

THE EFFECT OF EFFLEURAGE MASSAGE ON REDUCING THE LEVEL OF PAIN DURING THE ACTIVE PHASE IN WOMEN IN LABOR

N. Yeni Fitria¹, Sri Wulandari¹, Dewi Hidayati¹, Achmad Fauzi^{1*}

¹Sekolah Tinggi Ilmu Kesehatan Abdi Nusantara, Bekasi, Indonesia

*Corresponding Author: Fauzi.umay@gmail.com

ABSTRACT

Physiological childbirth will always be accompanied by pain. Physiological pain can turn pathological and endanger the safety of the mother and fetus. There is a way to relieve pain without side effects and easy to do, namely Massage effleurage. However, empirical evidence of its effectiveness is still not widely reported. The purpose of this study was to analyze the effect of massase effleurage on reducing labor pain when 1. Experimental quasi-quasi-experimental research was carried out at Bekasi Regional General Hospital, BPM midwife Sri Wulandari Pakisjaya Karawang, and BPM Anila Novita Dewi. in April to May 2023. 45 maternity mothers received normal labor care and 45 maternity mothers received massage effleurage. The analysis carried out is an independent t test. Analysis of the effectiveness of massage effleurage showed that the difference in the average degree of pain between the 2 groups was 4.98 for the massage effleurage group and 6.58 in the normal and statistically significant delivery care group (p value <0.001; 95% CI 0.93 - 2.27). Massase effleurage intervention is effective in reducing pain in maternity mothers during I.

Keywords: Massase effleurage, Pain Level, Maternity

ABSTRAK

Persalinan fisiologis akan selalu disertai rasa sakit. Nyeri fisiologis dapat berubah menjadi patologis dan membahayakan keselamatan ibu dan janin. Ada cara meredakan nyeri tanpa efek samping dan mudah dilakukan, yaitu Massage effleurage. Namun, bukti empiris mengenai efektivitasnya masih belum banyak dilaporkan. Tujuan penelitian ini adalah menganalisis pengaruh pijat effleurage terhadap penurunan nyeri persalinan. Penelitian eksperimental kuasi-eksperimental dilakukan di RSUD Bekasi, bidan BPM Sri Wulandari Pakisjaya Karawang, dan BPM Anila Novita Dewi. pada bulan April sampai Mei 2023 sebanyak 45 ibu bersalin mendapatkan pelayanan persalinan normal dan 45 ibu bersalin mendapatkan pijat effleurage. Analisis yang dilakukan adalah uji t independen. Analisis efektivitas pijat effleurage menunjukkan bahwa perbedaan rata-rata derajat nyeri antara 2 kelompok adalah 4,98 pada kelompok pijat effleurage dan 6,58 pada kelompok pelayanan persalinan normal dan signifikan secara statistik (p value <0,001; 95% CI 0,93 - 2.27). Intervensi massase effleurage efektif dalam mengurangi nyeri pada ibu bersalin.

Kata Kunci: pijat effleurage, tingkat nyeri, persalinan

INTRODUCTION

Labor will certainly always be accompanied by pain, physiologically there are two types of sources of pain, namely pain due to uterine muscle contractions called pain *visceral* (dull pain, burning and faint boundaries of its location) and pain due to the opening of the birth canal (perineum), distention of the base muscles and shifting of some pelvic bones (Handayani, 2016; Rahman, 2017).

Physiological pain can turn pathological if felt continuously, as well as the psychological disorders of maternity mothers such as fear and anxiety. This can result

in fatigue, resulting in a decrease in uterine contractions and the labor process lasts longer. Prolonged labor (*prolonged labor*), fetal hypoxia due to acidosis, and causes an increase in fetal heart rate which will result in death in the fetus in the womb. The intensity of pain in each mother is different depending on abdominal distention, greater distention causes the intensity of pain to be more severe. If the mother cannot bear the pain, it will cause distress to the baby and affect the baby to be born (Herinawati, 2019). (Sari, 2018).

Pain during labor can also increase the prevalence of elective *cesarial cesorie*. Previous research reported that 35% of mothers giving birth because of *sectio caesaria* (SC) because they were afraid of labor pain. Labor pain is the most significant source of discomfort during childbirth (Zahra, 2014).

There are two ways to relieve labor pain or pain, namely medically and non-medically. The way to eliminate labor pain medically is to administer analgesia drugs injected through intravenous infusions, through respiratory tract inhalation, or by blocking the nerves that deliver pain. However, this method certainly cannot be used other than by doctors and will cause side effects. So that the safest way to do by midwives is non-medical methods, one of which is massage (Mukhoirotin, 2017) (Parulian, 2014) *Effleurage* which is one of the nonpharmacological methods proposed by Melzak and Wall. (Bingan, 2020; Lestari, 2019).

Massage *Effleurage* is a psychological analgesia performed since the beginning of childbirth (inpartu), which can cause a relaxation reaction. Massage effleurage is the provision of cutaneous stimulation actions, this action is almost the same as the act of giving aroma therapy, hypnosis, acupuncture and yoga (Handayani, 2016). Main actions (Argaheni, 2021) *Effleurage* Massage is an application of theory *Gate Control* which can "close the gate" to inhibit the passage of excitatory pain at higher centers in the central nervous system. (Santiasari, 2018).

Previous studies have reported the effect of *independent sample T-test results*, in the massage effleurage treatment group obtained an average value of 4.00 and the control group 6.25 obtained a p value of 0.031 ($p \leq 0.05$). There was a significant difference in the average intensity of labor pain during the first between the treatment group and the control group. (Magfirah, 2020). Based on this background, the author is interested in conducting research and analyzing the effect of massase *effleurage* on reducing labor pain when 1.

METHOD

The research design used is a type of experimental quasi-experimental experimental research that will use 2 groups, namely the intervention group with *effleurage* massase and the control group given obstetric care as usual. There are 3 research locations, namely at Bekasi Regional General Hospital, BPM midwife Sri Wulandari Pakisjaya Karawang, and BPM Anila Novita Dewi. Research in April to May 2023. The study subjects were 90 people divided into 45 maternity mothers getting normal labor care and 45 maternity mothers getting massage *effleurage*. Bivariate analysis performed on two variables that are thought to be related or correlated. In this study, the analysis used was an *independent t test*.

Intervention and Measurement

Massage effleurage is given by: (1) Rubbing both fingertips with light, firm and constant pressure sideways around the side of the abdomen towards the fundus uteri. (2) After reaching the fundus uteri along with expiration, gently rub the fingertips of the hand towards the lower abdomen above the pubic symphysis through the umbilicus. (3) Do this movement repeatedly for 20 minutes every time there is a contraction. Pain measurement is done by (Wulandari, 2018) *Verbal rating scale* Or ask the mother the

degree of pain and ask the mother to rate the pain from the one the researchers started the scale from 1 (not too painful) to 10 (very painful). (Atisook, 2021)

RESULT

Based on table 1, it can be seen that the majority of respondents are still in reproductive age, namely between 20 years to 35 years as many as 55 subjects (61.1%) and have education equivalent to high school (SMA) as many as 52 subjects (57.8%).

Based on the distribution in table 2, the average frequency of pain degrees in the message *effleurage* group was much lower by 2 points than the normal delivery care group. In addition, the maximum value of pain degree in the labor care group was much higher than in the massage *effleurage* group.

Analysis of the effectiveness of massage *effleurage* showed that the difference in the average degree of pain between the 2 groups was 4.98 for the massage *effleurage* group and 6.58 in the normal and statistically significant delivery care group (p value < 0.001 ; 95% CI 0.93 - 2.27) (Table 3).

DISCUSSION

The results showed that mass intervention *Effleurage* effective in reducing the degree of pain in maternity mothers when I. Massase rationality *Effleurage* In reducing pain it has been reported that skin stimulation with *effleurage* technique produces impulses sent through large nerve fibers located on the surface of the skin, these large nerve fibers will close the gate so that the brain does not receive pain messages because it has been blocked by skin stimulation with this technique, as a result the perception of pain will change in addition to relieving pain, massage will stimulate the uterine muscles to contract. (Gasibat, 2017).

Advanced mechanisms in massage *Effleurage* Related pain reduction is "Gate Control Theory". Where the pain fibers that carry the pain stimulus to the brain are smaller and the sensation moves slower than the large tactile fibers. When touch and pain are stimulated simultaneously, tactile sensations travel to the brain and "close the gates" in the brain, limiting the amount of pain the brain feels so as to provide comfort, induce relaxation, and stimulate the production of endorphins that relieve pain naturally. (Geethanjali, 2020).

The results of this study are in line with research conducted by those who report that based on the results of statistical tests ((Suriani, 2019) *Uji Paired Sample T Test*) obtained $p = 0.000 < 0.05$ ($p < \alpha$), then there is a significant influence between Back-Effleurage Massage Technique on reducing labor pain Kala I.

Technique *Effleurage* Done by using hand touch on the client's stomach slowly and gently will cause a relaxing effect. The principle of this method is to reduce maternal tension so that the mother feels comfortable and relaxed in the face of childbirth and does not cause respiratory depression in the baby born (Fitria, 2022).

Table 1. Characteristics of the subject of study

Characteristic		Frequency (n)	Percentage (%)
Age			
< 20 years		29	32.2
20 - 35 years		55	61.1
> 35 Years		6	6.7
Total		90	100
Education			
Elementary-Junior School	High	26	28.9

SMA	52	57.8
University	12	13.3
Total	90	100

Table 2. Frequency distribution of pain degrees in each group

	Massage <i>effleurage</i>	Normal Maternity Care
Mean	4.98	6.58
Maximum	8	10
Minimum	2	2
Standard deviation	1.35	1.82
Median	5	7

Table 3. Analysis of the effectiveness of massase *effleurage* in reducing the degree of maternal pain in childbirth when 1

	Mean	P value	95% CI
Group massage <i>effleurage</i>	4.98	<0.001	0.93 2.27
Normal Childbirth Care Group	6.58		

CONCLUSIONS & NURSING IMPLICATION

Non-pharmacological therapy such as message *effleurage* deserves to be developed and used as an alternative in reducing labor pain. because this action is non-invasive and also does not cause harmful side effects. however, research with large-scale pure experimental designs is still urgently needed to strengthen the basis for its application

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REFERENCES

- Argaheni, N. B. (2021). Systematic review: The effect of massage *effleurage* on dysmenorrhea. *Jurnal Ners dan Kebidanan (Journal of Ners and Midwifery)*, 8(1), 138-143.
- Bingan, E. C. (2020). PENGARUH TEKNIK MASSASE EFFLEURAGE TERHADAP TINGKAT NYERI PADA IBU BERSALIN. *Midwifery Care Journal*, 1(5), 115-121.
- Handayani, S. (2016). Massage *Effleurage* Terhadap Tingkat Nyeri Kala 1 Fase Aktif. *Jurnal Kesehatan Samodra Ilmu*, 7(2), 122-132.
- Herinawati, H. H. (2019). Pengaruh *Effleurage* Massage terhadap Nyeri Persalinan Kala I Fase Aktif di Praktik Mandiri Bidan Nuriman Rafida dan Praktik Mandiri Bidan Latifah Kota Jambi Tahun 2019. *Jurnal Ilmiah Universitas Batanghari Jambi*, 19(3), 590-601.
- Lestari, S. &. (2019). Pengaruh Massage *Effleurage* Terhadap Perubahan Tingkat Nyeri Pada Pasien Kala 1 Fase Aktif Persalinan. *jurnal kesehatan*, 10(1), 12-18.
- Argaheni, N. B. (2021). Systematic review: The effect of massage *effleurage* on dysmenorrhea. *Jurnal Ners dan Kebidanan (Journal of Ners and Midwifery)*, 8(1), 138-143.
- Bingan, E. C. (2020). PENGARUH TEKNIK MASSASE EFFLEURAGE TERHADAP TINGKAT NYERI PADA IBU BERSALIN. *Midwifery Care Journal*, 1(5), 115-121.

- Handayani, S. (2016). Massage Effleurage Terhadap Tingkat Nyeri Kala 1 Fase Aktif. *Jurnal Kesehatan Samodra Ilmu*, 7(2), 122-132.
- Herinawati, H. H. (2019). Pengaruh Effleurage Massage terhadap Nyeri Persalinan Kala I Fase Aktif di Praktik Mandiri Bidan Nuriman Rafida dan Praktik Mandiri Bidan Latifah Kota Jambi Tahun 2019. *Jurnal Ilmiah Universitas Batanghari Jambi*, 19(3), 590-601.
- Lestari, S. &. (2019). Pengaruh Massage Effleurage Terhadap Perubahan Tingkat Nyeri Pada Pasien Kala 1 Fase Aktif Persalinan. *jurnal kesehatan*, 10(1), 12-18.
- Mukhoirotin, M. &. (2017). Pengaruh Akupresur Pada Titik Sanyinjiao Terhadap Penurunan Intensitas Nyeri Persalinan Kala I Fase Aktif. *Jurnal Keperawatan*, 6(2).
- Magfirah, M. &. (2020). Metode Massage Effleurage Terhadap Intensitas Nyeri Pada Persalinan Kala I. *Jurnal Kebidanan Malahayati*, 6(4), 481-481.
- Parulian, T. S. (2014). Pengaruh Teknik Effleurage Massage terhadap Perubahan Nyeri pada Ibu Post Partum di Rumah Sakit Sariningsih Bandung. *Jurnal Keperawatan*, 4(2), 1-9.
- Rahman, S. A. (2017). Penurunan Nyeri Persalinan Dengan kompres Hangat dan Massage Effleurage. *Jurnal Kesehatan Universitas Hasanuddin*, 13(2), 147-152.
- Santiasari, R. N. (2018). Effectiveness of Effleurage and Counter-Pressure Massages in Reducing Labor Pain. *Health Notions*, 2(7), 721-724.
- Sari, D. P. (2018). Nyeri persalinan. *E-Book Penerbit STIKes Majapahit*, 1-30.
- Zahra, G. R. (2014). Assessing the relative contribution of causes leading to cesarean section among women who had referred to Shahid Madani Clinic in Marand city.
- Wulandari, P. &. (2018). Pengaruh Massage Effleurage Terhadap Pengurangan Tingkat Nyeripersalinan Kala I Fase Aktif Pada Primigravida Di Ruang Bougenville Rsud Tugurejo Semarang. *jurnal keperawatan maternitas*, 3(1), 59-67.
- Atisook, R. E. (2021). Validity and utility of four pain intensity measures for use in international research. *Journal of pain research*, 1129-1139.
- Gasibat, Q. &. (2017). Determining the benefits of massage mechanisms: a review of literature. *Rehabilitation Sciences*, 3(2), 58-67.
- Geethanjali, S. V. (2020). Effect of clary sage oil as an aromatherapy on cardiac autonomic function among patients with premenstrual syndrome -A randomized controlled study. *Obesity Medicine*, 18, 100193. <https://doi.org/10.1016/j.obmed.2020.100193>.
- Suriani, S. N. (2019). Pengaruh Teknik Massage Back-Effleurage Terhadap Pengurangan Rasa Nyeri Persalinan Kala I Di Klinik Bersalin Kurnia Kecamatan Delitua Kabupaten Deli Serdang. *Jurnal Penelitian Keperawatan Medik*, 2(1), 24-29.
- Fitria, A. &. (2022). Pengaruh Massage Effleurage dalam Mengurangi Nyeri Persalinan Kala I di PMB Bidan Lilis Tanah Tinggi Kota Tangerang. *Wellness And Healthy Magazine*, 4(2), 275-282.