

## EFFECTIVENESS OF EFFLEURAGE MASSAGE AND LAVENDER AROMATHERAPY ON ADOLESCENTS WITH ACUTE PRIMARY DYSMENORRHEA PAIN IN PRIGI VILLAGE, PADAMARA DISTRICT

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### Abstract

*Background: Dysmenorrhea during menstruation is a condition where the pain in the abdomen starts from the lower abdomen which sometimes the pain can extend to the back, lower back and thighs that can carry out routine activities as usual and not a few can interfere with daily activities . Pain in dysmenorrhea can be treated with various alternatives, both pharmacologically and non-pharmacologically. Pharmacologically, it can be treated with analgesic drugs. One natural method that is considered effective in reducing menstrual pain is effleurage massage and lavender aromatherapy. Objective: This case study aims to describe the application of effleurage massage and lavender aromatherapy in adolescents with acute pain dysmenorrhea in Prigi Village, Padamara District. Methods: Case study conducted by observation for 3x meetings and intervention of giving Massage Effleurage and lavender aromatherapy for 3 days on November 6-8, 2024. Results: The results of the case study of the application of giving effleurage massage and lavender aromatherapy on the first day the patient was still in pain by showing a decrease in the pain scale on the second and third days. On the first day, the pain level was on scale 6 (severe pain), on the second day the pain level decreased to scale 4 (moderate pain) and on the third day the pain scale dropped to scale 3 (mild pain). Conclusion: Massage Effleurage and lavender aromatherapy in adolescents with dysmenorrhea in Prigi Village are effective in reducing pain applied for 3x24 hours showing significant results from a pain scale of 6 (severe pain) to a pain scale of 3 (mild pain).*

**Keywords: Effleurage Massage, Lavender Aromatherapy, Dysmenorrhea**

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### INTRODUCTION

Adolescence is a period of change from childhood to adulthood, the changes that occur include biological, psychological and social changes. One of them will experience puberty and is marked by the first menstruation (menarche) in adolescent girls. (Hikmah et al., 2018). Menstruation is a physiological thing related to hormonal work which indicates that a woman's reproductive organs have matured. (Ulfah et al., 2020). Primary Dysmenorrhea is a condition where the pain in the stomach starts from the lower abdomen, which sometimes spreads to the back, lower back and thighs, which can interfere with routine activities as usual and not a few can interfere with daily activities. (Ratnasari et al., 2018).

According to the World Health Organization (WHO), the incidence of menstrual pain is quite high in the world. The average occurrence of menstrual pain in young women is between 16.8 -81%. On average in European countries, menstrual pain occurs in 45-97% of women. With the lowest prevalence in Bulgaria (8.8%) and the highest reaching 94% in Finland. The highest menstrual pain is often found in adolescent girls, around 20-90%. Around 15% of adolescents are reported to experience severe menstrual pain. In the United States, menstrual pain is recognized as the most common cause of absence from school experienced by adolescent girls. In addition, a survey was also conducted on 113 American women and stated the prevalence of 29-44%, most at the age of 18-45 years. In Indonesia itself, the incidence of menstrual pain in adolescent girls is 64.25% (Wati & Ardini, 2021). Pain is an unpleasant sensory and emotional experience caused by tissue damage that causes discomfort. (Maula & Ulfah, 2023). Pain in Primary Dysmenorrhea can be treated with various alternatives, both pharmacologically and non-pharmacologically. Pharmacologically, it can be treated with analgesic drugs. One natural method that is considered effective in reducing menstrual pain is

Effleurage Massage and lavender aromatherapy. Effleurage Massage is an abdominal massage with a massage technique in the form of soft, slow and long or continuous strokes. Effleurage aims to increase blood circulation, apply pressure, and warm the abdominal muscles and increase physical and mental relaxation. Effleurage is a safe, easy massage technique, does not require a lot of equipment, does not cost money, and has no side effects (Veronica & Oliana, 2022).

Aromatherapy is a treatment using fragrances. Aromatherapy in holistic healing to improve health and comfort. Aromatherapy is an aromatic essence distilled from plants, flowers and seeds. Aromatherapy also has the power to heal and improve health. In general, aromatherapy has a unique healing power and antiseptic properties. The uses of aromatherapy are generally antiviral, anti-inflammatory, relieve pain, antidepressant and make you relax (Hutasoit, 2011) Lavender aromatherapy is one of the popular therapeutic oils used as an antiseptic and wound healing. Has a relaxing effect on discomfort or pain. Lavender oil is used to treat digestive problems, menstrual disorders and pain in parts of the body (Nisa & Hidayani, 2023).

From the background above, the author is interested in implementing Massage Effleurage and giving lavender aromatherapy to adolescents with Dysmenorrhea because it has been proven to be beneficial in reducing pain in various previous studies. The title raised by the author is "Effectiveness of Effleurage Massage and Lavender Aromatherapy on Adolescents with Acute Dysmenorrhea Pain in Prigi Village, Padamara District".

## **METHOD**

This study is a descriptive case study in the form of a nursing process approach consisting of assessment, nursing diagnosis, planning, implementation and evaluation, with a focus on the implementation of acute pain nursing care in adolescents with Dysmenorrhea with Effleurage Massage and lavender aromatherapy. The subjects of the case study were female adolescents in Prigi Village. Case studies are conducted by examining a problem through a case consisting of a single unit meaning one person. Case studies are a type of approach in research that focuses only on one case that is carried out intensively, in depth, in detail and comprehensively, so this study was conducted to determine the right nursing care for acute pain in adolescents with Dysmenorrhea by applying Massage Effleurage and giving lavender aromatherapy for 3x24 hours. Numeric Rating Scale (NRS) is a tool used to measure pain, and the application of Massage Effleurage and giving aromatherapy is based on Standard Operating Procedure (SOP). Data collection on the level of pain experienced was carried out before and after being given Massage Effleurage therapy and giving lavender aromatherapy. Data collected from case study management are presented and evaluated to determine whether giving Massage Effleurage and giving lavender aromatherapy to adolescents with Dysmenorrhea in Prigi Village is useful in reducing pain levels.

## **RESULTS AND DISCUSSION**

In the data collection process, it was obtained through the results of the assessment that the respondent An. S is 13 years old and a student. An. S complained of pain during menstruation and did not know how to handle it, P: the pain increases when moving and doing activities, and the pain decreases when resting Q: pain like being cut, R: pain in the abdomen radiating to the waist, S: pain scale 6, T: continuous. The respondent appeared to be grimacing, blood pressure 128/80 mmHg, pulse 98x/minute, respiration 23x/minute, and temperature 36.40C. The diagnosis in the above case was determined as acute pain due to a physical injuring agent (surgical procedure) (SDKI Working Group Team, DPP PPNI, 2017). Pain management is a nursing intervention used in this case (I.08238). To effectively manage pain, it is necessary to identify the location, characteristics, duration, frequency, quality, and intensity of pain, establish a pain scale; identify factors that aggravate and alleviate pain; and provide non-pharmacological techniques to reduce pain, such as Effleurage Massage and

aromatherapy to reduce pain in case study respondents.(PPNI DPP SIKI Working Group Team, 2018).

Implementation was carried out from 6 to 8 November 2024 with the nursing planning or intervention that had been prepared. The application of Massage Effleurage and the administration of lavender aromatherapy on the first day the patient was still in pain, showing a decrease in the pain scale on the second and third days. On the first day, the pain level was on a scale of 6 (severe pain), on the second day the pain level decreased to a scale of 4 (moderate pain) and on the third day the pain scale decreased to a scale of 3 (mild pain). Below is a table of pain scale evaluation before and after the administration of Massage Effleurage and the administration of lavender aromatherapy for 3x24 hours.

**Table 1. Pain Intensity Before and After Effleurage Massage and Lavender Aromatherapy**

Date	Pre	Post
November 6, 2024	Scale 6	Scale 5
November 7, 2024	Scale 5	Scale 4
November 8, 2024	Scale 4	Scale 3

There are 3 categories of pain division, namely scale 0 no pain, scale 1-3 mild pain, scale 4-6 moderate scale, scale 7-9 severe scale, scale 10 unbearable pain.(Shiddiqiyah & Tin Utami, 2023). Acute pain from actual or potential tissue damage can cause unpleasant sensory and emotional experiences ranging in intensity from mild to severe and lasting less than 3 months.(SDKI Working Group Team, DPP PPNI, 2017).

This case study of the pain felt by adolescents with Dysmenorrhea is acute pain where the patient complains of severe pain with a scale of 6. The results of this comparison found that after the mother was given Effleurage Massage and lavender aromatherapy showed a decrease in the pain scale. The Effleurage Massage technique is a stimulation of the abdominal skin with both palms rubbing the stomach and simultaneously moving in a circle towards the center of the symphysis or can also use one palm with a circular motion or one direction clockwise(Yugianti et al., 2022).

The same research results were also conducted bySari & Hamranani (2019), about the effect of massage effleurage on reducing menstrual pain in adolescent girls who have a final conclusion with the results of the analysis that it is effective in reducing menstrual pain with  $P_v = 0.00 < \alpha = 0.05$ . This is because, Massage Effleurage can stimulate skin fibers that will make uterine contractions comfortable so that blood flow to the uterus is smoother and blocks pain impulses carried to the cerebral cortex so that pain can be reduced. Likewise, the presence of massage that has a distraction effect can also increase the formation of endorphins in the descending control system. Massage can make patients more comfortable because massage relaxes muscles. Massage is a safe, easy technique, does not require a lot of equipment, and does not have risky side effects(Lestari & Apriyani, 2020).

Reducing Primary Dysmenorrhea pain in women with the use of lavender aromatherapy. This means that lavender aromatherapy is one of the therapies that can be given to women who experience menstrual pain or Primary Dysmenorrhea. Lavender aromatherapy is effective in reducing Primary Dysmenorrhea pain felt by women both on the first day of menstruation and on the second day of menstruation. Giving aromatherapy applications to the body is an effort to reduce symptoms of acute and chronic pain. In lavender aromatherapy (*Lavendula Augustfolia*) there are main ingredients, namely linalyl acetate, and linalool, which function where linalyl acetate can loosen or relax the nervous muscle system that is in a tense condition, while linalool has benefits for relaxation and sedative, so that it can provide benefits to reduce the intensity of menstrual pain(Rayatin et al., 2023).

The purpose of lavender aromatherapy is to reduce the intensity of pain. Aromatherapy is a method of relaxation that uses essential oils in its implementation is useful for improving a person's physical, emotional and spiritual health.(Mokoginta et al., 2021). Lavender aromatherapy has been proven to help reduce the intensity of headaches where the headache score after being given lavender aromatherapy is lower than before being given lavender aromatherapy. This happens because lavender flower aromatherapy (*Lavandula angustifolia*) contains linoleum which functions as a sedative effect so that when someone inhales lavender flower aromatherapy, the aroma released will stimulate the

olfactory nerve cilia receptors located in the olfactory epithelium to transmit the aroma to the olfactory bulb through the olfactory nerve. The olfactory bulb is related to the limbic system. The limbic system receives all information from the auditory system, visual system, and olfactory system. The limbic is a ring-shaped inner structure of the brain located under the cerebral cortex. The most important parts of the limbic system related to aroma are the amygdala and hippocampus. The amygdala is the center of emotion and the hippocampus is related to memory (including the aroma produced by lavender flowers) then through the hypothalamus as a regulator, the aroma will be carried into a small but significant part of the brain, namely the raphe nucleus. The effect of stimulating the raphe nucleus is the release of serotonin, which is a neurotransmitter that regulates mood. Serotonin released by the brain stem and dorsal horn functions to inhibit pain transmission, thus there will be a response to reducing pain. (Rahmatika et al., 2022).

## CONCLUSION

Based on the case study that has been conducted, namely the application, it can be concluded that the provision of Effleurage Massage therapy and the provision of lavender aromatherapy to adolescents with Dysmenorrhea in Prigi Village resulted in a decrease in pain applied for 3x24 hours showing significant results from a pain scale of 6 (severe pain) to a pain scale of 3 (mild pain).

## REFERENCES

- Hikmah, N., Amelia, C. R., & Ariani, D. (2018). Pengaruh Pemberian Masase Effleurage Menggunakan Minyak Aromaterapi Mawar terhadap Penurunan Intensitas Nyeri Dismenore Primer pada Remaja Putri di SMK Negeri 2 Malang Jurusan Keperawatan. *Journal Of Issues In Midwifery*, 2(2), 34–45. <https://doi.org/10.21776/ub.joim.2018.002.02.4>
- Lestari, S., & Apriyani, N. (2020). Pengaruh *Massage Effleurage* Terhadap Perubahan Tingkat Nyeri Pada Pasien Kala 1 Fase Aktif Persalinan. *Jurnal Kesehatan*, 10(1), 1246–1252. <https://doi.org/10.38165/jk.v10i1.3>
- Maula, L. H., & Ulfah, M. (2023). Implementasi Pemberian Kompres Hangat Daun Kelor terhadap Penurunan Nyeri pada Lansia dengan Gout Arthritis di Desa Dawuhan, Padamara, Purbalingga. *Jurnal Inovasi Penelitian*, 4(1), 37–41.
- Mokoginta, F., Jama, F., & Padhila, N. I. (2021). Lilin Aromaterapi Lavender Dapat Menurunkan Tingkat Dismenore Primer Primer. *Window of Nursing Journal*, 1(2), 113–122. <https://doi.org/10.33096/won.v1i2.309>
- Nisa, K., & Hidayani, H. (2023). Pengaruh Pemberian Aromaterapi Lavender Terhadap Tingkat Kecemasan Pada Akseptor Kb Implan Di Puskesmas Haurpanggung Kabupaten Garut Tahun 2023. *SENTRI: Jurnal Riset Ilmiah*, 2(10), 3970–3981. <https://doi.org/10.55681/sentri.v2i10.1620>
- Rahmatika, D., Utami, I. T., Purwono, J., Dharma, A. K., & Metro, W. (2022). Penerapan Aromaterapi Lavender Terhadap Pasien Nyeri Kepala Di Ruang Saraf Rsud Jend. Ahmad Yani Metro Application of Lavender Aromaterapi Towards Patients of Head Pain in the Nerve Room of Regional Public Hospital General Ahmad Yani Metro. *Jurnal Cendikia Muda*, 2(1).
- Ratnasari, N. N., Pertiwi, S., & Khairiyah. (2018). Pengaruh Pelvic Rocking Exercise Terhadap Nyeri Primary Dysmenorhea pada Siswi Kelas VIII. *Midwife Journal*, 4(2), 48–55. <https://www.neliti.com/publications/267041/pengaruh-pelvic-rocking-exercise-terhadap-nyeri-primary-dysmenorhea-pada-siswi-k>
- Rayatin, L., Priyono, T. F., Studi, P., Ners, P., Kesehatan, F. I., Tangerang, U. M., Ners, M. P., Kesehatan, F. I., & Tangerang, U. M. (2023). Pengaruh Aromaterapi Lavender Terhadap Penurunan Nyeri. *Jurnal Kesehatan Masa Depan*, 2(1), 45–64.
- Sari, D. P., & Hamranani, S. S. T. (2019). Pengaruh Terapi *Massage Effleurage* terhadap Penurunan

- Nyeri Haid Pada Remaja Putri di Klaten. *MOTORIK Jurnal Ilmu Kesehatan*, 14(2), 123–126.
- Shiddiqiyah, N., & Tin Utami. (2023). Penerapan Aromaterapi Lavender Terhadap Penurunan Nyeri Pada Pasien Post Sectio Caesarea Di RSUD Kardinah Tegal. *Jurnal Inovasi Riset Ilmu Kesehatan*, 1(4), 60–65. <https://doi.org/10.55606/detector.v1i4.2504>
- Tim Pokja SDKI DPP PPNI. (2017). *Standar Diagnosis Keperawatan Indonesia*. Dewan Pengurus Pusat.
- Tim Pokja SIKI DPP PPNI. (2018). *Standar Intervensi Keperawatan Indonesia (SIKI), Edisi 1*. Dewan Pengurus Pusat PPNI: Jakarta.
- Ulfah, M., Dewi, K., & Semarang, U. M. (2020). Hubungan Tingkat Kecemasan dan Psikosomatis Masa Haid di LP Klas 2A Wanita Semarang. *Jurnal Nasional Unimus*, 576, 801–808.
- Veronica, S. Y., & Oliana, F. (2022). Pengaruh *Massage Effleurage* Terhadap Penurunan Nyeri Dismenore Primer Primer pada Remaja Putri di IAI Agus Salim Metro Lampung. *Journal of Current Health Sciences*, 2(1), 19–24. <https://doi.org/10.47679/jchs.202232>
- Wati, Y. S., & Ardini, Y. D. (2021). Efektivitas Pemberian Aroma Terapi Lavender dan *Massage Effleurage* Terhadap Penurunan Nyeri Menstruasi Pada Remaja Putri Di Sman 10 Pekanbaru. *JOMIS (Journal of Midwifery Science)*, 5(1), 42–51. <https://doi.org/10.36341/jomis.v5i1.1445>
- Yugianti, R. R., Nurdianti, D., & Novayanti, N. (2022). Efektivitas *Massage Effleurage* Dengan Minyak Lavender Untuk Menurunkan Nyeri Dismenore Primer Primer. *Jurnal BIMTAS: Jurnal Kebidanan Umtas*, 6(1), 10–22. <https://doi.org/10.35568/bimtas.v6i1.2432>