

THE EFFECTIVENESS OF PRENATAL YOGA AND DEEP BREATH RELAXATION TECHNIQUE IN REDUCING ANXIETY ON THE THIRD TRIMESTER PREGNANT WOMEN IN CLINIC ASIH WALUYO JATI BANTUL

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Abstract

In the event of pregnancy occur physiological and psychological changes. Psychological changes can cause anxiety. If the anxiety of pregnant women is not overcome, it can cause illness, complications of pregnancy and childbirth in both the mother and the baby. One of effective way to reduce anxiety in pregnant women with prenatal yoga and deep breathing relaxation. The aim of this study to determine the effectiveness of prenatal yoga and deep breathing relaxation on the anxiety of third trimester of pregnant women at Asih Waluyo Jati Clinic. This study was a quasi-experimental with pre and post test design non equivalent control group. The research samples was 32 pregnant women who were divided into 2 groups, 16 mothers of prenatal yoga groups and 16 mothers in relaxation groups. The analysis data used paired T Test. Analysis of paired T-Test differences in anxiety of pregnant women before and after prenatal yoga p value 0.01. Analysis of differences in anxiety of pregnant women before and after breathing relaxation in p value 0.04. The difference in prenatal yoga and deep breath relaxation p value 0.733. There is no difference in prenatal yoga and deep breathing relaxation towards the anxiety of pregnant women.

Keywords: prenatal yoga, deep breath relaxation, anxiety for pregnant women

1. INTRODUCTION

Pregnancy is divided into three trimesters: first, second and third trimester, each trimester pregnant women will experience physical and psychological changes. These physical and psychological changes can cause anxiety. In the event of pregnancy not only changes in physiology occur, but also psychological changes that require emotional adjustment, patterns of thinking, and behavior. In the third trimester pregnant women will feel uncomfortable in including feeling fear of pain and physical dangers that arise during childbirth, worry about their safety, feel anxious that the baby will be born normally or caesar.³

Some developing countries in the world are at high risk of developing psychological disorders in 15.6% pregnant women and postpartum mothers 19.8% including Ethiopia, Nigeria, Senegal, South Africa, Uganda and Zimbabwe⁴. In Indonesia the number of psychological disorders in pregnant women in Indonesia reaches 373,000,000. as many as 107,000,000 or 28.7% of which anxiety occurs in pregnant women ahead of the labor process⁵. Provinces with the highest prevalence of psychological disorders are Aceh, Bangka Belitung, Central Java, DI Yogyakarta, East Java, and South Sulawesi⁶. The adverse effects of psychological disorders on pregnant women affect the emergence of diseases and complications of pregnancy and childbirth in mothers and infants, including the stimulation of uterine contractions, as a result of these conditions can increase blood pressure and can trigger the occurrence of preeclampsia and miscarriage⁷.

Regular prenatal yoga throughout pregnancy can help the physically and mentally condition to be stronger, to adapt various unpleasant physical changing, and to reduce anxiety during

pregnancy. With prenatal yoga the mother will be more confident to undergo labor smoothly and comfortably⁸.

One other interventions that has been proven effective for reducing anxiety is deep breathing relaxation. Breath relaxation plays a role in overcoming anxiety by harmonizing the nervous system. When someone takes a deep breath automatically the person will also slow down the breath rhythm. Deep breathing can improve lung ventilation and increase blood oxygenation so that it can effectively reduce stress and reduce anxiety⁹.

2. METHODS

This study used a quasi experiment method with the pre and post test non equivalent control group design. This research was conducted at the Asih Waluyo Jati Clinic in April 2019. The samples were 32 third trimester pregnant women who divided into two groups, 16 prenatal yoga groups and 16 breath relaxation groups. Sample technique was consecutive sampling technique.

3. RESULTS AND DISCUSSION

3.1. Characteristics of respondents

Table 1 Frequency Distribution Characteristics of Respondents by Age, Education and Employment at the Asih Waluyo Clinic in Jati Bantul

Characteristic of the responden	Yoga		Deep Breathing	
	F	%	F	%
Age				
20-35 years old	16	100	16	100
Total	16	100	16	100
Education				
Midle	2	12,5	10	62,5
High	14	87,5	6	37,5
Total	16	100	16	100
Occupation				
Working	9	56,3	7	43,8
Unworking	7	43,8	9	56,2
Total	16	100	16	100

In this study the results the age of respondents ranged from 20 years to 35 years. This is because the age of <20 years of the reproductive organs is still in the development stage, and women aged > 35 are partially classified in pregnancy at high risk of congenital abnormalities and complications in labor so that the level of anxiety is more severe. In this study all first pregnant women (primigravida) so as to allow anxiety to occur. Anxiety for women who are pregnant for the first time is higher than women who have become pregnant for the second time.

In this study the level of education of mothers in the yoga group is higher education was 14 people experiences anxiety. Mothers have been trying to find health services to reduce anxiety and complaints physical problem during pregnancy by following yoga so that the level of anxiety has decreased. The mothers who are in the breathing relaxation group was dominant in secondary education as many as 10 people and experienced anxiety. The low level of maternal education causes experience stress and anxiety easily, this is due to a lack of information and knowledge to mothers regarding their health and pregnancy.

Pregnant women working or not working are at risk of experiencing anxiety. Mothers who have jobs are more likely to get information and experiences about pregnancy from other people,

because they are often meet other people. Working mothers will get influence in determining the stressor so that the mother can change her perspective and control her anxiety better than unworking mothers.

3.2. Anxiety of pregnant women before and after prenatal yoga.

Table 2 The Anxiety of Pregnant Women Before and After Prenatal Yoga at Asih Waluyo Clinic Jati Bantul

	Mean	St dev	Min	Max
Before prenatal yoga	30,38	9,30	18	46
After prenatal yoga	27,13	11,05	13	47

Based on table 2 it can be seen that mean of anxiety the pregnant women before the prenatal yoga is 30.38 with St dev 9.30 while mea anxiety after prenatal yoga is 27.13 with St dev 11.05.

The result of the univariate analysis show that out of 16 pregnant women before prenatal yoga experience anxiety with mean value of 30.38 and St dev 9.30. Third trimester of pregnant women will experience anxiety when they are not able to cope the psychosocial stressors¹¹. One effort that can be done to reduce anxiety is prenatal yoga ¹¹.

After doing prenatal yoga the anxiety of third trimester pregnant women mean is 27,13 and St dev 11,05. That means prenatal yoga can decrease the anxiety. Because during the third trimester pregnant women who do prenatal yoga will relax and stretch the muscles l increase the parasympathetic nerves from the central nervous system so that the body's dis regulated hormones will be reduced, so that the body will experience relax and decreased anxiety.

Prenatal yoga can overcome anxiety because it can adjust to various unpleasant situations when facing labor. If the worries and anxieties of pregnant women if not handled seriously will have an impact and influence on the physical and psychological aspects, such as pre term birth which will affect the baby condition. ¹²

3.3. The anxiety of pregnant women before and after deep breathing relaxation

Table 3 The anxiety of pregnant women before and after deep breath relaxation at Asih Waluyo Jati clinic Bantul

		Mean	St dev	Min	Max
Before deep breath relaxation	deep	30,06	8,72	12	46
After deep breath relaxation	deep	25,94	8,27	14	46

Based on table 3 it can be seen that initial anxiety before deep breath relaxation in mean 30.06 and St dev 8.72 while anxiety after breath relaxation in mean 25.94 and St dev 8.27, which means there is a decrease in anxiety of third trimester pregnant women after deep breathing relaxation. Deep breath relaxation can reduce or eliminate anxiety, when pregnant women deep breathing in impulses from baroreceptors reach the center of the heart which will stimulate parasympathetic nerve activity so that the breath will be more relieved, calmer, regular heartbeat, relax body muscles, so anxiety and stress decrease¹³.

Table 4 The Effectiveness of Prenatal Yoga on the Anxiety of Third Trimester Pregnant Women at the Asih Waluyo jati Clinic in Bantul

	Pre test mean	Post test mean	Beda mean	P Value
Prenatal Yoga	30,38	27,13	3,25	0,001

Based on table 4 can be seen the results of the Test Paired T test in Prenatal yoga group p-value = 0.001, mean difference of 3.25, which means there is effective prenatal yoga against anxiety reduction in third trimester pregnant women at the Asih Waluyo Jati Clinic

This is because when doing prenatal yoga the movements of prenatal yoga will the parasympathetic nervous system which has a work function that is opposite to the sympathetic nerve will slow down or weaken the work of the internal organs of the body. The parasympathetic nervous system signals the adrenal medulla, affecting the release of catecholamines, namely epineprin (adrenaline) and nonepineprin (nonadrenaline) into the bloodstream, that can reduce anxiety or stress, namely the hormone endoprin¹⁴.

Prenatal yoga has the benefit of releasing stress and anxiety, stabilizing emotions of pregnant women who tend to fluctuate, strengthen determination and courage and build positive affirmations and strength of mind when giving birth. Prenatal yoga is also help reduce their physical complaints, such as back pain, back pain, leg cramps, and improve sleep quality. With the reduction in physical complaints, the mothers feel comfort in their bodies ¹⁵.

Tabel 5 Effectiveness of Deep Breath Relaxation on the anxiety of third Trimester Pregnant Women at Asih Waluyo Jati Clinic in Bantul

	Pre test mean	Post test mean	Beda mean	P Value
Deep Breath	30,06	25,94	4,12	0,004

Bivariate analysis using T Test Paired in the relaxation group the results of the p-value = 0.004 with a mean difference of 4.12 which means that breathing relaxation is effective in the anxiety of third trimester pregnant women.

When doing deep breathing, it will stimulate parasympathetic nerve activity and inhibit the sympathetic center (cardio accelerator), causing systemic vasodilation, decreased heart rate, and heart contraction. The parasympathetic nervous system that travels to the SA node through the vagus nerve releases neurotransmitter acetylcholine which inhibits SA node's depolarization speed, resulting in a decrease in heart rate. As a result of a decrease in heart rate, contraction of heart

muscle fibers and blood volume makes blood pressure decrease and automatically anxious, stress decreases¹⁶. Deep breath relaxation is useful for reducing stress and anxiety. Regularity in breathing causes the mental attitude and body to relax, improve ventilation of the alveoli, maintain gas exchange, prevent atelectasis of lung, reduce stress both physical and emotional stress¹⁷. Based on this, it can be stated that the deep Breath relaxation technique is effectively used to reduce anxiety including anxiety in pregnant women.

Table 6 Differences in anxiety of pregnant women who do prenatal yoga and deep breathing relaxation at the Asih Waluyo Jati Bantul

	Mean	P value
Before yoga	30,38	0,923
Before Deep breath	30,06	
Before Yoga	27,13	0,733
After relaksasi	25.94	

The results of the analysis using an in dependent T-test can be seen in table 6 that the p value before intervention is 0.923 and after intervention p value is 0.733 which means H₀ is accepted and H_a is rejected, which means there is no difference in anxiety of pregnant women doing prenatal yoga and breathing relaxation in. Both interventions can be used to reduce anxiety in pregnant women. But when viewed from the mean value of breath relaxation in the mean of 25.94, which means that deep breath is more effective in reducing anxiety. Deep breathing can be used as the first choice to reduce anxiety in pregnant women because steps are easy to implement and can be carried out independently and continuously at home when anxiety arises again, so that it can provide a comfortable and pleasant feeling¹⁸.

When doing prenatal yoga there are factors that can affect the success of the exercise and reduce anxiety, among others, the presence of a companion or instructor, seriousness in doing each posture, and an exercise atmosphere that creates a sense of support among fellow pregnant women. information regarding the benefits of the exercise and tips for emergencies that can be used by the mother. The instructor can also correct the mother's prenatal yoga movements if there are movements that are not right, so that prenatal yoga exercises can get maximum benefits, while doing prenatal yoga at a yoga place also the mother will get a supportive atmosphere between one mother and another mother ¹⁹.

4. CONCLUSION

- Anxiety of third trimester pregnant women before the prenatal yoga mean 30.38 and anxiety after prenatal yoga mean 27.13 different mean 3.25.
- Anxiety in third trimester pregnant women before deep breath relaxation mean of 30.06 and after dep breat relaxation mean of 25.94 and mean difference of 4.12.
- Prenatal yoga is effective in decreasing anxiety of third trimester pregnant women at Asih Waluyo Jati Jati Clinic with P value 0.001.
- Deep breath relaxation is effective in decreasing anxiety of third trimester pregnant women at Asih Waluyo Jati Jati Bantul with P value 0.004.
- There is no difference between prenatal yoga and deep breathing relaxation to decrease the anxiety of third trimester pregnant women at Asih Waluyo Jati Bantul Clinic with the previous P value is 0.923 and after p value is 0.733.

Based on result, we suggest :

- Clinics can teach deep breath relaxation in pregnant women who have ANC or ultrasound to reduce the anxiety of pregnant women.
- For the next researcher, they can develop the topic of this research to see the effectiveness of yoga and deep breathing relaxation on anxiety in mothers after childbirth and can combine it with other therapies.

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