



# The Effect of Effleurage Massage on Reducing Labor Pain in Laboring Mothers at Puskesmas Sarimotandang Sidamanik Year 2022

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## ABSTRACT

Context: Epidural massage, also known as massage, is a type of skin stimulation employed to effectively alleviate pain during childbirth. The purpose of this research is to determine whether or not massage effleurage can alleviate labor pain in the mother. This is an analytical study employing an experimental design with a pre- and post-test for a single group. The study sample comprised 35 individuals who were in labor and were mothers at the Sarimotandang Health Center. Through the distribution of questionnaires to respondents, data was gathered. Data cleansing, tabulating, editing, coding, and entry are the initial steps in data processing. Analyzing data with the paired T test. Findings: An effect of effleurage massage on labor pain in laboring mothers was observed both prior to and following the intervention ( $p = 0.000$ ). In conclusion, it is advisable for the expectant mother to seek guidance from healthcare professionals regarding the issue of labor pain.

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## 1. INTRODUCTION

Despite the fact that labor pain is a physiological phenomenon, it induces in mothers the perception that childbirth is a traumatic and distressing experience. In general, expectant mothers report being unable to endure the excruciating pain, which is particularly intense in the abdomen, waist, and radiating to the spine; consequently, the pain is persistent during the initial phase of labor.

Additionally, labor pain can induce hyperventilation, which elevates blood pressure, increases oxygen demand, and decreases intestinal motility and vesica urinaria. This circumstance will induce a surge in catecholamines, which may disrupt the intensity of uterine contractions and lead to uterine inertia. Prolonged parturition may ensue if labor pain is not alleviated (Anita, 2017).

According to the World Health Organization (WHO), concerning the national health status in relation to the attainment of the Sustainable Development Goals (SDGs), maternal mortality rates (MMR) stand at 216 per 100,000 live births, or approximately 830 deaths per day among women worldwide caused by complications during pregnancy and childbirth. The MMR ratio remains significantly elevated, with a target of 70 per 100,000 live births by 2030 (WHO, 2017).

It is critical to manage and monitor labor pain, particularly in the initial phase, as this determines whether the laboring mother will experience a smooth progression or be compelled to terminate the process due to complications arising from severe pain. With the use of both pharmacological and non-pharmacological approaches, labor pain can be diminished. Prior to resorting to analgesic drugs, non-pharmacological approaches to pain management should be given due consideration, whenever feasible. Although a portion of pharmacological pain management is primarily a medical intervention, it does cause adverse effects on the fetus and mother (Seftianingtyas, WN, et al., 2021).

According to the findings of an initial survey of ten mothers interviewed by the author, the vast majority of mothers reported never having used effleurage massage to alleviate labor pain because they were unaware of its benefits during labor. On the basis of this phenomenon, the researcher is interested in conducting research at the Sarimotandang Health Center, Sidamanik District, Simalungan Regency in 2022 regarding the Effect of Massage Effleurage on the Decrease in Labor Pain in Maternity Women.

## 2. RESEARCH METHODS

This research employs an experimental study design with a one-group pre-posttest configuration to analyze the impact of effleurage massage on the reduction of labor pain in the maternity ward. The sample for this research comprised 35 mothers of infants who were attending the Sarimotandang Health Center. The sample utilized in this research constituted total sampling.

### 3. RESULT AND ANALYSIS

**Table 1 Average labor pain in laboring mothers before and after Effleurage Massage at Sarimatondang Health Center, Sidamanik District, Simalungun Regency, 2022**

No	Variabel	N	Minumum	Maksimum	Mean	SD
<b>Pretest</b>						
1	Nyeri Persalinan pada ibu bersalin	35	5	9	6.57	1,065
<b>Posttest</b>						
2	Nyeri Persalinan Pada Ibu bersalin	35	5	6	3.34	0,938

Table 1 shows that the mean labor pain in laboring women before effleurage massage was 6.57 with a standard deviation of 1.065. The mean labor pain in laboring women after effleurage massage is 3.34 with a standard deviation of 0.938.

**Table 2. The Effect of Effleurage Massage on Reducing Labor Pain in Active Phase I Mothers at the Sarimatondang Health Center, Sidamanik District, Simalungun Regency, 2022**

No	Variabel	n	Rerata±s.b	Perbedaan rerata	<i>p value</i>
1	Nyeri persalinan ibu bersalin sebelum diberikan massage effleurage (pretest)	35	6.57±1,065		
2	Nyeri persalinan ibu bersalin sebelum diberikan massage effleurage & nyeri persalinan ibu bersalin sesudah diberikan (posttest)	35	3.34±0,938	0,127	0,000

Table 2 shows that the mean labor pain in laboring women before effleurage massage is 6.57 with a standard deviation of 1.065, while the mean labor pain in laboring women after effleurage massage is 3.34 with a standard deviation of 0.938. The average difference in labor pain in laboring women before and after effleurage massage is 0.127. The results of statistical tests showed that there was an effect of effleurage massage on reducing labor pain in laboring women at the Sarimatondang Health Center, Sidamanik District, with a value of  $p = 0.000$ .

### 4. DISCUSSION

#### **Average Labor Pain in Active Phase I Mother Before and After Effleurage Massage**

The results showed that the mean labor pain in laboring women before effleurage massage was 6.57 with a standard deviation of 1.065, while the mean labor pain in laboring women after effleurage massage was 3.34 with a standard deviation of 0.938. This means that message effleurage can reduce labor pain in laboring women. it can be seen from the results of the study that laboring women who do effleurage massage show that there is a significant difference before and after the intervention.

Physiologically, the whole body of a woman in labor will experience pain during her labor process, so it cannot be denied, that in the process of labor, labor pain includes things that cannot be separated from the labor process (Kastubi, 2017).

Massage or abdominal massage (effleurage) is a form of skin stimulation used during labor to effectively reduce pain. Effleurage comes from the French language. Effleurage is a massage technique in the form of soft, slow, and long strokes or not broken. This technique creates a relaxing effect. In labor, effleurage is performed using soft and light fingertips. Do the strokes lightly and without strong pressure, but try to keep the fingertips off the surface of the skin. Effleurage massage can also be performed on the back. The main purpose is relaxation (Mons Dragon, in Handayani, et al 2017).

### **The Effect of Effleurage Massage on Reducing Labor Pain in Maternity**

One potential remedy for labor pain is the application of Effleurage massage. Effleurage massage is included in the Summary of pain relief measures during labor as one of the massage methods to alleviate pain. Laboring mothers can perform effleurage during phase I latent phase (opening 0-3 cm) and active phase (opening 4-7 cm) activities. Effleurage is a light finger massage performed in rhythm with the contractions of the hand, typically on the abdomen. During contractions, effleurage may be performed by the laboring mother or a labor companion. By applying Gate Control theory, effleurage massage effectively "closes the gate" and prevents pain stimuli from reaching higher centers of the central nervous system (Herinawati et al., 2019).

According to the findings of the research (Fitriani, D & Sitepu, P, 2018), hypertensive patients in the Bakti Jaya Setu South Tangerang Health Center area experienced a reduction in blood pressure subsequent to receiving effleurage massage. The average systolic blood pressure decreased by 19.4 mmHg prior to and following the intervention, while the average diastolic blood pressure decreased by 9.8 mmHg; a significance level of  $P = 0.005$ . Similarly, empirical investigations (Seftianingtyas, WN, et al., 2021) have demonstrated that effleurage massage reduces laboring mothers' pain levels ( $p = 0.001 < 0.05$ ).

The findings of this study are consistent with those of (Sri Wahyuni, 2017), specifically the analysis of the impact of effleurage massage on labor pain relief during the active phase I at RSU PKU Muhammadiyah Delanggu in 2015. The p-value was 0.000 and the significance level was 0.05; therefore, it can be concluded that the implementation of effleurage massage has a substantial influence on labor pain relief during the active phase I. The presence of notable distinctions suggests that effleurage massage may serve as an effective intervention for labor pain.

Based on the author's assumption, the effleurage massage technique appears to be a straightforward procedure to execute. The laboring mother can perform the technique herself by employing circular motions with both palms of her fingers in the abdomen. The movements commence at the lower abdomen adjacent to the pubic symphysis, progress to the side of the abdomen, then traverse to the fundus uteri, descend to the umbilicus, and ultimately return to the lower abdomen adjacent to the pubic symphysis. The massage p Because of this, effleurage massage is an essential technique for all laboring mothers in order to alleviate labor pain and enable them to carry out the process in comfort.

## 5. CONCLUSION

Based on the results of research on the effect of effleurage massage on reducing labor pain in mothers in partu kala 1 active phase, the following conclusions can be drawn:

1. The mean labor pain in laboring women before effleurage massage is 6.57 with a standard deviation of 1.065, while the mean labor pain in laboring women after effleurage massage is 3.34 with a standard deviation of 0.938. The difference in mean labor pain in laboring women before and after effleurage massage is 0.127.
2. There is an effect of effleurage massage on reducing labor pain in laboring women at the Sarimatondang Health Center, Sidamanik District, with a value of  $p = 0.000$ .

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