

# EffieuranceMassage by Husband on the Level of Pain in Maternal When the 1 Phase is Active

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## Effleurage Massage by Husband on the Level of Pain in Maternal When the 1 Phase is Active

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### Abstract

Physiological events at the time of delivery can sometimes traumatize the mother because of the pain she experiences. According to a preliminary survey of 9 mothers giving birth during the first active phase, there was one mother who gave birth without pain, two mothers who gave birth experienced moderate pain, and six mothers who experienced very severe pain, so the pain of labour in the first stage of the active phase was still high. This study aimed to determine the effect of effleurage massage by husbands on the level of maternal pain during the first active phase at the Sifra Langowan Maternity Clinic, Minahasa Regency, in 2021. This study is an inferential study with a pre-experimental design. This study's population consisted of women during the first active phase of labor, with 16 respondents selected using the approach of purposive sampling. Using observation sheets to collect data, which is subsequently evaluated using the Wilcoxon test. According to the results of the study, the majority (56.25 percent) of participants suffered severe pain before the effleurage massage, but almost half (37.50 percent) experienced mild discomfort after the massage. The examination of the data revealed that the p-value was less than 0.05, thus  $H_0$  was rejected and  $H_1$  was approved, indicating that effleurage massage by the husband has an influence on the level of maternal pain during the first stage of the active phase. This approach is effective, has no side effects, and can lessen contraction-related labor discomfort for mothers in active phase 1 of labor. It is thought that effleurage massage can alleviate labor discomfort during the initial portion of the active phase.

**Keywords** Effleurage Massage, Maternity, Stage 1 Active Phase.

### INTRODUCTION

Labor and delivery are physiological processes, whereas the birth of a child is an anticipated social event for mothers and their families. When labor begins, the mother's duty is to give birth, while the health care provider's role is to monitor the delivery for early detection of difficulties. In addition, the family offers the mother assistance and support (Maghalian et al., 2022). Not handling labour properly can cause the delivery process not to run smoothly so that the duration of labor is longer than average (Fitri et al., 2021).

Mortality and mortality in pregnant and maternity women and new babies has

long been a problem, especially in developing countries around 25-50%, deaths of women of periphery age are caused by things related to pregnancy. Death during childbirth is the main cause of mortality for women at their peak of productivity. The World Health Organization (WHO) estimates that 800 women die every day due to complications pregnancy and childbirth, about 99% of all maternal deaths occur in developing countries, about 80% of maternal deaths are caused by an increase in complications during pregnancy, childbirth and postpartum after childbirth.

Millennium Development Goals (MDGs) 2020, namely an improvement in

maternal and infant health, the Indonesian Ministry of Health targets to reduce the under-five mortality rate (IMR) to 32 per 100 thousand live births in 2020, and the next target is to reduce the maternal mortality rate (MMR) to 359 per 100,000 live births in 2019. The maternal mortality rate (MMR) in the world, according to 2014 WHO report, is 289,000 people. The United States is 9,300 inhabitants, North Africa 179,000, and Southeast Asia 16,000. Maternal mortality rates in Southeast Asian countries per 100,000 live births are Indonesia at 214 people, the Philippines at 170 people, Vietnam at 160 people, Thailand at 44 people, Brunei at 60 people, and Malaysia at 39 people.

Pregnant women often complain about physiological adaptation to the musculoskeletal system, namely changes in body posture, especially in the third trimester, with a fetal age range of around 25-40 weeks. Sanitasari et al. (2018) added that there is increased mobility in the sacroiliac, sacrococcygeal, and pubic joints during pregnancy, possibly due to hormonal changes. Such mobility can lead to changes in the mother's posture, and subsequent lower back discomfort, especially in late pregnancy.

According to research, back pain during pregnancy is most prevalent between the fifth and seventh months. In certain instances, back pain during pregnancy might occur between 8 and 12 weeks of gestation (Fitri et al., 2022). Over fifty percent of pregnant women in the United States, Canada, Iceland, Turkey, Korea, and Israel suffer from back pain. In non-Scandinavian nations such as Northern America, Africa, the Middle East, Norway, Hong Kong, and Nigeria, the prevalence ranges from 21 percent to 89.9 percent. In a 2014 online poll performed by the University of Ulster, 70 percent of the 157 pregnant women who participated reported back pain (Maghalian et al., 2022). In a similar study at the Women's Health Clinic-Kuwait in 2012, of

280 pregnant patients, 91% (255) experienced back pain. In another study at the Raja Mutiah Medical College and Hospital of 172 pregnant women, 104 (60.5%) experienced back pain.

Physiological events at the time of delivery can sometimes traumatize the mother because of the pain she experiences. Some mothers are even traumatized to get pregnant again for fear of experiencing the same pain. For mothers who have given birth, labor pain is the most painful, especially for mothers who are experiencing it for the first time (Smith et al., 2022). According to Ibrahim & Ali (2020), pain in labor, if not overcome, will increase the feeling of worry, tension, fear and stress. Meanwhile, according to Abd-Ella (2018), if the fetus does not immediately address the pain in the womb, hypoxia due to acidosis will occur, and the fetal heart rate will be faster, which will result in death of the fetus in the womb.

15 percent of women in Indonesia faced problems during childbirth, and 21 percent reported a painful labor and delivery, according to information from the association of hospitals in Indonesia. Comparatively, 63 percent of women did not obtain information about labor pain reduction preparations (Turkmen & Oran, 2021). Medically classified as acute and hot or somatic-sharp and burning, delivery pain is the most excruciating of all types of pain. In a study of women in the early stage of labor using the Mc. Gill Pain Questionnaire to assess pain, sixty percent of women who gave birth described uterine contraction-related pain as extremely acute and thirty percent as moderate. In multiparas, 45 % experienced severe pain, 30 % moderate discomfort, and 25 % light pain (Abadian et al., 2020).

According to a preliminary survey at the Sifra Langowan Maternity Clinic, Minahasa Regency, among nine mothers in active phase I childbirth, there was one mother in labor without pain, two mothers in labor experienced moderate, and six

mothers experienced very severe pain in the active phase at Sifra Langowan Maternity Clinic, Minahasa Regency. About 90% of mothers giving birth are always accompanied by pain, while pain during labour is joint. Physiologicalevents at the time of delivery can sometimes traumatize the mother because of the pain she experiences. Some mothers are even traumatized to get pregnant and give birth again for fear of experiencing the same pain. Extreme pain following childbirth is associated with psychiatric illnesses, with 87 percent of mothers experiencing postpartum blues between 2 weeks and 1 year, 10 percent experiencing depression, and 3 percent experiencing psychosis (Murtianingsih & Andani, 2018). The pain present during delivery manifests the contraction (shortening) of the uterine muscles. These contractions cause pain in the waist and abdomen and radiate to the thighs. This contraction causes the opening of the cervix. With the opening of the cervix, labour will occur (Rejeki et al, 2021). The actual contractions will appear and regularly disappear with increasing intensity over time. The stomach will experience contraction and relaxation; at the end of pregnancy, the process will occur more often. At first, the contractions felt like a pain in the lower back, gradually shifting to the lower part of the abdomen, similar to heartburn during menstruation (Sharma & Kurnari, 2019). It is essential to control labor pain to give the mother a sense of comfort when giving birth because this is one of the mother's loving care, which is the role and function of the midwife (Haseli et al., 2019).

Labor pain can be controlled by two methods, namely pharmacological and non-pharmacological. Pharmacological pain relief methods use chemical drugs, while non-pharmacological methods are carried out naturally without using chemical drugs, namely by performing relaxation techniques that include deep breathing relaxation, muscle relaxation, massage, music and aromatherapy

(Zuwariah & Ristanti, 2019). Effleurage massage technique is a non-pharmacological way to reduce pain in childbirth mothers. The effleurage massage technique can cause distraction and relaxation, thus helping the mother to be more relaxed, creating a feeling of comfort and decreasing pain response. In Indonesia, this technique is still not yet widespread and still rarely done (Yildirim et al, 2018).

2 The purpose of Effleurage massage is to produce impulses that are sent through large nerve fibres on the surface of the skin; these large nerve fibres close the gate for pain messages so that the brain does not receive pain messages because it has been blocked by skin stimulation, and this massage technique can activate endorphins. At the synapse of the spinal cord and brain nerve cells, it is possible to impede the passage of pain impulses, so altering the sense of pain. In addition to alleviating pain, this approach can reduce muscle tension and enhance blood flow to the afflicted location (Vijale, 2021).

According to research conducted by Fasikhatur et al. (2019) in the Bougenville Room of Tugurejo Hospital Semarang and titled The Effect of Effleurage massage on Reduction of Labor Pain Levels in the Active Phase I, there is an effect of Effleurage massage on the intensity of labor pain in the first active phase for pregnant women. This demonstrates that the application of effleurage massage treatment as a non-pharmacological therapy can lower the intensity of laboring women' discomfort. The authors want to undertake a study entitled "The Effect of Effleurage massage by Husband on Maternal Pain Levels in Active Phase I at SifraLangowan Maternity Clinic, Minahasa Regency in 2021" based on the preceding information.

## LITERATURE REVIEW

### The Impact of Giving Effleurage Massage to Pregnant Women



Following the midwifery profession's code of ethics, midwives in Indonesia initiated the development of complementary therapy advances. Effleurage massage is a common supplementary therapy used to decrease back pain during pregnancy. Previous studies that support this include research conducted by Deghan et al. (2020) based on this study, which showed significant results on Effleurage massage on Mrs W in overcoming back pain during pregnancy in the third trimester, which decreased by 3 points after massage for seven consecutive days carried out by the researcher and Mrs W. According to Ahmed et al. (2021) in their research states that pregnant women will experience back pain during pregnancy due to several factors, namely weight gain during pregnancy, changes in body posture due to gravity, resulting in pressure on the nerves. The touch given during effleurage massage causes the process of inhibiting the passage of pain impulses.

In multigravida, the changes that occur during pregnancy do not begin in their entirety until after pregnancy and childbirth have ended. Some of the alterations that occur, such as the formation of striae gravidarum, are permanent. Similarly, abdominal muscles that were stretched during a prior pregnancy cannot recuperate. This is confirmed by research conducted by Zuidah (2022), which indicates that the occurrence of back discomfort in third-trimester pregnant women is proportional. Weak abdominal muscles can result in a woman's inability to hold her enlarged uterus, which leads the uterus to relax and the back to arch even further inward.

After being given an effleurage massage, pregnant women's average back pain scale is 2.6, with a standard deviation of 1.39. The results of this study indicate that the average back scale of the third trimester pregnant women before effleurage massage therapy is lower than before being given effleurage massage.

This happens because the touch given during effleurage massage causes the process of inhibiting pain impulses.

Stimulation of the fibre during Effleurage massage increases the activity of the gelatinous substance, resulting in the closure of the door so that T cell activity is inhibited and the supply of pain impulses is also inhibited. This pain can be stopped by stimulating the A-delta fibres, which closes the gate and prevents pain stimuli from reaching the cerebral cortex. As a result, recipients of effleurage massage notice a reduction in back pain and a heightened sense of relaxation (Venet al., 2021).

In a study conducted by Genik et al. (2020) at Maternity Hospital Semarang, which took 40 respondents by collecting pre and post-experimental data, the average was on a pain scale of 7 before the massage was performed. After the massage, the pain scale was at number 3. The study was conducted by Baljon et al. (2020) the back was carried out with the effleurage technique on 15 respondents showing an average decrease in back pain with an average scale of 2.3. Based on the results of the statistical pair t-test,  $p\text{-value} = 0.000 (<0.05)$ , which means that there is an effect of massage on the lower back of pregnant women in the third trimester.

### Effect of Effleurage Massage on Back Pain in Pregnant Women

During pregnancy, pregnant women experience physical and psychological changes that can cause discomfort, particularly in the third trimester, insomnia, frequent urination, pressure and discomfort in the perineum, low back pain (LBP) or low back pain (LBP), constipation, varicose veins, fatigue, cramps, and foot and ankle oedema.

Approximately 80% of pregnant women will have back pain. As much as 70 percent of back pain during pregnancy is caused by changes in the spinal muscles. Without strong back muscles, injuries to the ligaments may develop, resulting in a

worsening of posture; the remaining 30% of back discomfort during pregnancy can be attributed to preexisting spine abnormalities.

Back pain that is not treated immediately can result in chronic back pain, increasing the likelihood of postpartum back pain and chronic back pain that is more difficult to treat or cure. Effleurage massage is a type of massage in which the palms of the hands continually apply soft pressure in a circular motion to the surface of the body. This massage attempts to improve blood flow, apply pressure, warm abdominal muscles, and promote physical and mental relaxation.

Massage is a non-pharmaceutical technique that applies manual pressure to soft tissues, often muscles, tendons, and ligaments, without producing a shift/change in joint position, in order to alleviate pain, induce relaxation, and improve circulation. Several massage methods can stimulate large-diameter nerves, thereby reducing pain, including Effleurage, plunging back, firm counter-pressure, and abdominal lifting. Based on this description, a hypothesis can be drawn as follows:

H1: There is a positive and significant effect of massage by the husband on the level of pain during the first active phase of the Maternity Clinic at the Sifra Langowan Maternity Clinic

HO: There is no positive and significant effect of massage affecting my husband on pain level during the first active phase of Maternity Clinic at Sifra Langowan Maternity Clinic

## **METHOD**

This research is a pre-experimental one-group pre-post-test design research conducted from March to July 2021. This research was conducted at the SifraLangowan Maternity Clinic. The research design used in this study is described based on the scope of inferential research" the place of research includes field research, the time of data collection

includes the type of observational research, the method of data collection includes direct observation research, whether there is treatment including and based on the data source this research uses primary data. The form of this design is as follows:

Respondents in this study were some women who gave birth at the Sifra Langowan Maternity Clinic, Minahasa Regency, totalling 30 mothers who gave birth in the first active phase, which Effleurage Massage carried out by their husbands with Respondents Criteria. 6 cm, Mother gave birth without complications. The exclusion criteria in this study are

Mother with SC. The type of sampling in this research is Non-Probability Sampling, while the technique used in this research is the purposive sampling technique. The statistical test in this study uses computerized analysis with the Wilcoxon signed-rank test.

## **RESULTS AND DISCUSSION**

Back pain is one of the most prevalent discomforts experienced by pregnant women throughout the first three trimesters. Back pain that occurs in the first to third trimester of pregnancy coincides with the enlargement of the uterus and the growth of the fetus. As a result of the body's center of gravity shifting forward during pregnancy, pregnant women must modify their position to maintain balance. Additionally, the bottom becomes more curled (lordosis), and the spinal muscles contract.

Massage therapy is one of the non-pharmaceutical treatments for pregnant women's back pain; massage reduces muscle tension and pain, increases mobility, and improves blood circulation. The effleurage massage technique consists of continuous long, gentle strokes that provide a calming effect. Muscle relaxation caused by effleurage massage

might boost the production of endorphins in the descending control system, resulting in increased comfort. The characteristics of

this study's respondents are shown in the table below:

**Table 1.** Characteristics of research respondents

Characteristics	Frequency	Percentage (%)
Old	< 20 Years Old	2
	20-35 Years Old	26
	>35 Years Old	2
Education	Elementary	2
	Middle and High School	24
	Collage	4
	Housewife	25
Work	Private	1
	Civil servant	2
	Self-employed	1
	Student	1
Gravity	Primizraida	13
	Multigravida	15
	Grandemultizraida	2
Lifting Heavy Weights	Once	12
	Not yet	18
Bent Over	Once	22
	Not yet	8
Pain Level Before Effleurage	No pain	0
	No pain	1
	Moderate pain	4
Massage	Severe Pain	13
	Burdensome pain	12
Pain Heavy	Once	0
	Not Yet	30

Source: data proceed

Based on table 1, it can be interpreted that almost all of them are 26 mothers (86.7%) aged 20-35 years; most of the respondents, namely 24 mothers (80%), have secondary education, and almost all of them are 24 mothers (80%) as a housewife, almost all of them are 25 mothers (83.3%) as a housewife, most of the 15 mothers (50%) are multigravida mothers, most of the 18 mothers (68.75 %) have never lifted heavy weights, almost all of the 22 mothers (73, 3%) never bent over, all mothers (100%) have never done effleurage massage, most of the 13 mothers (43.33%) experienced pain

heavily. Most mothers, 12 (40%), experienced pain High and Medium.

The results showed that most of the respondent's working status mainly was working; this percentage showed that primigravida mothers who were about to give birth had activities by working mothers did a lot of work-related activities, so they paid less attention to preparation for childbirth. This follows the theory according to Fogarty et al. (2020); many mothers work to earn a living for their interests and their families. The work factor plays a role in the emergence of a problem in preparation for childbirth, where working conditions stand out as a

factor affecting preparation for childbirth because of the time involved, mothers who work outside the home have made preparations for childbirth even though their preparations are sometimes not appropriate.

In terms of education level, respondents are still minimally educated in tertiary institutions; the most education owned by respondents is middle school and high school levels and includes fulfilling the compulsory education set by the government through the 2007 education ministerial regulation, which is 12 years compulsory education. Education is the process of transforming the attitudes and behaviors of an individual or group into those of mature humans through teaching and training; moms with low levels of education prefer to face childbirth as is. Knowledgeable mothers typically learn about childbirth, how to deal with childbirth, and delivery preparation. According to Budiani et al. (2021), the higher a person's level of education, the greater their level of knowledge.

Prior to receiving effleurage massage, the majority of primigravida moms in the first active phase with a pain scale of at least 13 for severe pain were found to be in the majority (43.3 percent). Rohmi Handayani supported the results of this study with the result that before being given an effleurage massage, the majority of the pain experienced by respondents was severe (94.1 %). However, respondents with multigravida have the highest number of 15 people or 50% of research respondents.

At the time of the research, it was found that the primigravida mother stated that she could not stand the pain that was felt, especially in the first stage. The mother felt pain in the abdomen, waist, back and radiating to the spine. This follows the theory of Yunitasari et al. (2018), namely, the cause of pain in labour in the first stage, visceral pain, which is slow and somewhat painful due to uterine contractions and cervical opening. The

pain starts as a slight stabbing, reaches a peak, disappears entirely as required by sympathetic afferent fibres, and is transmitted to the spinal cord in the T10-L1 segment (thoracic 10-lumbar 1) via the delta nerve fibres and originates from the lateral wall and uterine fundus.

Primigravida mothers experience more prolonged labor of 12 hours, so they feel tired, causing increased pain. This follows the theory according to Ainur et al. (2020). Namely, mothers who gave birth for the first time (primigravida) experienced more prolonged labor because in the period I, the ripening and opening of the cervix (effacement) in primigravida was longer, so the latent phase of cervical ripening and softening required a more extended time because in primigravida it occurred effacement of the cervix before dilatation occurs and the internal os opens before the external os.

According to the researcher's analysis, the majority of respondents experienced severe pain during the first stage of the active phase; therefore, researchers were interested in providing non-pharmacological therapy, specifically effleurage massage on the abdomen, to alleviate labor pain during the first stage of the active phase. According to Elgin et al. (2021), this is backed by the hypothesis that massage can alleviate and relax the tension that develops throughout pregnancy and labor. A neck, shoulder, back, leg, and hand massage can be enjoyable. During contractions, stroking the abdomen gently will also provide relief.

According to the findings of the study, the majority of respondents reported moderate pain, namely four people (13.3%), and the most severe pain, namely thirteen people (43.33%), therefore there was a reduction in pain after receiving an effleurage massage. In accordance with the idea proposed by Ristanti and Zuwariah (2020), abdominal effleurage massage can alleviate pain by stimulating tactile fibres in the skin, hence inhibiting pain signals.



Utilizing this to stimulate the skin As stated, effleurage produces messages that are delivered through A-fibres, fibres that transfer pain swiftly, resulting in a closed gate so that the cerebral cortex does not receive pain signals and the degree of pain changes/decreases.

Respondents who had effleurage massage appeared to have greater self-control, were more relaxed, and appeared to be more at ease. This is corroborated by studies conducted by Mualimah et al. (2020), which indicates that the pain would decrease following a massage because the pain fibres that convey pain stimulation to the brain are reduced in size. The sensation moves more slowly than large fibres, and it runs faster. Touch and pain are activated, and the sense of touch travels to the brain, where it closes the brain's pain gates and reduces the severity of pain in the brain. Massage is a diversion that can stimulate the production of

endorphins in the descending control system, hence increasing the patient's level of comfort

### Bivariate Analysis of the Frequency of Pain Levels Before and After Effleurage Massage

Sifra Langowan Maternity Clinic, Minahasa Regency

Bivariate analysis is used as a single statistical analysis to determine between two sets of values, namely variables X and Y. The results obtained are stored in a data table with two columns. In its use, bivariate analysis is more profound than univariate analysis because if the data set contains two research variables and the researcher has the aim of making comparisons between the two data sets, then bivariate analysis can be more appropriate. The results of the bivariate analysis test in this study are presented in the following table:

Table 2. Bivariate analysis results

	N	Mean	Std. Deviation	T	P
Pre Test	30	4.2000	.80516	13.706	0,000
Post Test	30	2.6333	.99943		

Based on table 10, it can be concluded that the Wilcoxon test yielded a p-value of  $0.000 = 0.05$ , thereby rejecting the null hypothesis ( $H_0$ ) and accepting the alternative ( $H_1$ ), indicating that effleurage massage by the husband has an effect on the level of pain during the first active phase of the Maternity Clinic in Sifra Langowan Maternity Clinic, Minahasa Regency, 2021.

Before the effleurage massage, the average level of labor pain was 4.20 (severe pain), and after the effleurage massage, the average level of labor pain was 2.64 (moderate discomfort) (moderate pain). The p-value is 0.000, indicating that it is less than 0.05 (0.000 0.05). These results demonstrate that performing effleurage massage on primigravida morns during active phase I decreases labor pain; as seen in the post-test results, the amount of labor

pain has decreased in comparison to the pre-test results. After the effleurage massage was performed, there was a significant reduction in the assessment value, indicating a reduction in labor pain. This difference in the mean demonstrates the reduction in labor pain (3.78 to 2.96). Venita Nita A (2014) found that massage effleurage has an effect on labor pain in parturient mothers in the first stage of the active phase at the Sinta Mother and Child Hospital in Bandar Lampung, Indonesia, in 2014, with a p-value of 0.000.

In accordance with the idea, this study demonstrates that massage or abdominal massage (Effleurage) is an excellent method of pain relief during childbirth According to Mollaelahi and Shahali (2022), this is consistent with the hypothesis that effleurage massage during childbirth is performed with gentle and

light fingertips. Try to avoid lifting the fingertips off the skin's surface while doing mild, non-forceful strokes. Skin stimulation with the effleurage technique produces impulses that are sent through large nerve fibres on the surface of the skin; these large nerve fibres will close the gate so that the brain does not receive pain messages because it has been blocked; as a result, the perception of pain will change in addition to relieving pain. Massage will stimulate the contraction of the uterine muscles.

According to the investigation of the researcher, effleurage massage lowers labor pain in the initial stage of the active phase in primigravida women. However, according to the results of the study, effleurage massage can affect the decrease of labor pain; it was also shown that respondents had no effect on the degree of pain after receiving effleurage massage; this is due to various perception or tolerance factors for pain. It is possible for mothers in pain who do not believe they have control over their discomfort to raise their anxiety and fear, causing them to be rigid and anxious during contractions; this can result in the inability to do an effleurage massage. However, this approach is highly effective, has no adverse effects, and can alleviate labor pain in first-time mothers during active phase I contractions.

## DISCUSSION

### Back Pain in Pregnant Women Before Effleurage Massage

Table 5.8 shows that back pain before the effleurage massage was performed on the 30 respondents, most (56.25%) experienced severe pain before the effleurage massage was performed. Labor pain is caused by two things: uterine contractions, cervical dilatation, effacement and stretching of the cervix. The hallmark of labor pain in the first stage is that it gets stronger and lasts longer. True labor contractions will be more muscular, longer and closer in time (Hall et al., 2020).

Most deliveries (90%) are accompanied by pain. At the same time, pain in labor is a physiological process. Factors that affect labor pain include psychological and physiological factors. The physiological factor in question is contraction. This muscle movement causes pain because the uterine muscles lengthen and then shorten at that time. The cervix will also soften, thin and flatten, then pulled. That is when the fetal head presses the cervix and opens it. So contractions are an attempt to open the birth canal. The psychological factor in question is excessive fear and anxiety that will affect this pain. Every mother has her version of pain during labor. This is because everyone's pain threshold is different. These various responses are a protective mechanism and the perceived pain (Thomas, 2019).

According to Williams et al. (2019), pain fibers deliver a lesser pain input to the brain. The sensation travels more slowly than broad touch threads, but it runs more quickly. When touch and pain are activated simultaneously, the touch sensation travels to the brain, closes the brain's gate, and reduces the brain's pain intensity. Massage has a distraction that can stimulate the production of endorphins in the descending control system, resulting in increased muscular relaxation and patient comfort.

At the time of the research, pregnant women had never had effleurage massage (100 percent), so it could not help excrete the body's metabolic products through the lymphatic and circulatory system and could increase fatigue and make the motherless energetic, a circulatory system that is not smooth can cause aggravates the work of the heart, the workload of the heart, muscle discomfort, such as cramps, muscle tension, muscle stiffness, which pregnant women often feel.

The study found that 13 (433%) primigravida could not stand the pain they felt, especially in the first stage. The mother felt pain in the abdomen, waist,

back and radiating to the spine. This follows the theory of Moradi et al. (2020), which is that the cause of pain in labor in the first stage; the pain is visceral. Visceral pain is slow and slightly painful due to uterine contractions and cervical opening. The pain begins as a slight stabbing, then reaches a peak, then disappears entirely as required by sympathetic afferent fibres and is transmitted to the spinal cord in the T10-L1 segment (thoracic ten lumbar 1) via the delta nerve fibres and originates from the lateral wall and uterine fundus (Haseli et al., 2018).

In the researcher's opinion, most of the pain felt by pregnant women in the first active phase here is due to contractions that are getting more frequent, and cervical dilatation is increasing. In addition, in dealing with childbirth, mothers also feel anxious and afraid, which can be seen from the facial expressions when the researchers make observations. Feelings of anxiety and fear can also affect the increase in pain in the first stage of labor in the active phase.

#### Back Pain in Pregnant Women After Effleurage Massage

Based on the research table, it can be seen that 12 (40%) mothers experienced a decrease in pain to mild and moderate levels. After an effleurage massage on the abdomen, it was found that most of the research samples experienced a decrease in pain intensity. This decrease occurs because the administration of effleurage massage on the abdomen stimulates tactile fibres in the skin so that pain signals can be inhibited. Stimulating the skin with these effleurages produces messages sent through the brain's nerve fibres. These fibres transmit pain rapidly, resulting in a closed gate so that the cerebral cortex does not receive pain signals.

Research respondents' responses seemed to be able to control themselves, were calmer, and looked more comfortable when doing effleurage massage. Gate Control Theory supports this in Momeni et

al. (2014), namely, the pain will decrease after the massage is done because the pain fibres that carry pain stimulation to the brain are smaller. The sensation travels slower than broad fibres, and the sensation runs faster. Touch and pain are stimulated, and the intensity of pain changes/reduces (Rahnawati et al., 2020). Research respondents' responses seemed to be able to control themselves, were calmer, and looked more comfortable when doing effleurage massage.

Gate Control Theory supports this in Nuampa & Payakkaraung (2021); the pain will decrease after the massage is done because the pain fibres that carry pain stimulation to the brain are smaller, and the sensation travels slower than broad fibres, and the sensation runs faster. Touch and pain are stimulated, and the touch sensation travels to the brain, closes the brain gate, and limits the intensity of pain in the brain.

By observing directly, namely paying attention to the mother's facial expressions and how the mother's attitude responds to the feeling of pain felt during the first stage of the active phase. The husband gave massage techniques to the mother; after that, the results of the mother, who initially experienced severe pain, became reduced. This is due to the effect of giving the effleurage massage technique to the mother in the first stage of the active phase. Given this technique by providing stimulation to the skin on the back of the mother in the active phase I by doing a stroke using the palm in a circular motion during uterine contractions (His), the pain felt by the mother is reduced.

#### The Effect of Effleurage Massage by Husband on Mother's Pain Level Maternity Stage I Active Phase

The Wilcoxon test revealed that 30 respondents had a decrease in pain with a p-value of 0.000 0.05, indicating that Effleurage massage by husbands had an influence on the level of pain during the first stage of the active phase of labor.

In accordance with Yuliatun's (2018) idea, effleurage massage during labor is performed with delicate and light fingertips. Try to avoid lifting the fingertips off the skin's surface while doing mild, non-forceful strokes. Skin stimulation with the effleurage technique produces impulses that are sent through large nerve fibres on the surface of the skin; these large nerve fibres will close the gate so that the brain does not receive pain messages because it has been blocked; as a result, the perception of pain will change in addition to relieving pain. Massage will stimulate the contraction of the uterine muscles.

Pain fibres conveying pain stimuli to the brain are smaller than broad tactile filaments, and the sensation travels more slowly. When touch and pain are activated simultaneously, the touch sensation travels to the brain, closes the brain's gates, and reduces the brain's pain intensity. Massage has a distraction that can stimulate the production of endorphins in the descending control system, resulting in increased muscular relaxation and patient comfort (Wen et al., 2021).

Being given a massage technique means that there is an effect on reducing labor pain. Which massage technique can be given to pregnant women in the active phase when there are contractions where the duration of massage in this study was given every 2 to 3 minutes and lasted for 50-60 seconds. For 30 minutes. From 4 cm cervical dilation to 10 cm cervical dilation. Here, the researcher observes directly every time there is a contraction by giving massage techniques to the mother in the first stage of the active phase.

Research conducted by Fardin et al. (2020) at Dr M. Haulussy Hospital Ambon shows that effleurage massage can be used as first aid for labor pain, especially for inpartu women in the first stage of physiology in reducing pain. The research of Oktarini et al. (2024), titled The effectiveness of the effleurage massage technique on reducing pain

intensity in the active phase of normal labor in the maternity wards of Majalengka Hospital and Cideres Hospital, demonstrated that the effleurage massage technique had a positive effect on reducing the intensity of active phase pain during standard delivery.

The p-value for the efficacy of massage effleurage on labor pain in active phase I antepartum morns at the Sinta Mother and Child Hospital in Bandar Lampung was 0.000 in another study conducted by Aryanti (2014). According to the researcher's analysis, effleurage massage has an effect on reducing the level of labor pain in the first stage of the active phase, and according to the findings of the study, effleurage massage can affect the reduction of labor pain levels, this method is very effective and has no side effects, and it can reduce labor pain in the second stage of labor one active phase during contractions. Based on table 9, it can be interpreted to experience mild and moderate pain levels (40%) after an effleurage massage is done.

1

## CONCLUSION

From the results of the study, it was found that before being given effleurage massage by the husband on the level of pain in the mother during childbirth, during the active phase at the Sifra Langowan Maternity Clinic in the Minahasa Regency in 2021, most of them had a severe level of pain. From the study results, Effleurage massage by husbands affects the pain level in mothers in labor during the active phase at the Sifra Langowan Maternity Clinic, Minahasa Regency, in 2021.

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