



Article

How does Yoga Exercise affect Anxiety in Pregnant Women? : Pre-Experimental Study

Linda K Telaumbanua¹ Mamah Suhaeriah², Astrid F Sianipar³, Nurmah⁴

¹⁻⁴Indonesian Medistra College of Health Sciences

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CORRESPONDENCE

E-mail: mamahsuhaeriah@gmail.com



ABSTRACT

Anxious during pregnancy not only impacts pregnant women's health, but it may also interfere with the delivery process, resulting in early labor, extended labor, cesarean delivery, and low birth weight. According to WHO estimates, psychiatric illnesses affect around 10% of pregnant women and 13% of postpartum women globally. This frequency is greater in underdeveloped nations among pregnant women (15.6%) and postpartum women (19.8%). The goal of this study is to determine the effect of prenatal yoga exercise on the anxiety of pregnant women at TPMB Mamah Suhaeriah in 2022. Method for doing research This sort of study employs the Pre-Experimental technique, using a one-group pretest-posttest design. Total sampling was used, and there were 20 responders in total. An observation sheet was employed as the study instrument. The Wilcoxon Sign Rank Test was performed to analyze the data. The Wilcoxon Sign Rank test yielded a p-value of 0.000, which is less than the threshold of 0.05. This indicates that H_a is accepted. Conclusion: Prenatal yoga practice has an influence on pregnant women's anxiety levels at TPMB Mamah Suhaeriah in 2022. Pregnant women are advised to manage their psychological condition effectively and to exercise often, since exercise has good benefits for survival during pregnancy..

I. INTRODUCTION

Pregnancy brings so many changes to a woman's body that it is not surprising to experience some discomfort during pregnancy. One of the discomforts that often arises during pregnancy is pregnancy anxiety (Kusuma W & Jayanti D.Y, 2020).

Anxiety is a normal condition that occurs and can become a psychological disorder if it occurs excessively for more than 3 weeks, which is characterized by feelings of worry and agitation accompanied by physiological symptoms and disrupting daily life. The pregnancy period is not only an enjoyable period but can also cause physical and mental stress (Wahyuni et al, 2022).

Anxiety during pregnancy not only affects the health of pregnant women but can also have an impact on the birth process such as premature labor, prolonged labor, cesarean birth, low birth weight. Based on WHO data, there are around 10% of pregnant women with psychological disorders and around 13% of postpartum mothers worldwide. This incidence is higher in developing countries in pregnant women, namely 15.6% and 19.8% in postpartum women. Significant health problems also occur during pregnancy and postpartum, namely around 1 in 3 to 1 in 5 women in developing countries and around 1 in 10 in developed countries. Around 28.7% in Indonesia experience psychological disorders in the form of anxiety during the third trimester of pregnancy (Wahyuni et al, 2022).

WHO states that there are around 10% of pregnant women with psychological disorders and around 13% of postpartum mothers worldwide. This incidence is higher in developing countries in pregnant women, namely 15.6% and 19.8% in postpartum women (WHO, 2019). Significant health problems also occur during pregnancy and postpartum, namely around 1 in 3 to 1 in 5 women in developing countries and around 1 in 10 in developed countries. Around 28.7% in Indonesia experience psychological disorders in the form of anxiety during the third trimester of pregnancy (Ministry of Health 2019).

Based on data from the Central Statistics Agency (BPS), morbidity (morbidity rate) in Indonesia fell to 13.04% in 2021 compared to the previous year of 14.46%. (22 Dec 2021).

In Indonesia, there are 373,000 pregnant women, of whom 107,000 people experience anxiety during childbirth (28.7%). On the island of Java, there are 67,976 pregnant women, of whom 35,587 people (52.3%) experience anxiety during childbirth (Ministry of Health of the Republic of Indonesia, 2015).

Coverage of visits by pregnant women in West Java, namely K1 and K4 in 2016 - 2020. First visits by pregnant women at 0-3 months of pregnancy (K1) in West Java Province in 2020, as many as 970,813 pregnant women from the target

955,411 pregnant women (101.6%), and K4 visits were 917,417 pregnant women (96.0%), there were 37,994 pregnant women who were absent (Drop out) at the 4th examination (5.16%) (West Java Health Service, 2020).

Handling of pregnant women with obstetric complications in West Java, in 2020 there were 166,873 pregnant women or 86.5%, of the estimated 192,980 pregnant women with complications so that pregnant women's complications do not exceed estimates. By detecting pregnant women who are at high risk of complications, it is hoped that childbirth can be treated early or, even if birth complications occur, they will not result in death. The causes of maternal death are still dominated by 27.92% bleeding, 28.86% hypertension in pregnancy, 3.76% infection, 10.07% disorders of the circulatory system (heart), 3.49% metabolic disorders and 25.91% causes others (West Java Health Service, 2020).

The third trimester of pregnancy is the final age of pregnancy and before delivery (Syaiful and Fatmawati, 2019). Pregnancy in the third trimester is often referred to as the vigilant "waiting phase". In this period, pregnant women begin to realize the presence of the baby as a separate creature, so that pregnant women become impatient with the presence of their baby. In the third trimester of pregnancy, feelings of fatigue, mild depression and discomfort will increase (Syaiful and Fatmawati, 2019).

The psychology of pregnant women experiences changes, one of which is anxiety at different levels when facing the birthing process. Anxiety that occurs in pregnant women can cause stiffness in the muscles of the birth canal and will result in fear tension pain and will cause stiffness in the muscles and pain so that the birthing process becomes hampered and can affect the mother's physical condition and the baby's growth and development. There are ways that can be done to prevent this by carrying out routine pregnancy checks, attending classes/learning for pregnant women, and yoga during pregnancy in order to improve and maintain the health of pregnant women (Wahyuni et al, 2022).

To maintain and improve the health status of pregnant women, it is recommended to do light exercise, one of which is yoga during pregnancy. In terms of preparation for the birth process, yoga practice can also help with the birth process, with good preparation, women will have a greater sense of confidence in facing the birth process. (Pragtinyo, 2014)

A fit and healthy body will enable pregnant women to carry out their daily activities, so that stress due to anxiety before giving birth can be minimized. Yoga during pregnancy helps mothers become aware and familiar with their physical body which changes during pregnancy, and makes communication and bonding with the baby much closer. In accordance with Rafika's research, yoga in pregnancy is effective in reducing physical complaints in the third trimester of pregnant women. (Rafika, 2018)

According to research by Cindy (2022), seven out of nine pregnant women experience mild anxiety after doing prenatal yoga. In six of the nine articles, doing prenatal yoga twice a week can reduce anxiety. The conclusion of this study is that prenatal yoga is very effective in reducing anxiety in TM III pregnancies. Prenatal yoga done twice a week can reduce discomfort during pregnancy, provide comfort and thus reduce anxiety in TM III pregnant women.

Based on research by Sulistyaningsih (2020), the results of the research were 30 people using a sampling technique, namely total sampling and using the Wilcoxon Test statistical test. The results of the research show that the p value is $0.000 < 0.05$, which means that there is an influence of prenatal gentle yoga on the level of reducing anxiety of third trimester primigravida pregnant women in facing the birth process.

The danger of anxiety in pregnant women can have a bad impact so that it can trigger stimulation of uterine contractions. This condition can result in miscarriage and increased blood pressure, which can trigger preeclampsia.

Feeling anxious is normal. In some situations, that feeling is the need to protect oneself from danger. But it is different from anxiety disorders. Anxiety disorders include feelings of fear that arise in situations that are not dangerous, even if thought rationally, it is not clear what is the cause of the feeling of anxiety, but for the person feeling it feels very real. (Dinkes, 2019).

One of the discomforts that often arises during pregnancy is pregnancy anxiety. Yoga in pregnancy is a form of moderate exercise, which can reduce complaints

during pregnancy, including reducing anxiety levels in facing childbirth. The aim of this study was to determine the effect of yoga in pregnancy on anxiety levels in pregnancy.

Based on the background above, the author is interested in conducting research with the theme "The Effect of Yoga in Pregnancy on the Anxiety Levels of Pregnant Women at TPMB Mamah Suhaeriah in 2022".

II. RESEARCH METHODS

This research uses a pre-experimental research design with the research method used is one group pre-post test design, namely revealing cause and effect relationships by involving one group of subjects. The subject group will be observed before the intervention is carried out, then observed again after the intervention is carried out. Before a group is given a certain treatment, it is given a pre-test and then after the treatment another measurement is taken to determine the effects of the treatment. Causation testing is carried out by comparing the results of the pretest with the posttest. However, there is still no comparison with the effect of treatment imposed on other groups (Nursalam, 2013).

This research design uses Quasi Experimental or quasi-experimental design using the One Group Pretest and Posttest Design approach, namely a research design in which observations are carried out twice, namely before and after the experiment. Observations made before the experiment (pre-test) can be symbolized by (0) and observations made after the experiment (post-test) can be symbolized by (02) (Suhron, 2024).

III. RESULTS

1. Univariate Analysis

Implementation of Yoga in Pregnancy

Table 1

Frequency Distribution of Yoga During Pregnancy in Pregnant Women

<u>Senam Hamil</u>	<u>Frekuensi (n)</u>	<u>Persentase (%)</u>
<u>Teratur</u>	15	75
<u>Tidak Teratur</u>	5	25
<u>Jumlah</u>	20	100%

Source: Primary

Based on table 4.1, frequency distribution data results implementation yoga in pregnancy The majority of pregnant women doing yoga in pregnancy showed that 15 people (75%) did exercise regularly.

Emergency Level

Table 2

Frequency Distribution of Anxiety Levels After Doing Yoga in Pregnancy in Pregnant Women

<u>Tingkat Kecemasan</u>	<u>Frekuensi (n)</u>	<u>Persentase (%)</u>
<u>Tingkat Kecemasan Sebelum</u>		
<u>Cemas Berat</u>	0	0
<u>Cemas Sedang</u>	5	25
<u>Cemas Ringan</u>	15	75
<u>Tidak Cemas</u>	0	0
<u>Jumlah</u>	20	100
<u>Tingkat Kecemasan Sesudah</u>		
<u>Cemas Berat</u>	0	0
<u>Cemas Sedang</u>	0	0
<u>Cemas Ringan</u>	6	25
<u>Tidak Cemas</u>	14	75
<u>Jumlah</u>	20	100

Source: First

Based on table 4.2, the results of data on the frequency distribution of anxiety levels of pregnant women before doing exercise, the majority of pregnant women experienced mild anxiety as many as 15 people (75%) and after doing yoga regularly during pregnancy, the majority of pregnant women were not anxious, the results of pregnant women were 20. people (70%).

2. Bivariate Analysis

In this bivariate analysis, the results of the analysis of the influence of yoga in pregnancy on the anxiety of pregnant women at TPMB Mamah Suhaeriah in 2022 are explained. The statistical test uses the *Wilcoxon Sign Rank*, which had previously carried out a normality test, the results were negative distribute normal so that the analysis results are obtained explained in the following table.

Table 3

The Effect of Yoga in Pregnancy on the Anxiety Levels of Pregnant Women

<u>Kelompok Intervensi</u>	<u>Mean</u>	<u>SD</u>	<u>Min</u>	<u>Max</u>	<u>Penurunan</u>	<u>Z</u>	<u>P-value</u>
<u>Pretest tingkat kecemasan</u>	3.70	.470	3.00	4.00			
<u>Posttest tingkat kecemasan</u>	2.75	.444	2.00	3.00	-0.95	-4.359	0.000

Source: Primary

Based on the results of statistical tests using the Wilcoxon Sign Rank test, the p-value was obtained $(0.000) < (0.05)$. This states that H_a is accepted and H_o is rejected, which means that there is an influence of yoga in pregnancy on the anxiety of pregnant women at TPMB Mamah Suhaeriah in 2022.

IV. DISCUSSION

Univariate Analysis

1. Yoga In Pregnancy

Based on the results of research on the distribution of the frequency of doing yoga during pregnancy, the majority of pregnant women doing yoga during pregnancy showed that 15 pregnant women (75%) did exercise regularly. Yoga in pregnancy is one form sport moderate, which is carried out by pregnant women from 20 weeks of gestation. Yoga on pregnancy can reduce complaints during pregnancy, including reducing the level of anxiety in facing childbirth. Through exercise, the mother's sense of stress during pregnancy and facing childbirth will be reduced, because yoga during pregnancy causes an increase in norepinephrine levels in the brain, thereby increasing work capacity and reducing feelings of tension (Kusuma W & Jayanti D.Y, 2020).

Pregnant women usually sweat more easily. It is best to do yoga during pregnancy in a room that is not hot and not humid. If yoga during pregnancy is done outdoors, it is best not to do yoga during pregnancy between 10 am and 3 pm once a week for 3 weeks (Kusuma W & Jayanti D.Y, 2020).

According to research by Wahyuni et al (2022), the results of this study showed that pregnant women who participated in exercise had a proportion of mild anxiety of 100% and mothers who did not participate in exercise had a level of mild anxiety of 36% and moderate anxiety of 64%.

Based on researchers' assumptions, yoga in pregnancy improves the health status of pregnant women, it is recommended to do light exercise, one of which is yoga in pregnancy. Yoga during pregnancy teaches pregnant women to relax, this is useful for stabilizing anxiety and reducing anxiety physically and mentally and apart from this, yoga activities during pregnancy provide information regarding the mother's preparation for childbirth.

2. Emergency Level

Based on the results of research on the frequency distribution of anxiety levels of pregnant women before doing exercise, the majority of pregnant women experienced mild anxiety as many as 15 people (75%) and after doing yoga regularly during pregnancy, the majority of pregnant women were not anxious. The results showed that pregnant women were 14 people (70%).

Anxiety is a normal condition that occurs and can become a psychological disorder if it occurs excessively for more than 3 weeks, which is characterized by feelings of worry and agitation accompanied by physiological symptoms and disrupting daily life. The pregnancy period is not only an enjoyable period but can also cause physical and mental stress (Wahyuni et al, 2022).

Based on Sari's (2019) research, the average score for pregnant women's self-confidence level before being given was 65.66 with a standard deviation of 4.73, the lowest score was 56 and the highest score was 77. And the average score for sleep quality was 70.80 with standard deviation 3.06, lowest score 64 and highest score 78.

Based on researchers' assumptions, one of the discomforts that often arises during pregnancy is pregnancy anxiety. Yoga in pregnancy is a form of moderate exercise, which can reduce complaints during pregnancy, including reducing anxiety in facing childbirth. The aim of this study was to determine the effect of yoga in pregnancy on anxiety levels in pregnancy.

Bivariate Analysis

Based on the results of statistical tests using the Wilcoxon Sign Rank test, a p-value was obtained ($0.000 < 0.05$). This states that H_a was accepted and H_o was rejected, which means that there is an influence of yoga in pregnancy on the anxiety of pregnant women at TPMB Mamah Suhaeriah in 2022.

Pregnancy is a process of nine months or more in which a woman carries an embryo and the fetus is developing in her womb (WHO, 2020). Changes in pregnant women cause feelings of turmoil caused by physical and mental discomfort, thus making mothers stressed (Asrinah 2010).

Anxiety during pregnancy not only affects the health of pregnant women but can also have an impact on the birth process such as premature labor, prolonged labor, cesarean birth, low birth weight (Wahyuni et al, 2022). The psychology of pregnant women experiences changes, one of which is anxiety at different levels when facing the birthing process. Anxiety that occurs in pregnant women can cause stiffness in the muscles of the birth canal and will result in fear tension pain and will cause stiffness in the muscles and pain so that the birthing process becomes hampered and can affect the mother's physical condition and the baby's growth and development. There are ways that can be done to prevent this by carrying out routine pregnancy checks, attending classes/learning for pregnant women, and yoga during pregnancy in order to improve and maintain the health of pregnant women (Wahyuni et al, 2022).

To maintain and improve the health status of pregnant women, it is recommended to do light exercise, one of which is yoga during pregnancy. In pregnancy yoga teaches pregnant women to relax, this is useful for stabilizing anxiety and reducing physical and mental anxiety and apart from this, yoga during pregnancy provides information regarding the mother's preparation for childbirth (Ni Wayan, 2021).

A fit and healthy body will enable pregnant women to carry out their daily activities, so that stress due to anxiety before giving birth can be minimized. Many people have proven that yoga during pregnancy really helps the birthing process because while doing yoga during pregnancy the mother-to-be is prepared both physically and mentally, so it is hoped that the birth can take place quickly, safely and spontaneously (Ni Wayan, 2021).

Based on research conducted by Primasari (2023), the results showed $p < 0.005$, so it was significant, namely that the intervention process with yoga in pregnancy meant reducing the anxiety level of primigravida mothers before giving birth. Thus, it is hoped that students. Improve skills in providing communication, information and education so that the goals of midwifery care can be achieved. Midwives as implementers evaluate midwifery services to improve the quality of services. Another study conducted by Sari (2019) found the effect of yoga in pregnancy on anxiety and sleep quality of pregnant women in the second and third trimesters.

Based on researchers' assumptions, anxiety that occurs in pregnant women can cause stiffness in the muscles of the birth canal and will result in fear, tension pain and will cause stiffness in the muscles and pain so that the birthing process becomes hampered and can affect the mother's physical condition and the baby's growth and development. Yoga during pregnancy can relax tense muscles thereby reducing the risk of anxiety in pregnant women.

V. CLOSURE

1. Frequency distribution of yoga during pregnancy among pregnant women at TPMB Mamah Suhaeriah in 2022, the majority do yoga during pregnancy.
2. The frequency distribution of anxiety levels after doing exercise for pregnant women at TPMB Mamah Suhaeriah in 2022 mostly experienced changes in anxiety, so that the anxiety level of pregnant women decreased, namely they were not anxious.
3. The influence of yoga in pregnancy on the anxiety level of pregnant women at TPMB Mamah Suhaeriah in 2022 using the test *Wilcoxon Sign Rank* with results *p-value* ($0,000 < 0,05$).

Suggestions for future researchers are hThe results of this research can be used as reference material for further research, then it can be modified and developed more extensive research.

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