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THE EFFECT OF PRENATAL GENTLE YOGA ON LOW BACK PAIN IN PREGNANT WOMEN IN THE II-III TM AT THE VERA CLINIC IN 2024

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Abstract.
Pregnant women in various regions of Indonesia reach 60-80% experience back pain. The prevalence of back pain occurs in pregnancy with reported incidents of 50% in England and Scandinavia, Australia reaching 70%. One of the non-pharmacological alternatives that can be attempted to reduce complaints of lower back pain is prenatal gentle yoga. The type of research used is Quasi Experimental (quasi-experimental) with a One Group Pre-post Test Design. The data collection technique used a questionnaire sheet. The research sample used the Accidental Sampling technique using the T-test. The sample obtained 30 pregnant women with inclusion criteria: Pregnant women in the second-third trimester with complaints of lower back pain, the condition of the mother and fetus in a healthy condition without complications. Respondents were measured for pain levels before and after being given prenatal gentle yoga 4 times with a duration of 30 minutes. The pain measurement instrument used was the Numeric Rating Scale (NRS) sheet. The data analysis technique used T-test analysis with a p value of 0.000 <α 0.05.) which means Ha is accepted, there is an effect of prenatal gentle yoga on reducing lower back pain. This study is in line with the study (Nur Amalina Leandra et al., 2021), prenatal gentle yoga has a significant effect on reducing back pain in pregnant women in the third trimester after intervention was carried out twice for one week with a duration of 60 minutes with a p value of 0.000.

Keywords: Pregnant Women, Lower Back Pain, Prenatal Gentle Yoga.

I. INTRODUCTION

The International Federation of Obstetrics and Gynecology (FOGI) defines pregnancy as fertilization or union of spermatozoa and ovum and continued with nidation or implantation. Normal pregnancy will last for 40 weeks or 10 months or 9 months according to the calendar. Pregnancy is divided into 3 trimesters, the first trimester lasts for 12 weeks, the second trimester from the 13th week to the 27th week and the third trimester from the 28th week to the 40th week (Prawiroharjo, 2016).

Pregnancy is an event preceded by the meeting of an egg or ovum with a sperm cell. The pregnancy process will last for approximately 10 months, or 9 calendar months, or 40 weeks, or 280 days calculated from the first day of the last menstrual period. Pregnancy is the meeting of an egg with a sperm cell (conception) followed by physiological and psychological changes. Pregnancy lasts approximately 200 days (40 weeks) and no more than 300 days (43 weeks). A pregnancy of 40 weeks

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is called a mature pregnancy (full term). Pregnancies of 23 and 35 weeks are called premature pregnancies. (Brayshaw, 2013). Based on the Ministry of Health of the Republic of Indonesia (Kemenkes RI) in 2016, the number of pregnant women in Indonesia reached 5,354,594 people.

Based on the 2018 Basic Health Research (Riskesdas) data, examinations of pregnant women in Riau Province in K1 were 94.7% and K4 were 69.9%. Judging from the presentation of these figures, most pregnant women chose to have their pregnancy checked by midwives (80.3%) and with the highest presentation at health service facilities at clinics or midwife practices (40.5%). The number of mothers giving birth with midwife delivery assistance had the highest presentation (61.1%) and choosing health service facilities at midwife clinics to give birth was (23.7%). Based on these data, it can be seen that the number of examinations of pregnant women at health service facilities has increased from 2013 to 2018.

Pregnant women in the second and third trimester experience an increase in fetal weight. As the gestational age increases, the ligaments, especially the pelvis, will soften and become more flexible. This change occurs in preparation for labor so that it can facilitate the release of the fetus. The weight of the fetus will press down on the cervix so that it will affect the position of the pelvis. This change will pull the muscles and ligaments around the lower spine. As a result, pregnant women will feel pain in the back, legs and soles of the feet (Wahyudi & Indiarti, 2014).

Physiological changes experienced by pregnant women can cause discomfort such as nausea, constipation, insomnia, and back pain. (Rosdiani Umamah 2018). Women who have previously had back pain problems are at high risk of experiencing back pain and their back pain can occur early in pregnancy called relaxin begins to soften the cartilage in the hip joint so that the bones are slightly stretched and there is not enough space for the fetus. These changes provide an unstable base to support the additional load. As a result of these changes, pregnant women can experience back pain, cramps, even charley horses (muscle cramps) in the buttocks, pelvis and thighs (Rosdiani and Umamah 2018).

The prevalence of back pain occurs in pregnancy with reported incidences of 50% in the UK and Scandinavia, Australia up to 70%. Mantle reported that 16% of women studied complained of severe back pain and 36% in the study of Ostgaard et al (Megasari 2015). Pain experienced by pregnant women can cause sleep disturbances, disruption of daily activities and reduce the ability to do work (Nathan and Scobell 2012).

One of the non-pharmacological alternatives that can be tried to reduce lower back pain complaints is prenatal gentle yoga. The benefits of prenatal yoga are to train the mother's pelvic floor

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muscles to be stronger and more elastic during pregnancy. Doing restorative and relaxation postures in yoga also helps balance the body when tired or stressed so that it can improve maternal health during pregnancy, improve breathing, sexual ability and can lower blood pressure (Wulandari DA, Ahadiyah E et al., 2021)

Lina Fitriani's (2018) research on the Effectiveness of Prenatal Gymnastics and Prenatal Yoga in Reducing Back Pain in Pregnant Women in the Third Trimester found that prenatal gymnastics were effective in reducing lower back pain in pregnant women in the third trimester (Wulandari et al., 2020).

According to Octavia (2018) quoted by (Nur Amalina Leandra et al., 2021), prenatal gentle yoga has a significant effect on reducing back pain in pregnant women in the third trimester after doing yoga with lower back pain in pregnant women before and after doing prenatal gentle yoga. prenatal gentle yoga with intervention twice for one week with a duration of 60 minutes with a p value of 0.000. This is reinforced by the results of Fitriani's research (2018) which states that prenatal gentle yoga is effective in reducing lower back pain in pregnant women in the third trimester, done once a week with a duration of 30 - 60 minutes

Therefore, based on the data and theories obtained previously, I as a researcher feel interested in conducting this research. Based on the data that has been presented previously, in Riau Province, midwife clinics or independent midwives are the highest number for pregnant women to have pregnancy check-ups and choose midwife clinics and midwives as assistants in childbirth. And at the Vera Clinic there is a prenatal gentle yoga class service that is held every month. Therefore, the researcher is interested in studying "The Effect of Prenatal Gentle Yoga on Lower Back Pain in Pregnant Women in TM II-III at the Vera Clinic in 2024" to find out whether prenatal gentle yoga can affect pregnant women, especially TM II-III in reducing lower back pain.

II. LITERATURE REVIEW

The type of research is Quasi Experimental (quasi-experiment) with One Group Pre-post Test Design (without control group). The research location is at Vera Clinic, the research was conducted for 2 months. The research sample used Accidental Sampling technique using T-test. The sample was obtained from 30 pregnant women with inclusion criteria; Pregnant women in the second-third trimester with complaints of lower back pain, the condition of the mother and fetus in a healthy condition without complications. Respondents were measured

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for pain levels before and after being given prenatal gentle yoga 4 times with a duration of 30 minutes. The pain measurement instrument used was the Numeric Rating Scale (NRS) sheet.

This analysis is used to test prenatal gentle yoga with lower back pain in pregnant women. In analyzing the data bivariately, the data tester was carried out with a statistical test of the t-dependent test, namely the paired sample t-test statistical test to measure the level of back pain before and after prenatal gentle was carried out in the intervention group, and the mean difference before and after was obtained in the intervention group. Significant level ($\alpha = 0.05$), guidelines for accepting the hypothesis: if the probability data (p) <0.05 then Ho is rejected and if the value (p)> 0.05 then Ho is accepted.

IV. RESEARCH RESULTS AND DISCUSSION

Based on the results of research conducted at the Vera Clinic in 2024, the results of the study entitled "The Effect of Prenatal Gentle Yoga on Reducing Lower Back Pain in Pregnant Women in TM II-II at the Vera Clinic in 2024" obtained the results presented.

Table 4.1 Respondent Characteristics

No.	Gestational Age	N	%
1.	Trimester II	6	20.0
2.	Trimester III	24	80.0
	Total	30	100.0

Source: Primary Data, 2024

Based on table 4.1.1, it can be seen that the majority of pregnant women who attended the prenatal gentle yoga class were 24 pregnant women in the third trimester (80.0%) and 6 pregnant women in the second trimester (20.0%).

Table 4.2 Frequency Distribution of Prenatal Gentle Yoga

Respondent Characteristics	Treatment			
	Pretest		Posttest	
	F	%	F	%
Done	0	00.0	30	100.0
Are not done	30	100.0	0	00.0
Total	30	100.0	30	100.0

Source: Primary Data, 2024

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Based on table 4.1.2, it can be seen that in the prenatal gentle yoga group, 30 pregnant women (100%) had not previously done prenatal gentle yoga.

Table 4.1.3 Frequency Distribution of Low Back Pain

Respondent Characteristics	Treatment			
	Pretest		Posttest	
	F	%	F	%
No Pain	0	0.0	28	93.3
Severe Pain	30	100.0	2	6.7
Total	30	100.0	30	100.0

Source: Primary Data, 2024

Based on table 4.1.3, it can be seen that before doing yoga, 30 pregnant women experienced severe back pain and after doing prenatal gentle yoga movements, those who experienced lower back pain decreased to 28 people with a percentage of 93.3%.

Table 4.3 Differences between pretest and posttest of the effect of prenatal gentle yoga on reducing lower back pain in pregnant women in TM II-III at the Vera clinic in 2024.

Variables	Mean	SD	SE	P value	N
Pre-test	1.20	0.407	0.074	0,000	30
Post-test	0.53	0.571	0.104		30

Source: primary data (2024)

Based on table 4.3, it can be seen that the average before prenatal gentle yoga was performed on the first measurement was 1.20 with a standard deviation of 0.407 and after prenatal gantle yoga was performed on the second measurement, an average of 0.53 with a standard deviation of 0.571 was obtained. The mean difference value between the first and second measurements was 0.667 with a standard deviation of 0.479. The results of the statistical test obtained a p value = 0.000, so it can be concluded that there is a significant difference between before and after prenatal gentle yoga was performed on pregnant women in TM II-III.

The results of the study from 30 respondents of pregnant women in the second and third trimesters stated that there was an effect of prenatal gentle yoga which was done 4 times with a duration of 30 minutes. Prenatal gentle yoga is a modification of basic yoga whose movements are adjusted to the condition of pregnant women. Yoga is a body, mind and mental

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exercise that greatly helps pregnant women in flexing their joints and calming their minds, especially in pregnant women in the second and third trimesters. The movements in prenatal yoga are made with a slower tempo and adjusted to the capacity of the pregnant woman's movement space.

This study is in line with research (Nur Amalina Leandra et al., 2021), namely prenatal gentle yoga has a significant effect on reducing back pain in pregnant women. Therefore, prenatal yoga is needed to help pregnant women who experience lower back pain complaints from severe to moderate complaints.

Based on the data obtained by the researcher, it was found that the majority of pregnant women experienced lower back pain and there was a significant effect after doing prenatal gentle yoga movements. so that p value = 0.000 <α 0.05 was obtained. indicating an effect between the two research variables.

Based on the research results and supported by several other research results, the researcher's assumption in this study is that there is an influence between prenatal gentle yoga and reducing lower back pain. Because the yoga movements that are done can stretch the joints and make them relax.

V. CONCLUSION AND SUGGESTIONS

Based on research and discussion on the effect of prenatal gentle yoga on lower back pain in pregnant women in the second-third trimester at the Vera Clinic, it can be concluded that, based on research and discussion on the effect of prenatal gentle yoga on lower back pain in pregnant women in the second-third trimester at the Vera Clinic, a p value of 0.000 <α 0.05 was obtained, which means that there is a significant effect between before and after prenatal gentle yoga was carried out on pregnant women with lower back pain at the Vera Clinic in 2024.

To improve the results of this research in the field, the researcher provides the following suggestions:

1. For Respondents

Mothers must and must know that pregnant women will experience psychological changes during pregnancy, and that is a normal and common thing for pregnant women. One of the psychological changes that pregnant women will experience is lower back pain during pregnancy, which usually increases in previous pregnancies that have experienced lower back

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pain. But mothers do not need to worry and be afraid, because the anxiety experienced by mothers can be overcome with preantal gentle yoga routinely for 30 minutes.

2. For Research Places

For research sites, it is hoped that the number of prenatal gentle yoga classes can be increased so that pregnant women who have complaints can have the same opportunities so that the complaints they feel can be reduced.

3. For the Medistra Health Institute of Lubuk Pakam

For the Medistra Lubuk Pakam Health Institute, this research is expected to be used as a reference for further research related to the title of this research.

4. For Researchers

For the researchers themselves, the results of this study are expected to increase insight, knowledge and experience during research, especially regarding the effect of prenatal gentle yoga on lower back pain in pregnant women.

5. For Further Researchers

For further researchers, it is expected to be used as a source of knowledge and information, and it is also expected to develop research results with other variables and it is expected to be able to further study the effect of prenatal gentle yoga on lower back pain in pregnant women in the second to third trimester.

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