. Kanujoso Djatiwibowo Balikpapan. In *Politeknik Kesehatan Kementerian Kesehatan* (Vol. 15, Issue 1).

Danis Putri Lestari, Anjar Nurrohmah, & Neny Utami. (2024). Penerapan Pijat Endorphin Terhadap Tingkat Nyeri Pada Ibu Post Partum Dengan Riwayat Persalinan Tindakan Sectio Caesarea di Ruang Cempaka RSUD dr Soehadi Prijonegoro Sragen. *Jurnal Siti Rufaidah*, *2*(3), 13–27. https://doi.org/10.57214/jasira.v2i3.87

Fichria, F., Kiftia, M., Halifah, E., Program Studi Profesi Ners, M., Keperawatan Universitas Syiah Kuala Banda Aceh, F., & Keilmuan Keperawatan Maternitas, B. (2022). Asuhan Keperawatan Ibu Post Sectio Caesarea Dengan Cephalopelvic Disproportion: Suatu Studi Kasus. *Jim*, *I*, 1–7.

Firdaus, R. (2022). The Effect of Early Mobilization Implementation on the Healing of Sectio Caesarea Operation Wounds at Harapan Insan Sendawar Hospital. *Formosa Journal of Science and Technology*, *1(8)*, 1165–1184.

Maharani, E. D. S., & Rejo, S. I. (2024). Pengaruh Pemberian Aromaterapi Lavender Essential Oil Untuk Menurunkan Skala Nyeri Post Sectio Caesarea. *Journal of Language and Health*, *5*(2), 561–570.

Sari, P. K., Satriwati, A. C., Aulia, Hidayati, N. W., & Sarti, S. (2024). Pengaruh Kombinasi Pijat Endorphin dan Aromatherapi Lavender Terhadap Nyeri Luka Post Sectio Caesaria Pada Ibu Primipara di RSUD Pandan Arang Boyolali. *Journal of Innovation Research and Knowledge*, *Vol.3*, *No.*(1), 37–48.

Wahyuningsih, S., Hayati, N., Dwi Fibriansari, R., Anisa, S., Suprapti, E., & H. (2022). Exploration Of Mother Post Sectio Caesar With Acute Pain: Case Report. *Indonesian Journal of Health Care Management, 1(2)*. https://doi.org/https://doi.org/10.36053/IJOHCM.V1I2.10.G2 8