

Effectiveness Of Prenatal Massage On Reducing Physical Complaints In Pregnant Women Trimester III

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ABSTRACT

Prenatal massage is one way to bring out wellness for body and mind in third trimester pregnant women, which can be overcome to overcome the physical problems they experience. The formulation of the problem in this study is the physical complaints experienced by pregnant women in the form of cramps in the legs, edema in the legs, back pain, difficulty sleeping can be resolved with prenatal massage and aims to determine the effectiveness of prenatal massage on physical complaints in third trimester pregnant women at the clinic Pera. The type of research is Quasi Experiment with Non Equivalent Control Group approach. The research sample was 32 pregnant women with third trimester, namely 16 people as the intervention group, 16 people as controls taken with consecutive sampling technique. Univariate analysis, Wilcoxon test and Mann Whitney test. The results of the mean value between the pre-test and post-test measurements of the control group was -0.25; ($p=0.417 > 0.05$). The result of the mean value between the pre-test and post-test measurements of the intervention group was 3.5; ($p=0.000 < \alpha=0.05$). And the results of the difference in the average value of physical complaints in the control group and the intervention group are 3.75; ($p = 0.000 < 0.05$, there is a significant difference in the average value of respondents' physical complaints between the control group and the intervention group.) So the key is that prenatal massage is effective in reducing physical complaints of pregnant women in the third trimester. Physical complaints that are often experienced by pregnant women can be reduced.

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1. Introduction

During pregnancy, there is a higher chance of developing complications which are often referred to as high-risk pregnancies. During pregnancy, pregnant women experience physical and psychological changes that can cause discomfort, especially in the third trimester such as dyspnea, insomnia, gingivitis and epulsion, frequent urination, pressure and discomfort in the perineum, back pain, constipation, varicose veins, fatigue, contractions. Braxton hicks, leg cramps, ankle edema (non-pitting) and mood changes and increased anxiety (Perry, et al., 2013). [1] [2]. Maintenance of the health of pregnant women needs to be carried out during pregnancy care. The results of the research will be undertaken Arum Sariati on "The Effects of Massage Endorphins Massage to Reduced Back Pain Pregnancy Trimester III Regional Health Center Kabuh" indicates that prior to massage nearly half of third trimester pregnant women experience back pain at a scale of 4 (very pain) as much as 45.7% while after massage almost half of pregnant women in the third trimester with a scale of 2 (slightly more painful) as much as 34.3%. [3]

Every pregnancy is a unique experience for a woman, and every pregnancy experienced by a woman will definitely be different from the previous pregnancy. Most of the discomfort experienced by mothers during pregnancy is related to hormonal changes and physical changes associated with uterine growth. These discomforts include nausea and vomiting, breast changes, back and ligament pain, leg cramps, headaches, fatigue, constipation, and discomfort caused by emotional factors. During pregnancy, women will experience changes both anatomically, physiologically and psychologically, causing discomfort during pregnancy. One of the discomforts that pregnant women often experience is back pain. [4] [5]

The results of a preliminary study conducted at the Pera clinic in February 2021 showed that 4 pregnant women in the third trimester experienced complaints of frequent urination, difficulty sleeping, shortness of breath and back pain. Coupled with leg cramps that are often felt at night. This is a physiological complaint in pregnant women, but the need for handling so that complaints are reduced. Prenatal massage is beneficial for pregnant women to reduce the physical complaints experienced by pregnant women so that the health of the mother and the baby she is carrying remains healthy.

2. Method

This research uses a *quasi-experimental* research with a *non-equivalent control group* approach. The study was conducted from April to July 2021. The sample of the study was 32 pregnant women in the third trimester consisting of 16 people as the intervention group and 16 people as controls who were taken using a *consecutive sampling technique*. The measuring instrument is in the form of a questionnaire sheet with *pre-test* regarding the physical complaints experienced by pregnant women in the third trimester, both the intervention group and the control group. Univariate analysis was carried out with frequency distribution and *Wilcoxon test* and *Mann Whitney test* with $\alpha=0.05$ and 95% CI. [6]

3. Results and Analysis

3.1 Univariate Analysis

TABLE 1.
DISTRIBUTION OF RESPONDENTS CHARACTERISTICS

Characteristics	f	%
Education		
Tall	20	62.5
Low	12	65.6
Work		
Does not work	11	34.4
Work	21	65.6
Amount	32	100

Based on the table above, the majority of respondents are highly educated as many as 20 respondents (62.5%) and the majority of the most occupations are working as many as 21 respondents (65.6%).

TABLE 2.
DISTRIBUTION OF RESPONDENTS' PHYSICAL COMPLAINTS PRE-TEST POST-TEST INTERVENTION GROUP

Physical Complaints	Pre-test		Post-test	
	f	%	f	%
Upper and lower back pain	16	100	12	75
Frequent urination	15	93.75	15	93.75
Constipation/constipation	10	62.5	6	37.5
Cramps in the legs	5	31.25	3	18.75
Bloated	11	68.75	1	6.25
Swelling of the legs	7	43.75	7	43.75
Hard to sleep	15	93.75	10	62.5
Numbness in fingers and toes	15	93.75	4	25
Out of breath	14	87.5	4	25
Dizzy	4	25	2	12.5
Pain or cramps in the muscles	9	56.25	1	6.25

Based on the table above, it shows that of the 10 physical complaints that were assessed, the respondents who felt the most changes in physical complaints after *prenatal massage* were abdominal bloating, muscle pain or cramps, dizziness and leg cramps. While the complaints that still persist are frequent urination and swelling of the legs.

TABLE 3.
VALUE OF RESPONDENTS' PHYSICAL COMPLAINTS PRE-TEST POST-TEST CONTROL GROUP

Complaint Rate	Mean	Median	SD	Min-Mak	95% CI
Pre-test	5.56		1.09	3-7	4.97-6.14
Post-test	5.81		0.65	5-7	5.46-6.16

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Based on the table above, it is found that the average value of respondents' physical complaints by measuring the *pre-test* in the control group is 5.56 with a standard deviation of 1.09. While the physical respondents with *post-test* measurements in the control group obtained 5.81 with a standard deviation of 0.65.

TABLE 4.
VALUE OF RESPONDENTS' PHYSICAL COMPLAINTS *PRE-TEST POST-TEST* INTERVENTION GROUP

Complaint Rate	Mean Median	SD	Min-Mak	95% CI
<i>Pre-test</i>	7.568	1.03	5-9	7.01-8.11
<i>Post-test</i>	4.064	1.06	2-6	3.49-4.62

Based on the table above, it was found that the average value of the respondents' physical complaints in the measurements before *prenatal massage* was obtained was 7,568 with a standard deviation of 1.03. While the average value with the respondent's physical complaints in the measurement after *prenatal massage* was carried out in the intervention group was 4.064 and the standard deviation was 1.06.

3.2 Bivariate Analysis

TABLE 5 .
DIFFERENCES IN PHYSICAL COMPLAINTS *PRE-TEST POST-TEST* CONTROL GROUP

Complaint Rate	n	Mean	SD	Z	p
<i>Pre-test</i>	32	5.56	1.09	-0.81	0.417
<i>Post-test</i>		5.81	0.65		

Based on the table above, it can be seen that the *mean* difference between the *pre-test and post-test* measurements in the control group is 0.8. *Wilcoxon* test results obtained *p* value = 0.417, then *p* value = 0.417 > = 0.05, so the conclusion is that there is no significant difference between the complaints of pregnant women in the before and after measurements in third trimester pregnant women.

TABLE 6.
DIFFERENCES IN PHYSICAL COMPLAINTS *PRE-TEST POST-TEST* INTERVENTION GROUP

Complaint Rate	n	mean	SD	Z	p
<i>Pre-test</i>	32	7.56	1.03	-3.57	0.000
<i>Post-test</i>		4.06	0.06		

Based on the table above, it can be seen that the *mean* difference between the *pre-test and post-test* measurements in the intervention group is 3.5. The results of the *Wilcoxon* test obtained *p* value = 0.000, then *p* value = 0.000 > = 0.05, so the conclusion is that there is a significant difference between the complaints of pregnant women in the before and after measurements in third trimester pregnant women.

TABLE 7.
DIFFERENCES IN PHYSICAL COMPLAINTS *PRE-TEST POST-TEST* CONTROL GROUP AND INTERVENTION GROUP

clogs pok	n	Mean Difference	Z	p
Intervention Control	32	3.75	-4.05	0.0000

Based on the table above, the difference in the average value of physical complaints in the control group and the intervention group is 3.75. The results of the *Mann Whitney* statistical test obtained *p* value = 0.000 (*p* < 0.05). So it can be concluded that there is a significant difference in the *mean* value of respondents' physical complaints between the control group and the intervention group.

4. Discussion

From the results of the study, it was found that the more highly educated, this became the basis for supporting that respondents already knew about *prenatal massage* where respondents had been

exposed to midwifery services and a small proportion only a few respondents did not know about *prenatal massage*.

Respondents who work more than respondents who only work as IRT. This is the basis where the workload obtained while working is also the cause of the more physical complaints during the third trimester of pregnancy. Based on the results of the study, it was found that respondents who experienced physical complaints after *prenatal massage* experienced changes in abdominal bloating, muscle pain or cramps, dizziness, leg cramps and constipation. The occurrence of changes in physical complaints that have been experienced by respondents after being given *prenatal massage* is because the body becomes relaxed and blood flow has been smooth throughout the body of pregnant women. According to Widiastini that Endorphins are natural hormones produced by the human body, so endorphins are the best pain relievers. Endorphins can be produced naturally by doing activities such as meditation, deep breathing, eating spicy foods, or through *acupuncture treatments or chiropractic*. [7] This study is in line with research on the effect of Endorphin Massage on reducing the intensity of back pain in pregnant women. The results of the *Wilcoxon sign rank test* with $\alpha = 0.05$, showing $p = 0.000$ so that $p < 0.05$, which means that there is an effect of Endorphin Massage on decreasing the intensity of back pain in pregnant women. [8]

According to researchers, *prenatal massage* can reduce physical complaints experienced by pregnant women in the third trimester, this is because *prenatal massage* can reduce fatigue and make the body more energetic by removing metabolic products in the body's lymphatics and circulation system. Physical complaints experienced by pregnant women such as flatulence, muscle pain or cramps, dizziness, leg cramps and constipation can be reduced after a *prenatal massage* because it causes circulation or blood flow throughout the body to be smooth and the mother will feel better. In addition, when a *prenatal massage* is carried out, endorphins will be produced which make the mother relax. *Prenatal massage* is a massage performed on pregnant women to facilitate maternal blood circulation and reduce physical complaints that are often experienced by pregnant women. [9] [10]

5. Conclusion

Physical complaints experienced by pregnant women can be reduced after prenatal massage including flatulence, muscle pain or cramps, dizziness, leg cramps and constipation. Then prenatal massage is effective in reducing physical complaints experienced by pregnant women in the third trimester at Pera Clinic. It is hoped that all midwives, especially those who have independent midwifery practices, make prenatal massage one of the services that must be provided to pregnant women.

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