

Prenatal Gentel Yoga As Non-Pharmacological on The Anxiety Level in The Third Trimester of Pregnancy

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Abstract: Anxiety in third trimester primigravida is a common problem and can have an impact on maternal and fetal health. One method that can be used to reduce anxiety is prenatal gentle yoga, which is known to provide a relaxing effect and improve the emotional well-being of pregnant women. The aims to analyze prenatal gentle yoga as Non-pharmacological on the anxiety level in the third trimester of pregnancy. Using quasi-experimental design and pretest-posttest design with a control group. The study sample consisted of third trimester primigravida who were divided into an intervention group (prenatal gentle yoga) and a control group. Anxiety levels were measured before and after the intervention using validated instruments. Data analysis was performed using the Wilcoxon Signed Ranks test to test for differences in anxiety before and after the intervention in each group. The results showed a significant difference in anxiety levels before and after prenatal gentle yoga in the intervention group with a p value = 0.000. Meanwhile, in the control group, there was no significant difference in anxiety levels with a p value = 0.180. Prenatal gentle yoga has a significant effect in reducing the anxiety level of third trimester primigravida. Therefore, prenatal gentle yoga can be recommended as one of the non-pharmacological methods to reduce anxiety in pregnant women.

Keywords: Anxiety, Non-Pharmacological, Prenatal Gentle Yoga, Third Trimester Pregnancy

1. Introduction

Pregnancy is an important phase in a woman's life that brings various physical, emotional, and psychological changes. One of the biggest challenges that pregnant women often experience is anxiety, especially in primigravida mothers entering the third trimester (da Silva Lopes et al., 2021). This anxiety can be triggered by various factors such as hormonal changes, uncertainty in facing labor, and fear of complications that may occur (Patiyah et al., 2021). If not managed properly, excessive anxiety can have a negative impact on maternal and fetal health, including an increased risk of premature birth, sleep disturbances, and increased blood pressure that can lead to preeclampsia.

Prenatal gentle yoga as one of the non-pharmacological methods that beneficially to reduce anxiety in pregnancy (Dewi & Purnani, 2019). It is a form of exercise specifically designed for pregnant women to help improve their physical and mental well-being (Widiyarti

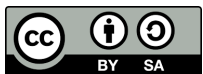
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et al., 2024) and a science that connects the mental, physical, and spiritual aspects of humans to achieve holistic health. This practice not only involves physical movements but also breathing techniques, meditation, and positive affirmations that can help pregnant women feel more relaxed and ready to face labor. Therefore, prenatal yoga is one of the methods that are widely recommended by health workers in an effort to improve the quality of life of pregnant women.

Through yoga practice, pregnant women can be better prepared to face the labor process both physically and mentally. Prenatal yoga also has benefits in increasing body flexibility, improving posture, and reducing back pain that is often experienced during the third trimester of pregnancy (Herdiani & Mutiara, 2023). In addition, breathing techniques in yoga can help pregnant women manage stress and anxiety, so they are calmer and more confident in facing labor.

A study conducted in Paguyaman Health Center from June to September 2024 provides empirical evidence regarding the effectiveness of prenatal yoga in reducing anxiety in pregnant women. Of the 32 respondents who participated in this study all of them were back pain, respondents were pimi gravidarum and multi gravidarum mothers..

There are several factors that can cause anxiety in pregnant women, especially in the third trimester. Firstly, significant physical changes such as weight gain, changes in body shape, and the onset of various physical symptoms can trigger discomfort and concern (Yanti L.C et al., 2022). Secondly, concerns about the childbirth process itself also become a source of anxiety. Many pregnant women feel anxious about the pain they will experience, potential complications, and how they will cope with the childbirth process (Kumar et al., 2018). According to research by Ayers et al. (2016), about 40% of pregnant women report significant fear of childbirth, which can lead to prolonged emotional stress. Thirdly, social and environmental factors also contribute to anxiety levels. Support from partners, family, and friends is crucial, but not all pregnant women receive adequate support. Fourthly, hormonal factors also play an important role in anxiety during pregnancy. Changes in hormone levels, particularly estrogen and progesterone, can affect mood and anxiety levels. (Kumar et al., 2018). Finally, past negative experiences related to pregnancy or childbirth can affect the levels of anxiety in current pregnant mothers.

Women who experience back pain during pregnancy are more likely to report higher levels of anxiety compared to those who do not have such pain. This anxiety is often related to concerns about their ability to give birth and care for the baby after birth. Therefore, managing back pain effectively is crucial to reducing the anxiety experienced by pregnant mothers (Yanti L.C et al., 2022).

The use of prenatal gentle yoga as a method to alleviate back pain has gained increasing attention. Yoga not only helps reduce back pain but also enhances flexibility and muscle strength, which can support a pregnant woman's body as it undergoes physical changes. With this, the government and health workers are expected to integrate prenatal yoga into pregnant women's health programs in health facilities. Prenatal yoga classes guided by experienced instructors can provide great benefits for pregnant women, especially for those who experience high anxiety (Kaban, 2023). With this program, it is hoped that the incidence of anxiety in pregnant women can be reduced, so that they can enjoy the pregnancy process and face childbirth more comfortably and smoothly.

2. Proposed Method

This study is a quantitative study with a quasi-experimental design that aims to analyze the effect of prenatal gentle yoga on the anxiety level of third trimester primigravida pregnant women. This design allows comparison between the intervention group and the control group before and after treatment. This study was conducted at the Paguyaman Health Center, Boalemo Regency, Sulawesi. The research was conducted from June to September 2024. The population in this study were all third trimester primigravida pregnant women who visited the Paguyaman Health Center. Samples were selected using purposive sampling technique with inclusion criteria, namely third trimester primigravida pregnant women who are willing to participate in the study, do not have a history of severe anxiety disorders, and are in a stable health condition to do prenatal yoga. Exclusion criteria include pregnant women who have pregnancy complications that can interfere with the implementation of yoga or are undergoing intensive psychological therapy. Data were collected through anxiety level questionnaires before and after the intervention using a validated anxiety scale. The intervention group was given a four week prenatal yoga program with exercise sessions twice a week, while the control group was not given any special treatment. Observations were made to ensure respondents' compliance in following the program. Data were analyzed using the Wilcoxon Signed Ranks test to assess changes in anxiety levels before and after the intervention in each group. Data processing was performed with statistical software with a significance level set at $p < 0.05$. The results of the analysis were used to assess the effectiveness of prenatal gentle yoga in reducing anxiety in third trimester pregnant women.

3. Results and Discussion

Table 1. Frequency Distribution of Respondent Characteristics

Characteristics	Frequency (f)	Percentage (%)
Age of Intervention Group		
<20 y.o	3	18.8
20-35 y.o	13	81.2
Age >35 years	0	0.0
Age of Control Group		
<20 y.o	6	37.5
20-35 y.o	10	62.5
Age >35 years	0	0.0
Gravida of Intervention Group		
Primigravida	12	75.0
Multigravida	4	25.0
Gravida of Control Group		
Primigravida	9	56.2
Multigravida	7	43.8

Table 1 shows that the majority of respondents in intervention group were in the 20-35 years old (81.2%), and in control group were in the 20-35 years old (62.5%). The gravidarum on intervention group were primigravida (75.0) and control gorup were primigravida (56.2%).

Table 2. Frequency Distribution of Anxiety Levels of Pregnant Women Before and After Prenatal Yoga in Intervention Group

Anxiety Level	Frequency (f)	Percentage (%)	Mean; SD
Before Intervention in Intervention Group			22.75; 2.769
No Anciety (<14)	0	0.0	
Low (14-20)	2	12.5	
Moderate (21-27)	14	87.5	
High (28-41)	0	0.0	
Very High (42-58)	0	0.0	
Before Intervention in Control Group			22.75; 2.049
No Anciety (<14)	0	0.0	
Low (14-20)	1	6.2	
Moderate (21-27)	15	93.8	
High (28-41)	0	0.0	
Very High (42-58)	0	0.0	
After Intervention in Intervention Group			16.81; 3.167
No Anciety (<14)	0	0.0	
Low (14-20)	13	81.2	
Moderate (21-27)	3	18.8	
High (28-41)	0	0.0	
Very High (42-58)	0	0.0	
After Intervention in Control Group			22.56; 1.861
No Anciety (<14)	0	0.0	
Low (14-20)	1	6.2	
Moderate (21-27)	15	93.8	
High (28-41)	0	0.0	
Very High (42-58)	0	0.0	

Based on table 2, before intervention in prenatal gentle yoga, the majority of respondents in intervention group were experienced anxiety level in moderate level as many as 14 person (87.5%) with score mean 22.75; SD 2.769, in control group were experienced anxiety level in moderate level as many as 15 person (93.8%) with score mean 22.75; SD 2.049. However, after doing prenatal gentle yoga in intervention group, there were a significant decrease in anxiety levels, where as many as 13 person (81.2%) of respondents experienced low anxiety with score mean 16.81; SD 3.167, and in control group that didn,t conduct prenatal gentle yoga were still moderate anxiety as many as 15 person (93.8%) with score mean 22.56; SD 1.861.

Table 3. Wilcoxon Test Results between Prenatal Gentle Yoga and Anxiety Levels

Variables	P (α 0.05)
Anxiety Level Before & After Prenatal Gentle Yoga in Intervention Group	0.000
Anxiety Level Before & After Prenatal Gentle Yoga in Control Group	0.180

The Wilcoxon test results in table 3 show that there is a significant difference in anxiety levels before and after following prenatal gentle yoga in intervention group with a p-value of 0.000 ($p < \alpha 0.05$). However anxiety levels before after in control group with a p-value (0.180) ($p > \alpha 0.05$). This indicates that prenatal gentle yoga has a significant effect in reducing the anxiety level in pregnant women at the third trimester. Thus, this study confirms that prenatal gentle yoga practice can be used as an effective non-pharmacological method in reducing anxiety during pregnancy. Structured prenatal gentle yoga programs in health facilities can be part of efforts to improve the well-being of pregnant women and help them face childbirth with more calm and confidence.

4. Discussion

Pregnancy is an important phase in a woman's life that involves not only physical but also mental and emotional changes. The third trimester is quite a challenging period for pregnant women, especially for those experiencing their first pregnancy (primigravida) (Bujani et al., 2023) . One of the challenges that most often arise in this phase is anxiety before labor. Various factors such as fear of the birthing process, hormonal changes, and concerns about fetal health can increase the anxiety of pregnant women. If not managed properly, excessive anxiety can have a negative impact on maternal and fetal health, including an increased risk of premature birth, high blood pressure, and psychological disorders that can continue postpartum (L. C. Yanti, 2022).

In an effort to reduce the anxiety level of pregnant women, prenatal yoga is one method that is starting to be widely applied in various health facilities. Prenatal yoga is an exercise specifically designed for pregnant women by combining breathing techniques, meditation, and gentle body movements to improve physical and emotional well-being (Sipayung, 2024). Antenatal yoga has an important role in helping pregnant women to achieve a balance between mental, physical, and spiritual (Z. H. Yanti et al., 2021). With structured practice, pregnant women can be better prepared for labor, both physically and mentally.

The results of this study indicate that there is a significant effect of prenatal yoga on the anxiety level of third trimester primigravida pregnant women. Before participating in prenatal yoga, the majority of pregnant women experienced anxiety in the moderate to high category. However, after undergoing a prenatal yoga program for several weeks, there was a significant decrease in anxiety levels, where most pregnant women experienced low anxiety. This result is reinforced by statistical analysis using the Wilcoxon test which shows a p-value of 0.000, which means there is a significant difference between anxiety levels before and after prenatal yoga intervention.

This is in line with previous research which revealed that prenatal yoga is effective in reducing anxiety in pregnant women. One mechanism that explains these results is that breathing exercises in yoga help activate the parasympathetic nervous system, which is responsible for calming the body and reducing the stress response. In addition, meditation techniques in yoga help pregnant women to focus more on the present, thereby reducing excessive worry about the future, especially regarding labor (Putu et al., 2024).

In addition to psychological benefits, prenatal yoga also provides significant physical benefits for pregnant women. Yoga movements help increase muscle flexibility, improve posture, and reduce back pain and muscle tension often experienced during the third trimester (Situmorang et al., 2022). Some yoga movements are also specifically designed to strengthen the pelvic floor muscles, which are very important in the process of childbirth (Setiyarini & Rahmawati, 2024). With a more relaxed and prepared body, pregnant women can face labor with more confidence and less stress.

From the social aspect, prenatal yoga can also provide additional benefits for pregnant women. In yoga classes, pregnant women often interact with fellow participants who have similar experiences (Situmorang et al., 2023). This can help them feel more supported and understood, reduce feelings of loneliness, and increase their confidence in undergoing pregnancy. This social support is very important in maintaining the mental health of pregnant women, especially for those who experience high anxiety.

The study also revealed that most of the respondents in this study were from the 20-35 age group, which is the most ideal reproductive age group for pregnancy. This age group tends to adapt more quickly to the changes that occur during pregnancy and is more open to relaxation methods such as yoga. In addition, the majority of respondents had a secondary education level and were unemployed. Education and employment factors can also affect the anxiety levels of pregnant women. Mothers who have higher levels of education tend to have easier access to information about pregnancy and childbirth, thus having a better understanding of their condition. Meanwhile, mothers who do not work may have more time to attend prenatal yoga programs than mothers who work (Maulinda Nur Amalina Leandra, Atit Tajmiati, 2021).

The results of this study have important implications for the world of health, especially in the management of anxiety of pregnant women. With the results showing the effectiveness of prenatal yoga in reducing anxiety, it is strongly recommended that prenatal yoga programs be integrated into pregnant women's health services at health centers or hospitals. Providing prenatal yoga classes guided by experienced instructors can be an effective non-pharmacological solution in helping pregnant women face pregnancy and labor more calmly.

Although this study provides strong evidence of the benefits of prenatal yoga in reducing anxiety in pregnant women, there are still some limitations that need to be considered. One of the main limitations is the relatively small sample size, so the results of this study may not be able to be generalized to a wider population. In addition, this study was only conducted within a certain period of time, so it has not been able to evaluate the long-term effects of prenatal yoga on the mental health of pregnant women.

Therefore, further research with a larger sample size and longer study period is needed to confirm these findings. In addition, further research can also explore other factors that may affect the effectiveness of prenatal yoga, such as the intensity of practice, frequency of practice, and individual characteristics of pregnant women. Thus, it is hoped that prenatal yoga can be increasingly recognized as an effective method of supporting pregnant women's mental health and adopted more widely in maternal health services.

In health policy, the results of this study can also serve as a basis for the government and health service providers to further promote the practice of prenatal yoga as part of pregnancy care. Counseling on the benefits of prenatal yoga should be provided from the beginning of pregnancy so that pregnant women can get the benefits optimally. In addition, training for health workers on prenatal yoga techniques can also be a strategic step in improving the quality of maternal and child health services in Indonesia.

Thus, it can be concluded that prenatal yoga is an effective intervention in reducing the anxiety of third trimester primigravida pregnant women. In addition to providing psychological benefits, prenatal yoga also helps improve the physical health of pregnant women and strengthen social support that can help them face labor more calmly. Therefore, prenatal yoga should be part of a broader maternal health program to improve maternal and fetal well-being and reduce the risk of pregnancy complications caused by excessive anxiety.

Education and counseling efforts on the importance of prenatal yoga should also be expanded so that pregnant women, especially those in rural areas, can understand its benefits and apply it in their daily lives. Collaboration between the government, health professionals, and pregnant women's communities is needed to raise awareness about the importance of mental health during pregnancy and how prenatal yoga can be an effective solution.

5. Conclusions

Prenatal gentle yoga has a significant effect in reducing anxiety of third trimester primigravida pregnant women. This practice not only helps reduce anxiety but also improves the physical and emotional well-being of pregnant women through breathing techniques, meditation, and gentle movements. The results showed that after participating in prenatal yoga, the anxiety level of pregnant women decreased significantly. Therefore, prenatal yoga can be recommended as a non-pharmacological method to reduce anxiety during pregnancy. The integration of prenatal yoga in pregnant women's health services in health facilities can increase the readiness of mothers to face labor with more calm and confidence.

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