



The Effect of Effleurage Massage on the Scale of Back Pain in Pregnant Women in the Third Trimester at TPMB (Midwife Independent Practice) Ratna Dewi, Gunung Putri District, Bogor Regency, Indonesia

Ratna Dewi¹, Shanti Hekmawati^{1*}

¹Politeknik Bhakti Asih, Purwakarta, Indonesia

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*Corresponding author:

Shanti Hekmawati

E-mail address:

shantihekmawati@polbap.ac.id

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ABSTRACT

Effleurage is a massage technique commonly used in relaxation massage and therapeutic massage. This technique involves massaging the surface of the skin gently and repeatedly using the palms of the hands or fingers. Effleurage is usually used as part of an initial massage to prepare the client's body before deeper massage techniques are used. The gentle, rhythmic movements of effleurage help relax clients physically and mentally. This light, regular touch helps reduce muscle tension and improves blood circulation. Effleurage is used to warm up muscles and joints before a deeper massage. This helps prevent injury and makes the muscles more responsive to more intensive massage techniques. This study aimed to determine the potential of effleurage massage on the scale of back pain in third trimester pregnant women at TPMB (Midwife Independent Practice) Ratna Dewi Gunung Putri District, Bogor Regency, Indonesia. This research is an experimental research with a one group pretest-posttest design approach and uses primary data which was obtained using an assessment instrument in the form of the numeric rating scale (NRS) to determine the level of back pain in pregnant women. A total of 30 research subjects participated in this study, where the research subjects met the inclusion criteria. The research was conducted at TPMB (Midwife Independent Practice) Ratna Dewi, Gunung Putri District, Bogor Regency, Indonesia. This study shows that massage effleurage intervention is effective in reducing the intensity of back pain in pregnant women in the third trimester. There was a decrease in pain intensity after effleurage massage and it was stated to be statistically different, $p < 0.05$. In conclusion, there is an effect of effleurage massage on back pain in third trimester pregnant women at TPMB (Midwife Independent Practice) Ratna Dewi, Gunung Putri District, Bogor Regency, Indonesia.

1. Introduction

Back pain is a common problem experienced by pregnant women. Back pain during pregnancy can be caused by various factors, including physical changes that occur during pregnancy. As the fetus grows in the womb, the center of gravity of a pregnant woman's body shifts. This can cause changes in body posture, including increased lordosis or natural curves in the lower back. This change in posture can put pressure on the nerves and cause back pain. Pregnant women

experience gradual weight gain during pregnancy. This additional weight can increase pressure on the spine and joints, which can result in back pain. During pregnancy, a woman's body produces hormones such as relaxin that help loosen ligaments and joints to prepare the body for childbirth. However, these changes can also make the joints more unstable, which can lead to back pain. The growing uterus can put pressure on the back muscles, causing tension and pain. In addition, the development of larger



breasts can also affect posture and back muscles. Daily activities that require a lot of physical effort, such as lifting heavy objects or doing housework, can increase the risk of back pain during pregnancy. Although excessive physical activity can cause back pain, lack of physical activity can also worsen this condition. Light exercise and appropriate exercise during pregnancy can help strengthen the back muscles and reduce the risk of pain. Increased pressure on the spinal cord by the expanding uterus can cause lower back pain, especially in the last trimester of pregnancy.¹⁻³

Effleurage is a massage technique commonly used in relaxation massage and therapeutic massage. This technique involves massaging the surface of the skin gently and repeatedly using the palms of the hands or fingers. Effleurage is usually used as part of an initial massage to prepare the client's body before deeper massage techniques are used. The gentle, rhythmic movements of effleurage help relax clients physically and mentally. This light, regular touch helps reduce muscle tension and improves blood circulation. Effleurage is used to warm up muscles and joints before a deeper massage. This helps prevent injury and makes the muscles more responsive to more intensive massage techniques. Massaging movements across the surface of the skin help increase blood flow to the area being massaged. It helps oxygenate tissues and remove waste products from the body.⁴⁻⁶ This study aimed to determine the potential of massage effleurage on the scale of back pain in third-trimester pregnant women at TPMB (Midwife Independent Practice) Ratna Dewi,

Gunung Putri District, Bogor Regency, Indonesia.

2. Methods

This research is experimental research with a one-group pretest-posttest design approach and uses primary data obtained using a numerical assessment instrument numeric rating scale (NRS) to determine the level of back pain in pregnant women. A total of 30 research subjects participated in this study, where the research subjects met the inclusion criteria. The research was conducted at TPMB (Midwife Independent Practice) Ratna Dewi, Gunung Putri District, Bogor Regency, Indonesia. The inclusion criteria in this study were pregnant women in the third trimester who experienced back pain and were willing to take part in the research. Effleurage massage is carried out 4 times within 2 weeks. Data analysis was carried out using SPSS version 25 software univariately and bivariate to assess the frequency distribution of each variable and assess the influence of the research conducted, with a p-value <0.05.

3. Results and Discussion

Table 1 presents the effectiveness of the pre and post-test interventions. This study shows a massage intervention effleurage shows the effectiveness of reducing the intensity of back pain in pregnant women in the third trimester. There is a decrease in pain intensity after massage effleurage declared statistically different, $p < 0.05$.

Table 1. Effectiveness of pre and post-test interventions.

Variable	Pre-test	Post-test	P-value*
Pain scale level	4,38±0,23	1,82±0,19	0,001

*T-test dependent, $p < 0,05$.

The gentle, repetitive movements of effleurage help stimulate the body's relaxation response. The presence of a therapist who is trained in gently performing these movements provides a comfortable and calming

experience for the client. Effleurage helps reduce muscle tension by stimulating the muscles to relax. This is especially beneficial for those who frequently experience muscle tension, either due to excessive



physical activity or daily stress. The soft touch and comfortable feeling provided by Effleurage can stimulate the release of endorphins in the body. Endorphins are hormones known as happy hormones because they have a positive effect on mood and feelings of well-being. This can help reduce physical and mental stress. The relaxing effect of effleurage is not only physical but also mental. Clients often feel calmer, relaxed, and happier after an effleurage massage session.⁷⁻⁹

The gentle, regular movements of Effleurage help stimulate the blood vessels in the area being massaged. This causes increased blood flow to the area. Increased blood flow brings more oxygen and nutrients to the body cells in the area being massaged. This is very important for maintaining healthy cells and body tissues. Increased blood flow also helps in transporting metabolic waste products such as lactic acid and toxins out of the tissues. It can help reduce muscle fatigue and improve recovery after intense physical activity. Effleurage helps warm muscle tissue by stimulating blood flow. Warmer muscles become more pliable and responsive to deeper massage techniques, such as deep massage or muscle manipulation. By increasing blood flow and warming muscles, Effleurage may also help reduce the risk of muscle or ligament injury during intense physical activity. This is the reason why pre-workout massages often include the Effleurage technique.¹⁰⁻¹²

The lymphatic system is an important part of the immune system, whose job is to transport lymph fluid through the body. Lymph fluid contains white blood cells, antibodies, and chemicals that help fight infections and maintain fluid balance in the body. The gentle, rhythmic movements of effleurage help move lymph fluid through the lymphatic channels. It increases lymph flow in the body, helping to clear toxins, waste substances, and metabolic waste that accumulate in the tissues. By increasing lymphatic flow, effleurage assists the body in eliminating toxins and waste that can cause discomfort and damage

health. It helps cleanse tissues and maintain healthy body cells. Increased lymphatic flow can also improve the immune system's response to infection and disease. This helps in maintaining overall body health. Effleurage can be a useful technique in recovery after injury or surgery. In these conditions, increasing lymphatic flow can help reduce swelling and speed healing.¹³

Effleurage's gentle, rhythmic movements help relax tense muscles. This can happen because gentle touch triggers muscle relaxation reflexes and reduces spasms. For those who participate in strenuous physical activity or sports, muscles often experience tension and fatigue. Effleurage can help reduce this tension and support muscle recovery. Apart from physical tension, emotional and mental stress can also cause muscle tension. An Effleurage massage session can help relieve muscle tension caused by stress. Increased blood flow to the muscles during effleurage also helps increase the supply of oxygen and nutrients to tense muscles. This helps muscles to recover faster. Effleurage can provide temporary pain relief for those with tight muscles or muscle aches. This can help reduce pain and discomfort. For those who engage in intensive physical activity or do heavy physical work, Effleurage massage can be an effective way to reduce excessive muscle fatigue.^{14,15}

4. Conclusion

There is an influence of massage effleurage on back pain in third-trimester pregnant women at TPMB (Midwife Independent Practice) Ratna Dewi, Gunung Putri District, Bogor Regency, Indonesia.

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