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Systematic Review: The Effect of Massage Effleurage on Dysmenorrhea



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Abstract

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Introduction: In Indonesia, the incidence of dysmenorrhea is 64.25% consisting of primary dysmenorrhea amounted to 54.89% and secondary dysmenorrhea of 9.36%. Some women experienced menstrual pain or cramps, also known as dysmenorrhea. The purpose of this research was to find out the effect of abdominal massage effleurage on decreasing the pain scale of primary dysmenorrhea. **Method:** Systematic review using the database: Google Scholar. The search results that meet the criteria were then analyzed for articles. **Result:** Primary dysmenorrhea pain could be relieved by massage techniques such as abdominal effleurage massage. **Conclusion:** To deal with dysmenorrhea pain, it is advisable for young women not to consume it immediately pharmacological drugs but using massage therapy such as massage effleurage abdomen.

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INTRODUCTION

One of the most common disorders during menstruation is dysmenorrhea. Dysmenorrhea is pain that is felt in the lower abdomen and occurs before, during or after menstruation. Dysmenorrhea is divided into two based on the presence or absence of accompanying abnormalities, namely primary dysmenorrhea, namely pain that occurs during menstruation due to myometrial contraction due to prostaglandin production without any abnormalities in the pelvis and secondary dysmenorrhea, namely pain that is felt with abnormalities in the pelvis (Bobak and Lowdermilk 2005; Kingston 2009; Sholihah and Azizah 2020).

In Indonesia, the incidence of dysmenorrhea is 64.25% consisting of primary dysmenorrhea amounted to 54.89% and secondary dysmenorrhea of 9.36% (Jama and Azis 2020). Based on data, it shows that primary dysmenorrhea is experienced by 60-75% of young women. And three quarters of these had dysmenorrhea with mild or moderate intensity. Meanwhile, the other quarter experienced dysmenorrhea with severe levels and sometimes rendered the sufferer powerless to endure the pain (Umami, Lutfiasari, and Pradian 2016).

Pain that is felt during menstruation often causes discomfort to a woman so that it can result in her being unable to carry out her daily activities (Reeder and Martin 2011). To suppress pain, women simply do compresses warm, regular exercise, and adequate rest. If menstrual pain is felt up interfere with daily activities, usually given non-steroidal anti-inflammatory drugs. (Andari, Fatsiwi Nunik; Amin, M; Purnamasari 2018; Jama and Azis 2020).

There are several ways to deal with dysmenorrhea pain, with adequate rest, regular exercise (especially walking), massage, yoga and warm compress on the stomach area. Pain can also be treated with various alternatives, either pharmacological and non-pharmacological. Pharmacologically can be overcome with analgesic drugs, while non pharmacologically it can be overcome with anticipatory guidance, heat and cold compress, transcutaneous electrical nerve stimulation (TENS), distraction, relaxation, guided imagination, hypnosis, acupuncture, biological feedback, and massage effleurage. Massage effleurage is one of non-pharmacological method that is considered effective in reducing pain (Andanawarih, Jannah, and Artanti 2020; Andari, Fatsiwi Nunik; Amin, M; Purnamasari 2018; Andria,

Sudarti, and Retnaningsih 2016; Jama and Azis 2020)

One method that can be used to reduce dysmenorrhea pain is effleurage massage. Effleurage massage is the act of pressing by hand on the soft tissues of the body without causes displacement or changes in joint position. Movement in doing effleurage massage include placing both palms on the stomach and simultaneously moved in a circular direction center to the symphysis or can also use one palm with a circular motion or one direction. With effleurage massage, the hypoxia in the tissue will decrease so that the oxygen level in the tissue increases which causes pain to decrease. In addition, effleurage massage can increase the release of endorphins so that the pain threshold increases (Alviana 2015; Andanawarih, Jannah, and Artanti 2020; Apay et al. 2012; Bobak and Lowdermilk 2005; Chayati and Na'mah 2019; Hikmah, Amelia, and Ariani 2018; Murtiningsih and Andani 2018).

The purpose of this research is to find out effect of abdominal massage effleurage on decreasing the pain scale of primary dysmenorrhea.

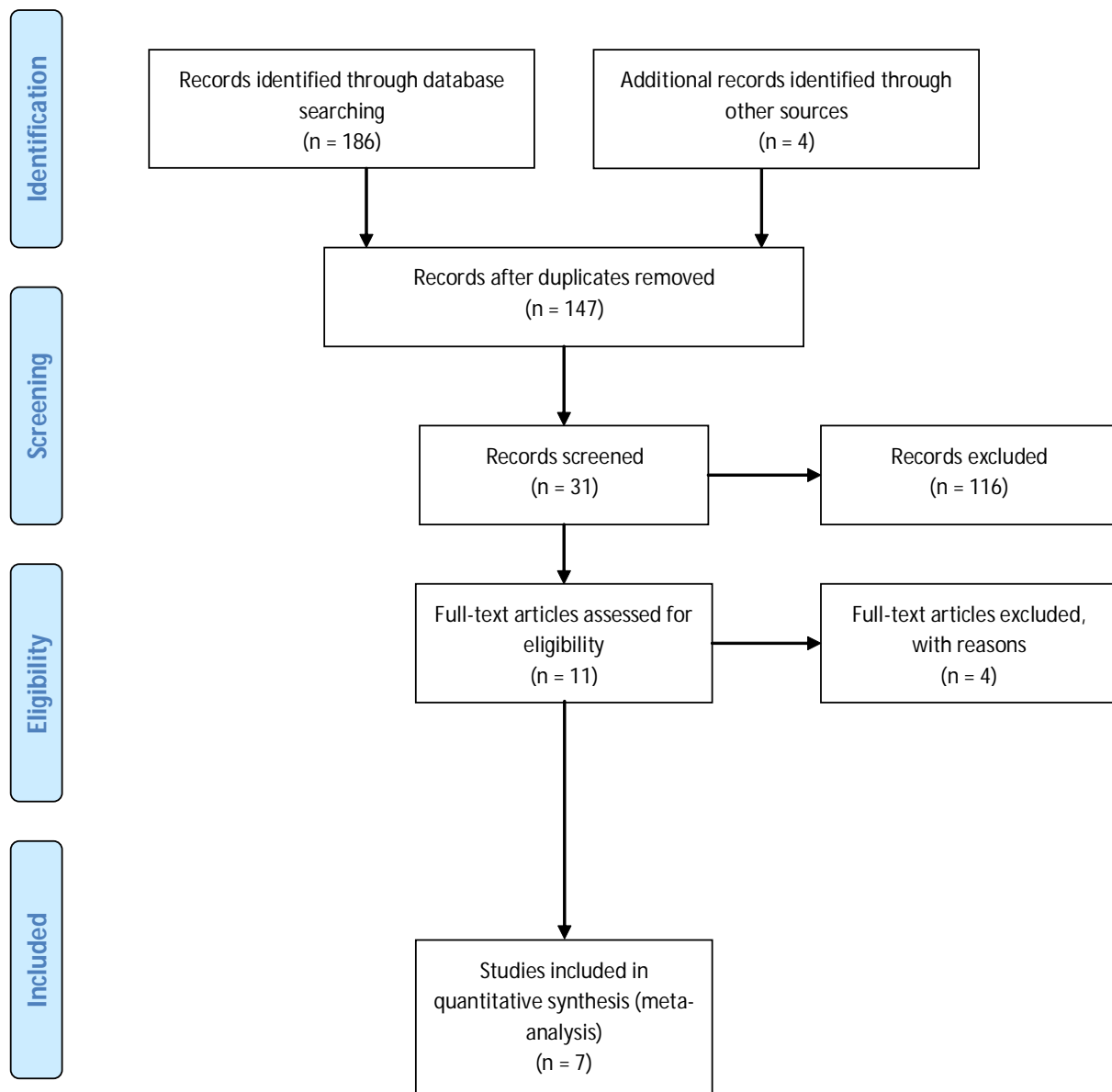
METHODS

The research method was systematic review, used eight stages, namely determining questions, determining inclusion and exclusion criteria, literature search, article selection, perform critical appraisal, perform data extraction, data synthesis and map the results findings. The sources of the research derived from the literature through the internet in the form of research results obtained about massage effleurage against dysmenorrhea. The article inclusion criteria used: 1) An article that describes the Effect of Massage Effleurage on Dysmenorrhea. 2) Published articles have complete sections. 3) Published in 2016-2020. The exclusion criteria for articles included: Incomplete article composition. The search was carried out using the Google Scholar database using keywords: "massage, effleurage, dysmenorrhea". The articles that appear are then sorted so that no articles with the same title are found. Then the articles were sorted based on the inclusion and exclusion criteria that had been determined. Articles that include abstracts only will be eliminated. So that we get the articles to be analyzed. The articles that have been obtained are then extracted. Extraction of articles is based on the author of the article, the year the article was

published, the number of samples used, the measuring instrument used, the results of the research conducted, and the article database. After getting the article that was reviewed, the writer made a critical appraisal and stage the end is charting the data. Filtering and selection of articles using PRISMA Flowchart.

Search results using the keywords “massage, effleurage, dysmenorrhea” use the electronic

Google Scholar database. Search results using these three keywords resulted in 190 articles. Then filtering the articles with inclusion and exclusion criteria was obtained 31 articles. Selection of the next article by eliminating article duplication with the result of 11 articles. Subsequently, article elimination was carried out based on a complete arrangement of 7 articles.



Picture 1 Prisma Flow Diagram

RESULT

Researcher	Year	N	Result
Fatma Jama, Asna Azis	2020	16	The results showed the value of $\rho = 0.000$, where the value of ρ is smaller than $\alpha = 0.05$, then H_a is accepted and H_0 is rejected. So, it can be concluded that there are differences in the results before and after giving the abdominal effleurage massage so that there is effect of abdominal effleurage massage with dysmenorrhea pain scale.
Nurul Hikmah, Coryna Rizky Amelia, Dewi Ariani	2018	24	The most effective action in reducing the intensity of dysmenorrhea pain is the effleurage massage using rose aromatherapy oil for 15 minutes based on the Two Way Anova test mean value of 3.83 and the significance value for the time variable is 0.015 (significant), the variable type of oil is 0.000 (significant) and the significance figure between the time variable and type of oil is 0.154 (not significant). From the results of this study, it is advisable for young women to apply this method when experiencing dysmenorrhea because it is easy to do so that these teenagers can still carry out their daily activities well.
Afriza Umami, Dessy Lutfiasari, Galuh Pradian Y	2018	32	The results showed the ρ value for effleurage technique 0,000 and to warm compresses 0,001, which means ρ value < 0.005 so that it can be concluded there is a difference between before and after treatment. While Mann Whitney test results Y2-Y4 show ρ value: 0,296 which means ρ value $> 0,005$ so that it can conclude there is no difference in the effectiveness of the two treatments. In conclusion this study, effleurage technique and warm compress equally effective, both techniques can be used to reducing the pain of dysmenorrhea.
Putri Andanawarih, Miftachul Jannah, Swasti Artanti	2020	15	It was found that the significance value (p) is 0.00 using the provision that the degree of error (α) is 5% or 0.05 so that there is a difference between menstrual pain before effleurage massage and after effleurage massage. In this study, it was found that there was a decrease in the level of menstrual pain after effleurage massage compared to before effleurage massage, this proves that massage with the effleurage technique can reduce pain.
Nur Rahmawati Sholihah, Imroatul Azizah	2020	58	This research showed a significant difference between the intervention groups and the control group was found after the intervention group was given the effleurage massage treatment ($p < 0.05$). The conclusion of this research is effleurage massage has a significant effect on reducing pain in the lower abdomen during menstruation (dysmenorrhea). It is recommended to promote effleurage massage as an alternative to non-pharmacological treatment for female adolescents to reduce pain due to their dysmenorrhea.
Suwanto, Mujtahidatul Islamiyah	2018	18	The results of research showed the mean value of pretest = 3.22 and mean posttest = 2.22, and significant value (2-tailed) = 0.000, where $p = 0.000 < \alpha$ (0.05). It means that there was effect of technique of effleurage combination ginger olive oil to dysmenorrhea in adolescents. Techniques of effleurage combination ginger olive oil can be used to help reduce the intensity of menstruation pain from the moderate category to light category.
Fatsiwi Nunik Andari, M. Amin, Yesi Purnamasari	2018	119	The results showed that there was a difference of pain scale before and after treatment therapy effleurage with P value = 0.000. It can be concluded that there is effect of massage therapy to decrease the scale of primary dysmenorrhea pain in adolescent girls at the Integrated Muhammadiyah Junior High School of Bengkulu City.

Based on systematic review on some search of Massage Effleurage on Dysmenorrhea as follows: (Andanawarih, Jannah, and Artanti 2020; Andari, Fatsiwi Nunik; Amin, M; Purnamasari 2018; Jama and Azis 2020; Sholihah and Azizah 2020; Umami, Lutfiasari, and Pradian 2016) prove an effect of abdominal effleurage massage against dysmenorrhea pain. (Hikmah, Amelia, and Ariani 2018) adds the effleurage massage using rose aromatherapy oil for 15 minutes treatment. While (Suwanto and Islamiyah 2018) combine massage effleurage with ginger olive oil to reduce dysmenorrhea pain. (Umami, Lutfiasari, and Pradian 2016) stated that Effleurage technique and warm compress equally effective, both techniques can be used to reducing the pain of dysmenorrhea

DISCUSSION

The difference in the intensity of dysmenorrhea pain felt by each respondent could be caused by differences in the time when menstruation started and differences in the perception of pain experienced. A person's pain experience is influenced by several factors which can then increase or decrease the perception of pain, including: tolerance or individual response to pain, namely previous pain experiences, culture, anxiety, gender, age and expectations of pain relief efforts (Smeltzer 2014).

Effleurage massage therapy is beneficial for improving blood circulation throughout body, maintain health in order to stay vibrant, help reduce pain and fatigue, stimulate production of endorphin hormones which function to relax the body, reduce the burden caused due to stress, get rid of toxins, healthy and balance the work of body organs. With this effleurage massage, stress, pain, and tension can be minimized. Strength and flexibility of mind, body, and emotions can be improved (Jama and Azis 2020; Suwanto and Islamiyah 2018).

Through effleurage massage, the hypoxic that occurs in the tissue will be reduced because the oxygen level in the tissue increases so that the pain you feel is reduced. In addition, it can also increase blood circulation and reduce stress and relieve stiff muscles. After being given massage there will be the release of endorphins which can increase the pain threshold that is felt so that the pain will be felt less pain. Effleurage can reduce pain by shutting down the defense mechanism in the nervous system, known as the gate control theory. Gate control theory

suggests that stimulation of nerve fibers that transmits

painless sensations can inhibit or reduce the transmission of pain impulses. (Andanawarih, Jannah, and Artanti 2020; Andria, Sudarti, and Retnaningsih 2016; Anita 2017; Hikmah, Amelia, and Ariani 2018; Umami, Lutfiasari, and Pradian 2016).

The mechanism for reducing the intensity of dysmenorrhea pain by administering effleurage massage using aromatherapy involves 2 actions, namely: aromatherapy triggers the limbic system which plays a role in reducing pain, and effleurage massage using essential oils can improve blood circulation and reduce spasms that cause pain. In addition, the effects of rose are analgesic and antispasmodic. When aromatherapy oil is used in the massage process, the aromatherapy oil is not only inhaled through the sense of smell but can also be absorbed through the skin and then into the tissues and circulatory system where it is then channeled to organs that need treatment so that the pain will be reduced (Hikmah, Amelia, and Ariani 2018; Smeltzer and Bare 2002).

Effleurage could reduce pain by exerting an effect through a descending control system. Pain that could be relieved by effleurage was for example labor pain. Menstrual pain is often defined as pain similar to labor pain, because menstrual pain also occurs with uterine contractions. Effleurage technique has several

advantages, among others, it can relieve tension and restore energy, it is easy and cheap to do. The physiological effect of vigorous rubbing affecting blood circulation to the deepest tissues and muscles is a safe, easy massage technique, does not require a lot of equipment, costs no money, has no side effects and can be performed alone or with assistance (Andria, Sudarti, and Retnaningsih 2016; Umami, Lutfiasari, and Pradian 2016).

The use of effleurage techniques to reduce menstrual pain has several advantages. The use of effleurage techniques is suitable for moderate menstrual pain and severe menstrual pain, does not require a lot of money, and does not pose a risk to the client. It is proven that all respondents who received the effleurage technique, the intensity of the pain decreased. This is because the touch of the effleurage technique will provide a sense of comfort and relaxation so that the nerve system will respond to the touch stimulation (Andari, Fatsiwi

Nunik; Amin, M; Purnamasari 2018; Suwanto and Islamiyah 2018; Umami, Lutfiasari, and Pradian 2016).

CONCLUSION

From this research it could be concluded that primary dysmenorrhea pain could be relieved by massage techniques such as abdominal effleurage massage, without having to take pharmacological drugs.

SUGGESTION

To deal with dysmenorrhea pain, it is advisable for young women not to consume it immediately pharmacological drugs but using massage therapy such as massage effleurage abdomen.

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