



ORIGINAL ARTICLE

**EFFECT OF EFFLEURAGE TECHNIQUES TO INTENSITY PAIN ON DELIVERING BABY AT 1<sup>st</sup> PERIOD ACTIVE PHASE OF MOTHERS DELIVERING BABY**

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ABSTRACT	Keywords
<p>The pain of delivering the baby was experienced by most women; this pain is unique and different for every individual. Non-pharmacological pain control becomes cheaper, simple, and effective and without adverse effects, one of which is the technique effleurage. Effleurage of the abdomen is one of the non-pharmacological methods which are usually used in the Lamaze method to reduce pain in normal labor. This research aimed to determine the effect of effleurage technique on active phase of the first stage of labor pain intensity on maternal in private midwife Hj.Ninik Artiningsih., SST.M.Kes Blotto District Mojokerto Regency. The research design was pre-experimental type one group pre-test post-test design. Its population was all women giving birth in BPM Hj.Ninik Artiningsih., SST.M.Kes, SST Blotto district Mojokerto Regency amount 17 people. The sampling technique used consecutive sampling to obtain 15 samples. Data analysis used was Wilcoxon test with a P value &lt;0.05. It means that there was the effect of effleurage technique on active phase of the first stage of labor pain intensity on maternal in private midwife Hj.Ninik Artiningsih., SST.M.Kes Blooto District Mojokerto Regency. Gently cares the abdomen effected in pain that transmitted will be inhibited, it effected in the cerebral cortex does not receive the response message so that the pain decreased pain.</p>	<p>Effleurage Technique, Intensity Pain, Active Phase Pain Intensity, Delivering Baby</p>

**PRELIMINARY**

The pain of delivering baby has been experienced by most women; the pain is unique and different in each. The pain also has certain characteristics that are common or common. Our understanding and response to pain have been shown to be influenced by some factors such as culture, previous

experience, and estimates of the pain (Henderson & Jones, 2006).

Pain control with pharmacology, among others, by providing inhalation analgesia, opioid analgesia, and regional anesthesia (Mander, 2003). Control of non-pharmacological pain becomes cheaper, simpler, effective and without adverse effects,

one of which is with effleurage technique. Effleurage is a massage technique using the palm with a circular motion pattern on the abdomen, waist or thigh. Abdominal effleurage is one of the non-pharmacological methods commonly used in the Lamaze method to reduce pain in normal delivering baby (Yuliatun, 2008). Like what happens in BPM Hj.Ninik Artiningsih where many maternity women feel the pain to shout, most families pay attention to the delicate strokes on the back and abdomen to calm the mother.

The results of Nastiti et al's research in 2016 about the difference of effectiveness of back effleurage technique with counter pressure in decreasing the intensity of pain on delivering baby in Ambarawa General Hospital showed that before intervention, labor pain had the lowest score of 7 and highest 10 with the pain rating scale that was used the numeric rating scale, after intervened with the technique back effleurage lowest score to 3 and the highest score to 8 (Nastiti et al., 2012).

Preliminary study results in BPM Hj.Ninik Artiningsih Blooto district Mojokerto Regency on 8 mothers who gave birth on January 7th - February 12th, 2016 5 people (62,5%) in great pain from opening 5th to cold sweat out and crying, then family doing fine smudging in area back and stomach at the time of his efforts to reduce the pain in the back of the mother, and 3 people (37.5%) also screamed in pain, but the family only calm him with words of encouragement and praise, his reaction 1 person feel calm, and 2 people still screaming in pain.

The pain of delivering a baby is transmitted by sensory or efferent sensory neurons,

visceral pain caused by strain or visceral irritation. The different neurons present it to the sympathetic and parasympathetic nerves. Pain fibers from the skin and viscera run close together within the spinothalamic tract. Therefore, pain from internal organs, such as the uterus, can be felt as if it came from the area of skin supplied by the same spinal cord. Pain from the uterus is felt on the back or in the labia area (Fraser, 2009). Maternal pain produces psychic responses and physical reflexes. Pain on delivering baby provides identifiable symptoms such as the sympathetic nervous system that can occur resulting in changes in blood pressure, pulse, respiration, and skin tone. Expressional attitudes also change including anxiety increase, groaning, crying, hand movements (which indicate pain) and very muscular tension throughout the body (Bobak et al., 2005).

According to Potter (2005), non-pharmacological methods can be done through non-drug activities such as distraction, biofeedback, self-hypnosis, reducing pain perception, and cutaneous stimulation (massage, hot bath, hot or cold compress, transcutaneous electric nerve stimulation ). Massage is to apply pressure to the soft tissues. Usually muscles, tendons or ligaments, without causing movement or alteration of joints to relieve pain, produce relaxation, and improve circulation, one of the massage techniques for reducing pain on delivering a baby is effleurage ) (Mander, 2003).

## RESEARCH PURPOSE

To know effect of effleurage techniques to intensity pain on delivering baby at 1<sup>ST</sup>-period active phase of mothers delivering baby

## METHODOLOGY

In this research, we used analytical pre-experimental research design with one group pretest-post test design approach where in this paradigm there was pretest before being treated so that the treatment result can be known more accurate because it can compare with the condition before being treated. Preliminary study results in BPM Hj.Ninik Artiningsih Blooto district Mojokerto, on 15 April – 15 May 2016. Instrument of the form (check the effleurage technique), and to know the intensity of pain on delivering baby during the active phase 1 (checklist based on Bourbanis scale).

## RESEARCH RESULT

Table 1 Frequency Distribution of Respondents by Maternal Age at BPM Hj.Ninik Artiningsih.,SST.M.Kes,Blooto. District Mojokerto regency on 15 April -15 May 2016

No	Age	Frequency	Percentage (%)
1	Teenage (17-25 years old)	6	40
2	Adult (26-35 years old)	9	60
	Amount	15	100

The table above showed that the age of respondents mostly in early adulthood is as many as 9 people (60%).

Table 2 Distribution of Respondent Frequency Based on Maternal Pregnancy At BPM Hj.Ninik Artiningsih.,SST.M.Kes, Blooto

district Mojokerto Regency On 15 April-15 May 2016

No	Pregnancy Go to	Frequency	Percentage (%)
1	1	6	40,0
2	2	3	20,0
3	>2	6	40,0
	Amount	15	100

The table above showed that almost half of the respondents are delivering baby to 1 and 3, i.e., each of 6 people (40%).

Table 3 Distribution of Respondent Frequency Based on Maternity Companion At BPM Hj.Ninik Artiningsih.,SST.M.Kes, Blooto district Mojokerto Regency On 15 April-15 May 2016

No	Companion	Frequency	Percentage (%)
1	Family	8	53,3
2	Husband	7	46,7
3	Other people	0	0
	Amount	15	100

The table above shows that most respondents were accompanied by family, that is as many as 8 people (53.3%).

Table 4 Distribution of Respondent Frequency Based on Maternal Education At BPM Hj.Ninik Artiningsih.,SST.M.Kes, Blooto district Mojokerto Regency On 15 April-15 May 2016

No	Kriteria Pendidikan	Frequency	Percentage (%)
1	SD/ sederajat	0	0

2	SMP/ sederajat	2	13,3
3	SMA/ sederajat	12	80,0
4	Perguruan Tinggi	1	6,7
Amount		15	100

The table above showed that almost all respondents are educated SMA / equal, as many as 12 people (80%).

Table 5 Distribution of Respondent Frequency Based on Pain Intensity Before And After Intervention With Effleurage Technique at BPM Hj.Ninik Artiningsih.,SST.M.Kes, Blooto district Mojokerto Regency on 15 April-15 May 2016

No	Intensity of Pain on delivering baby	Before	After		Percentage (%)
		Frequency	Percentage (%)	Frequency	
1	No pain	0	0	0	0
2	Mild pain	0	0	0	0
3	Moderate pain	0	0	8	53,3
4	Heavy pain	8	53,3	7	46,7
5	Very severe pain	7	46,7	0	0
Amount		15	100	15	100
$p = 0,000 < \alpha = 0,05$					

The table above showed that there is a significant change between before and after intervention with effleurage technique. Wilcoxon test results show that  $p = 0.000 < \alpha = 0,05$ , so  $H_0$  is rejected, meaning there is effect of effleurage technique to the intensity of pain on delivering baby in the first stage of active phase in the mother of birth at BPM Hj.Ninik Artiningsih.,SST.M.Kes, Blooto district Mojokerto Regency.

## DISCUSSION

### Pain Intensity Before Given Effleurage Technique

The results showed that most of the intensity of pain before intervention was severe pain. Maternal pain produces psychic responses and physical reflexes. Pain on SS delivering baby provides identifiable symptoms such as the sympathetic nervous system that can occur resulting in changes in blood pressure, pulse, respiration, and skin tone. Expressional attitudes also change including anxiety increase, groaning, crying, hand movements (which indicate pain) and very muscular tension throughout the body (Bobak et al., 2005). One's response to pain is also influenced by past experiences, anxiety, culture, age, meaning of pain, coping style, family and social support (Potter & Perry, 2005).

This is what causes the intensity of pain felt by each mother of different maternity.

The results showed that the age of respondents was mostly early adulthood. Age is an important variable that affects pain especially because the way of responding to pain may be different, the perception of pain may be reduced, except in healthy elderly it may not change (Potter & Perry, 2005). The brain degenerates with the development of one's age so that the elderly have a lower pain threshold and more decreased pain sensation (Yuliatur, 2008).

The results showed that the age distribution was evenly distributed at the optimal age for labor. However, the pain response in maternal mothers with a younger age, has a higher pain response, while the older have a lower response, this is because at a younger age all the sensory nerves conducting pain were still working properly and optimally so that

perceived pain on delivering baby also exceeds the other, while the older mother has experienced a decrease in sensory nerve delivery work so that the pain response is also lower, the intensity of pain felt by the mother was not as heavy as felt in the mother at a younger age.

The results show that almost half of the respondents were on delivering baby to 1 and 3. The previous experience does not necessarily mean that the individual will receive pain easily in the future. If individuals have long experienced a series of episodes of pain without ever recovering or suffering severe pain, anxiety will appear. Conversely, if the individual experiences pain with the same type over and over again, but the pain is successfully removed, it is easier for the individual to interpret the pain sensation (Potter & Perry, 2005).

Mothers who have delivered baby will tend to have lower pain intensity than primiparous mothers, this is because they were the first time to feel pain on delivering baby, whereas multiparous mother will tend to higher threshold pain because it had never felt the same pain before and has managed to pass it, so there is a belief in him that the pain is about to end. Thus the mother's endurance to pain is higher than primipara.

The results showed that most of the respondents were accompanied by the family and all were accompanied by the nearest person. Another factor that also affects the response to pain is the presence of the nearest person. People in pain often rely on families to support, help or protect. The absence of family or close friends may make the pain

progressively increasing (Potter & Perry, 2005).

This is not always the case for all pregnant women, on the contrary, accompanied by the family can make respondents tend to be "spoiled" and want to be noticed especially in young primipara mothers. With high pain responses and apparent pain can make them more appreciated and cared for by the family. However, in some respondents, the presence of parents and husbands gave their own strength to fight for the process of delivering baby, so they will try to strengthen themselves feel the pain labor is so great.

### **Pain Intensity After Given Effleurage Technique**

The results showed that most of the intensity of pain after intervention was moderate pain. Pain can cause a person to lose control of the environment or the outcome of events, so coping forces affect an individual's ability to cope with pain. Clients often find ways to develop coping with the physical and psychological effects of pain. Coping resources such as communicating with support families (Potter & Perry, 2005).

After intervention, the mother experienced a decrease in pain intensity because during the intervention process, the family also always invite mother to communicate by giving spirit, praise, so that mother feel more appreciated and calm. This calmness will reduce the anxiety of the mother that can trigger the pain, so the pain will be reduced. The effleurage technique of giving delicate strokes in the mother's abdomen will make the mother feel comfortable because with the massage many receptor pain is obstructed to convey the

response to the brain so that the mother can better adapt to the pain.

Some mothers who do not experience changes in the intensity of pain after intervention may be due to uncomfortable feelings of his body touched other people who were not familiar, in this case, researchers, so that massage is done by the mother alone or family. Differences in the strength of this massage can also affect the results of massage so that the mother continues to experience pain despite massage.

### **Effect of Effleurage Effect on Pain Intensity of Kala I Active Phase**

Wilcoxon test results show the result that H<sub>0</sub> rejected, it means there is the effect of effleurage technique to the intensity of pain on delivering a baby in the first stage of active phase in the mother of birth at BPM Hj.Ninik Artiningsih.,SST.M.Kes, Blooto district Mojokerto Regency

Skin stimulation with effleurage technique produces impulses sent through large nerve fibers located on the skin surface; 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. Consequently, the perception of pain will change. In addition, to relieve pain, this technique can also reduce muscle tension and improve blood circulation in areas that feel pain. A gentle sweep on the abdomen causes transmitted pain to be inhibited by closing the pain gate in the gelatinous substance of the cell causing the stimulation of T cells to become weak; the cerebral cortex does not receive the pain message so that the pain response decreases (Mander 2003).

Effleurage technique makes the respondent feel comfortable so as to decrease the intensity of pain on delivering the baby, but the decrease that happened did not drastically disappear altogether because the pain of labor has a very high intensity that can only be reduced but can not be eliminated at all. Respondents who did not experience a decrease in the intensity of pain due to anxiety factors, where anxiety can aggravate the intensity of pain because all mothers who experienced labor would feel anxious, both for their safety as well as their babies, because labor is a process that is at risk of disability and death, people who go through labor will feel anxious, this is what triggers the pain getting worse

## **CONCLUDE AND SUGGESTION**

### **CONCLUDE**

There is the effect of effleurage technique to the intensity of pain on delivering a baby during the active phase I in the maternal phase in BPM Hj.Ninik Artiningsih.,SST.M.Kes, Blooto district Mojokerto Regency. This is due to skin stimulation with effleurage technique to produce 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 is blocked by skin stimulation with this technique. Consequently, the perception of pain will change .

### **SUGGESTION**

#### **For Health Workers**

It is hoped to provide care in the form of massage effleurage techniques to reduce pain on delivering a baby without drugs.



### For Further Researchers

It is expected to be able to make a direct observation, or a researcher himself doing massage effleurage techniques, and also conduct research development in connection with non-pharmacological methods to reduce pain on delivering the baby, so it can be known the most effective to be applied in reducing pain on delivering the baby.

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