

The Effect of Effleurage Massage Technique on Afterpains Pain In Multipara Pubber Women at BPM Devi Setiati Bekasi City 2024

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Input : January 05, 2025
Accepted : February 05, 2025

Revised : January 18, 2025
Published : February 28, 2025

ABSTRACT

Postpartum mothers often experience changes both physiologically and psychologically, one of which is a change in the body's reaction due to uterine contractions called afterpains (meruyan/mules-mules) which lasts 2-14 days after delivery which is often experienced by multiparous parities. causes pain that is sometimes severe enough to require analgesics. To determine the effect of the Effleurage Massage Technique on Affterpains pain in multiparous postpartum mothers at BPM Devi Setiati, Bekasi City in 2024. The research method used in this research is quantitative with a pre-experimental research design with a one group pretest – posttest design approach. The sampling technique used purposive sampling with a total of 30 respondents. The results of research using the Wilcoxon statistical test obtained $p.value = 0.000 < \alpha = 0.05$, meaning that there is an influence of the Effleurage Massage Technique on afterpains in multiparous postpartum mothers. Based on data analysis, it is known that in the Negative Range between the pre-test and post-test pain levels there is a difference in Mean Rank of 15.5 and Sum of Rank of 465.0, so there is an increase from the pre-test results to the post-test value after being carried out Effleurage Massage Technique.

Keywords: *Affterpains, Effleurage Massage, Multiparous Postpartum Mothers.*

INTRODUCTION

Puerperium or called the puerperium is the period after the birth of the placenta and ends when the return of the womb as before pregnancy. This period lasts for 6 weeks, there are several changes in the puerperium, namely physical changes, uterine involution, changes in the mother's body system and psychic changes (Yuliana and Haim, 2020). Usually in the postpartum period will experience follow-up pain or commonly called Afterpains. Afterpains are caused due to the contraction in the continuous relaxation of the uterus. Uterine contractions occur physiologically which triggers pain that can interfere with the comfort of the mother in the puerperium. His royan pain (Afterpain) is a uterine cramp that occurs intermittently for 2 or 3 days after delivery as a result of uterine contractions to return to its original state. This is a common discomfort felt by

mothers after childbirth. After normal delivery, 50% of primiparous mothers and 86% of multiparous mothers experience his royan (afterpain) pain. The process of uterine involution begins immediately after the birth of the placenta, when smooth muscles begin to contract, painful discomfort begins to appear. During pregnancy, cell hypertrophy occurs, which causes the uterus to enlarge, as the number of pregnancies (parity) increases, causing greater uterine involution. In addition, there are significant differences in the pattern of involution of the mother's uterus with the mode of delivery, as evidenced by ultrasound studies. Thus, it can be concluded that his royan (afterpain) pain also varies with the mode of delivery and the number of deliveries (Smitha, 2016). To relieve pain that can cause side effects from the use of these drugs, in non-pharmacological therapy, clients are usually given therapy such as massage. This massage therapy can minimize and even suppress pain with minimal side effects and even no side effects, one of which is by using the effleurage massage technique (Adriani.DP, 2018). In breastfeeding women, afterpains are caused due to the baby's suction which can stimulate oxytocin production. In addition to stimulating the ejection of breast milk, oxytocin production also causes uterine contractions (Delima et al., 2016).

Effleurage is a form of massage using the palms of the hands that apply gentle pressure to the surface of the body in a circular direction repeatedly. This technique aims to improve blood circulation, put pressure, warm up the abdominal muscles, as well as promote physical and mental relaxation. The main action of effleurage massage is an application of Gate Control theory that can "close the gate " to inhibit the passage of pain stimuli at higher centers in the central nervous system (Parulian. T. S, et al. 2014). Stimulation massage effleurage can stimulate the body to release endorphin compounds which are natural pain relievers and stimulate nerve fibers that close the gate so that the transmission of pain impulses to the spinal cord and brain is inhibited. In addition, the gate control theory says that effleurage massage activates a greater and faster transmission of a - beta sensory nerve fibers. This process decreases the transmission of pain through small diameter delta a fibers (Fatmawati, 2017).

Effleurage is a massage technique that is safe, easy to perform, does not require many tools, does not cost money, has no side effects, and can be done alone or with the help of others (Marini, 2018). Commonly used massage techniques include effleurage or rubbing, petrisage or massage, shaking or shaking, tapotement or punch, friction or scouring, vibration or vibration, stroking or massaging, and skin rolling or folding and shifting the skin (Wiyoto, B. T., 2011). According to Alimul (2009), massage procedure with effleurage technique is effective for 10 minutes to reduce pain. Effleurage Massage is performed 1 time per day for 5-10 minutes for 3 days in a row.

Based on the results of a preliminary study conducted in February 2019 at Tpmmb Muarofah on 5 postpartum mothers, it was explained that all mothers experienced pain on the first day. Two mothers experienced pain at 3-4 hours postpartum, and three mothers at 1-2 hours postpartum. The nature of the pain on the first day is heartburn in the lower abdomen on a scale of 4-5 (moderate

pain). Uterine contraction pain can be felt when the mother is sitting or doing activities. Mom feels pain for 1-5 minutes. Efforts made by mothers to reduce pain are deep breathing techniques, distraction by walking, activity slowly, and staying for a moment. The results of interviews conducted to 2 midwives at TpmB Muarofah said that the management of pain in postpartum mothers is by mobilization (right and left tilt) and teaching relaxation techniques. Therefore, based on the above background, the researchers were interested in researching the effect of Effleurage Massage on Afterpain pain in multiparous postpartum mothers at BPM Devi Setiati Bekasi city in 2024.

METODOLOGI

According Notoatmodjo, S. (2012), research design is a research design that will be implemented. This study is a quantitative research. In this study, researchers used a Pre-Experiment research design with a one-Group Pretest-Posttest Design approach that aims to test hypotheses through an intervention in a sample group and does not have a control group (Sugiyono, 2016:74). This method was used to determine the effect of effleurage massage technique on afterpains pain in multiparous puerperal mothers.

Table 1 Research Design One-Group Pretest-Posttest Design

<i>Pre-test</i>	<i>Intervensi</i>	<i>Post-test</i>
O1 -----	X -----	O2

(Source: Sugiyono, 2016. Quantitative, Qualitative, and R&D research methods. Bandung: Alfabeta.)

Description:

O1: Pre-test value (before being given the effleurage massage technique)

O2: Post-test value (after effleurage massage)

X: treatment or treatment given (effleurage massage)

In this study there are two variables, the independent variable (effleurage massage technique) which is the cause or risk variable and the dependent variable (pain afterpains) which is the effect or effect variable. (Notoatmodjo, S., 2012).

This study took a population of all multiparous postpartum mothers who experienced afterpains pain in Devi Setiati independent practice midwives in Bekasi city in 2024. The sample consisted of 30 respondents obtained through the total sampling method. This sampling technique considers the inclusion and exclusion criteria, where the inclusion criteria include normal puerperal Mothers Day 1-14, multiparous puerperal mothers, without complications, puerperal mothers with afterpains pain, and willing to be respondents, while the exclusion criteria include puerperal mothers with complications, puerperal mothers with a history of complications, primiparous puerperal mothers, and those who are not willing to be respondents. This research was carried out from June to July 2024 at The Independent Practice midwife Devi Setiati Bekasi city.

RESULT

Univariate Analysis

Univariate analysis in this study was used to determine the frequency and percentage distribution of pain afterpains before and after given effleurage massage performed on 30 respondents. The frequency distribution of pain afterpains before and after the intervention is given can be seen in the table below.

Table 2 frequency distribution of respondents by pain before and after intervention

No	Pain Intensity	N	Persentase (%)
1	Before		
		12	40
	Moderate Pain (4-6)	18	60
2	Severe Pain (7-9)		
	After	22	73,3
	Mild Pain (1-3)	8	26,7
	Moderate Pain (4-6)	30	100

Source : Research Data Processed in 2024

Based on the table above, it can be seen that of the 30 respondents before the intervention, there were 18 respondents experienced severe pain (60%), and 12 respondents experienced moderate pain (40%), while after the intervention, there were 22 respondents experienced mild pain (73.3%), and 8 respondents experienced moderate pain (26.7%).

Normality Test

Normality test is a test conducted to determine a regression model that is the dependent variable, independent variable or both have a normal distribution or not (Sugiyono, 2013). Normality test in this study was conducted using the Shapiro-Wilk test to determine whether the data is normally distributed or not for a sample of <50 respondents. The data tested are data before (pre-test) and after (post-test) given intervention in the form of effleurage massage, can be seen in the table below.

Tabel 3. Normality Test Shapiro Wilk

Kolmogorov-Smirnov				Shapiro-Wilk		
	Statistic	N	ρ .value	Statistic	N	ρ .value
Pre test	0,219	30	0,001	0,872	30	0,002
Post test	0,406	30	0,000	0,674	30	0,000

Source : Research Data Processed in 2024

Based on the table above, the results of the normality test were obtained.value = 0.002 for the data before the given effleurage massage and ρ .value = 0.000 for

data after effleurage massage. Because of the α .value < 0.05 it can be concluded that the distributed data is not normal, so the alternative test used is Wilcoxon.

Bivariate Analysis

Bivariate analysis in this study was conducted to determine the difference between the dependent variable (pain afterpains) and the independent variable (effleurage massage) in multiparous puerperal mothers in BPM Devi Setiati Bekasi city with statistical tests through a computerized program. Because of the normality test results obtained data distributed data is not normal, the statistical test used is Wilcoxon, can be seen in the table below.

Table 4 frequency distribution of pre-Test and Post-Test respondents

		N	Mean Rank	Sum Of Ranks
Post Test - Pre Test	Negative Ranks	30 ^a	15,50	465,00
	Positif Ranks	0 ^b	.00	.00
	Ties	0 ^c		
	Total	30		

Source : Research Data Processed in 2024

Based on the table above, it can be seen that in the Negative Range or difference between pre-test and post-test pain levels there is a difference of Mean Rank 15.5 and Sum of Rank 465.0, there is an increase from pre-test results to post-test values after effleurage massage techniques.

Tabel 5. Uji Statistik Wilcoxon

Statistik Wilcoxon	
	Post Test - Pre Test
z	-4,784 ^b
Asymp. Sig. (2-tailed)	.000
a. Wilcoxon Signed Ranks Test	
b. Based on positive ranks	

Source : Research Data Processed in 2024

Based on Wilcoxon's statistical test, it can be seen that Asymp.Sig (2-Tailed) obtained = 0.000 less than 0.05 means H_0 rejected and H_a accepted, which means there is a significant difference before and after treatment given effleurage massage.

DISCUSSION

Based on the results of interviews and observations conducted using the Numeric Rating Scale (NRS) and check list sheets, the effleurage massage technique has an effect on afterpains pain in multiparous postpartum women. It is known from the results of data analysis that the intensity of pain afterpains before effleurage massage is 0.872 standard deviation with severe pain intensity (7-9) as many as 18 respondents and a decrease in pain intensity after effleurage massage is 0.674 standard deviation with mild pain intensity (1-3) as many as 22 respondents. The results of this data analysis using the Wilcoxon test obtained a

value of p.value Asymp. Sig (2 tailed) value of 0.000 means that the analysis hypothesis is accepted so in this study it can be concluded that the effleurage massage technique affects the level of afterpains pain in multiparous postpartum women at BPM Devi Setiati Bekasi City.

Hadiningsiha and Khotimah, (2022) explain that mothers experience pain after childbirth (afterpains) due to repeated uterine contractions and relaxations that take place in a certain way never stop moving forward. Women with high parity tend to experience this discomfort more often. Afterpains 48.6% were identified in multiparous postpartum women, due to high parity there is a decrease in uterine muscle tone, along with the contractions that appear, according to a study that collected the number of experienced respondents. Therefore at the time of labor the uterus will harden and narrow due to back irritation. The results of research from Siswi Utami et al., (2020), intense pain can affect the increase in heart rate, respiratory system, increase blood pressure and can cause stress to inhibit the release of oxytocin hormone which results in inadequate contractions and disruption of cervical dilatation.

The effleurage technique is a massage technique using the palms of the fingers to form a circular movement pattern at the lower waist. The effleurage technique can reduce the afterpains of postpartum women if done correctly, namely done gently and done for approximately 15 minutes. Postpartum mothers said that the pain was reduced after the massage. The more the frequency of effleurage massage, the more endorphin hormone will be produced by the brain. So as to cause the effect of relaxation. In addition, effleurage massage can reduce swelling in the chronic phase through the mechanism of increasing blood and lymph flow, reducing recovery time by increasing the supply of oxygen and nutrients and increasing the elimination of metabolic waste due to increased blood flow (Sitinjak et al. 2023).

The results of the 1st study on July 8, 2024 Mrs. Ne aged 27 years G2P1A0 postpartum day 7 experienced afterpains before effleurage massage showed a pain scale of 4 (moderate pain) and after effleurage massage showed a pain scale of 1 (mild pain). This can occur because the patient is in a relaxed condition with a comfortable prone position when effleurage massage is performed so that massage can reduce the pain that is being felt by the patient.

The results of the second study on July 8, 2024 Mrs. Mi aged 40 years G5p4A0 in postpartum 4 hours experienced afterpains before effleurage massage showed a pain scale of 9 (severe pain) and after effleurage massage showed a pain scale of 6 (moderate pain). This can occur because the patient has just experienced the labor process and mothers with high parity tend to experience this discomfort more often due to a decrease in jaw muscle tone, along with contractions that appear Hadiningsiha and Khotimah, (2022).

The results of this study are in line with research conducted by Irda et al. (2018) that the results of the Mann-Whitney test of the intervention group sig.0,000 ($p < 0.05$) showed that the intervention group experienced a decrease in pain, so there was a significant difference between the control and intervention

groups in reducing pain in multiparous postpartum women. The results of research conducted by Sitinjak et al., (2023) that there is a comparative effect of effleurage massage technique on reducing pain scale in multiparous postpartum women with a significant value of $p\ 0.005 < 0.05$ (control group) and $p\ 0.00 < 0.05$ or $p < \alpha$ (intervention group).

The results of this study researchers assume that the average decrease in pain scale is very effective if done 2-3 times because the endorphin hormone will come out more. Effleurage massage done once still provides a relaxing effect on the patient even though the difference in the value of the decrease is not much. The massage cannot be done just once but must be repeatedly so that the pain felt is reduced even to the point of not feeling pain. Husband support also has an impact on reducing afterpains pain. Husbands play a positive and significant role for psychological well-being in women, it was found that the greater the support, the contribution to improving psychological well-being with high husband support women will feel more accepting of themselves have a life purpose, have the skills to take opportunities that arise, have the desire to develop potential and can build positive relationships with others (Putiyani, 2018).

Research Limitations

The limitations that researchers experience in conducting this study are that for respondents the effleurage massage technique is new knowledge for them, so it is necessary to approach and explain as well as possible so that respondents understand the benefits they get from the effleurage massage technique, want to do it as a non-pharmacological treatment in the management of afterpains pain that mothers feel in the postpartum period without coercion from anyone and no validity test is carried out.

CONCLUSION

Based on the results of the study, it was found that the effleurage massage technique was effective in reducing afterpains pain in multiparous postpartum women. Before this technique was done, many postpartum women experienced severe pain. After the application of the effleurage massage technique, there was a significant improvement in pain reduction, indicating that this technique has a positive influence. Statistical testing also confirmed that the effleurage massage technique had a significant impact on reducing afterpains in multiparous postpartum women.

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