



## The Effectiveness of Loving Massage on Sleep Quality in Third Trimester Pregnant Women at PMB Deliana, Marpoyan Damai District, Pekanbaru City

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**Abstract** - Pregnancy is a period of crisis in a woman's life process. The period when changes occur in all body systems, including cardiovascular, respiratory, hormonal, gastrointestinal, and musculoskeletal systems. Pregnant women during pregnancy experience physical and psychological changes that can cause discomfort from the first to third trimesters, one of which is sleep disturbances. One of the non-pharmacological techniques that can be given to overcome sleep difficulties in pregnant women includes relaxation techniques such as loving massage. The purpose of this study was to determine the effectiveness of loving massage on sleep quality in third trimester pregnant women. The type of research carried out was a Quasi experimental which was carried out on 03-17 October 2020 which was conducted at PMB Deliana Pekanbaru City. The population and samples used were all pregnant women who visited in October 2020. The results obtained a value of  $p = 0.000$ , so it was concluded that there was an effect of Loving Massage on the sleep quality of pregnant women in the third trimester ( $p < 0.000$ ). It is hoped that the next research will be able to carry out different interventions to deal with discomfort in pregnant women.

**Keywords** : *Loving Massage*, Sleep Quality, Trimester III Pregnant Women

### 1. Introduction

Pregnancy is a period of crisis in a woman's life process. The period when changes occur in all body systems, including cardiovascular, respiratory, hormonal, gastrointestinal, and musculoskeletal systems (Delima, 2018). Pregnant women during pregnancy experience physical and psychological changes that can cause discomfort from the 1st to 3rd trimester, the number of changes that occur during pregnancy, for example, by enlarging the uterus, it will affect the fulfillment of sleep rest due to difficulty in determining a comfortable position, besides changes hormone can cause psychological changes in pregnant women, making it difficult to fulfill or maintain sleep (Praningrum & Hidayah, 2018).

Sleep disturbances are common among healthy nulliparous women and will increase significantly during pregnancy, so that poor quality sleep in early and late pregnancy is associated with an increased risk of preterm delivery. Other studies have shown that sleep quality during pregnancy decreases due to increased depression ((Praningrum & Hidayah, 2018) .Pregnant women who have poor sleep quality can lead to several complications in pregnancy, such as in a study conducted by Okun (2011), which states that sleep disturbance that occurs in pregnant women can worsen inflammation of the body can lead to overproduction of cytokines. Cytokines are molecules that are associated with immune cells.

One of the non-pharmacological techniques that can be given to overcome sleep difficulties in pregnant women includes relaxation techniques such as loving massage, yoga, progressive muscle relaxation, massage, music therapy, meditation, swimming, deep breathing techniques and walking. Other alternatives that can be done by placing a pillow on the stomach, legs and back, tilted to the left, consuming a glass of warm milk to help bring sleep, relaxation techniques such as stretching, taking a warm bath or showering before bed (Delima, 2018).

*Loving massage* is one of the holistic therapies that begins with breathing relaxation then praying to God for the well-being of the body, mind and spirit, followed by generating a sincere sense of caring, loving and loving mother massager. Massage techniques are carried out by efflurage, petrissage, accupressure



and love kneading on certain parts of the body to increase circulation and relaxation (Praningrum & Hidayah, 2018).

From the above background, the researchers were interested in conducting a study entitled "The Effectiveness of Loving Massage on Sleep Quality in Third Trimester Pregnant Women at PMB Deliana, Pekanbaru City. "

**2. Table**

This research was conducted on 03-17 October 2020 at PMB Deliana Pekanbaru City. The population in this study were pregnant women at PMB Deliana Pekanbaru City who visited in October 2020. Sampling in this study used non-random sampling techniques with purposive sampling.

Data processing is done by editing, coding, entry and tabulating methods. Univariate analysis is carried out to explain or describe the characteristics of each variable under study (Notoadmojo, 2013). The analysis of this study is to determine the sleep quality score before and after loving massage. To test whether or not the effectiveness of Loving Massage on sleep quality in trimester III pregnant women at PMB Deliana Pekanbaru City. The test used was the Dependent T test with the interpretation of the results if the value of  $p < 0.05$  means that there is an effect of Loving Massage on the quality of sleep for third trimester pregnant women, if  $p > 0.05$  means that there is no effect of Loving Massage on the quality of sleep for third trimester pregnant women.

**a. Univariate Analysis Results**

**Table 1.**

*Distribution of Sleep Quality for Third Trimester of Pregnant Women Before Doing Loving Massage*

Sleep quality	Frequency (N)	Percentage (%)
15	2	5.7
14	2	5.7
13	2	5.7
11	9	25.7
10	7	20.1
9	11	31.4
7	2	5.7
Total	35	100.0

From table 1, it is found that the majority of the sleep quality of pregnant women before the Loving Massage is 9, which is 11 people (31.4%)

**Table 2.**

*Distribution of Sleep Quality for Third Trimester of Pregnant Women after Loving Massage*

Sleep Quality	Frequency (N)	Percentage (%)
7	3	8.5
6	7	24.5
5	10	28.6
4	15	42.9
Total	35	100.0

Based on table 2 above, the majority of the sleep quality of pregnant women after doing Loving Massage is 4, namely 15 people (42.9%)

**b. Bivariate Analysis Results**

**Table 3.**

Paired Samples Statistics

	N	Mean	Std. Deviation	Std.error mean	P.Value
Before given	35	5.63	1,653	0.301	0,000
Once given		4.90	1,567	0.268	

Based on table 3 paired samples statistics, the results show that the average sleep quality in Trimester III pregnant women in the first measurement is 5.63 (poor quality), while the average sleep quality in Trimester III pregnant women in the second measurement is 4.90 (quality good)

In the statistical test, it was found that the value of  $p = 0.000$  so that  $H_0$  was rejected, it was concluded that there was an effect of Loving Massage on the sleep quality of pregnant women in the third trimester ( $p < 0.000$ ).

### 3. Analysis

Analysis of the difference in sleep quality before (Pre-Test) and After (PostTest) doing Loving Massage, it was found that the average sleep quality in third trimester pregnant women in the first measurement was 5.63 (poor quality), while the average sleep quality in the mother Trimester III pregnancy at the second measurement was 4.90 (good quality). In the statistical test, it was found that the value of  $p = 0.000$  so that  $H_0$  was rejected, it was concluded that there was an effect of Loving Massage on the quality of sleep for pregnant women in the third trimester ( $p < 0.000$ ).

This corresponds to research (Sulisdiana, 2017) that loving massage affects the quality of sleep and loving massage is more effective than music therapy from the research results (Dirgahayu, Jamiyanti, & Sadiyah, 2015). Massage techniques are carried out by efflurage, petrissage, accupressure and love kneading on certain parts of the body to increase circulation and relaxation (Prananingrum & Hidayah, 2018).

*Loving massage* is one of the holistic therapies that begins with breathing relaxation then praying to God for the well-being of the body, mind and spirit, followed by generating a sincere sense of caring, loving and loving mother massager. Because Loving Massage will provide a relaxing effect on pregnant women which can affect to increase the sleep duration of pregnant women. Physiological relaxation exercises in Loving Massage will have a relaxing effect involving the parasympathetic nerves in the central nervous system. Where one of the functions of this parasympathetic nerve is to reduce the production of the hormone adrenaline or epinephrine (stress hormone) and increase the secretion of noradrenaline or norepinephrine (relaxing hormone) so that there is a decrease in anxiety and tension in pregnant women which results in pregnant women becoming more relaxed and calm. In addition, Loving Massage will help the mother to relax due to the formation of endorphins which provide a calming effect. Thus, pregnant women can sleep easily with good quality, provided that the Loving Massage is done regularly to get optimal results.

Physiologically, sleep complaints experienced by pregnant women are caused by fetal growth and fetal movement which can suppress the bladder so that it can increase the frequency of urination, heavier body loads so that it can change the structure of the spine so that pregnant women can feel discomfort in the waist area. also in the extremity section where sometimes pregnant women like to experience cramps. This condition can also cause psychological changes in pregnant women, sometimes the physical changes they experience can cause anxiety and worry when facing childbirth, which can sometimes affect the quality of sleep for pregnant women..

Improving the quality of sleep can be done in many ways, including by using pharmacological and non-pharmacological techniques. Pharmacologic method is a commonly administered therapy. But not for pregnant women, because this has the potential to increase the risk to the fetus. Therefore, the choice of using a non-pharmacological method is more appropriate, because its use has less side effects than the pharmacological method. One of the non-pharmacological techniques that can be given to overcome sleep difficulties in pregnant women includes relaxation techniques such as loving massage, yoga, progressive muscle relaxation, music therapy, meditation, swimming (Harahap et al., 2010).

The action of massage for pregnant women is given 4 times in 2 consecutive weeks for 20 minutes (Rufaida, Lestari, & Susanti, 2020). Conducted regularly twice a week by certified and experienced midwives (Widiyanti, 2018).

### 4. Conclusion

The conclusion of the effectiveness of Loving Massage on sleep quality in third trimester pregnant women at PMB Deliana obtained results mThe majority of the sleep quality of pregnant women before the Loving Massage was 9, namely 11 people (31.4%), the majority of the sleep quality of pregnant women after doing Loving Massage was 4, namely 15 people (42.9%), the result is that the average sleep quality at Third trimester pregnant women at the first measurement was 5.63 (poor quality), while the average sleep quality for trimester III pregnant women in the second measurement was 4.90 (good quality). In the statistical test, it was found that the value of  $p = 0.000$  so that  $H_0$  was rejected, it was concluded that there was an effect of Loving Massage on the sleep quality of pregnant women in the third trimester ( $p < 0.000$ ).

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