

EFFECTS OF PRENATAL YOGA ON MATERNAL ANXIETY

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Abstract

Anxious or depression during pregnancy could harm both the mother and the fetus. Antidepressants did not become beneficial for pregnancy. There were several unconventional treatments for anxiety and depression in pregnancy, one of them was prenatal yoga. Prenatal yoga helps improve mood, but pregnant women do not widely use this technique. This study aimed to determine prenatal yoga's effect on pregnant women's anxiety and depression at Midwife Private Practice "Ibu Alam Sidomukti", Salatiga City. This study was quasi-experimental. This study sample consists of 20 pregnant women in the case group and 20 peoples in the control group. Prenatal yoga was held once a week for four weeks in the case group. The purposive sampling was used to obtain respondents. Data collection used a questionnaire before and after prenatal yoga, namely two weeks and four weeks after that. Data analysis in this study using Mann-Whitney test. The results showed no effect of prenatal yoga performed for two weeks on anxiety ($p: 0,893$), but it effectively reduces anxiety after four weeks of performing prenatal yoga ($p: 0,003$). Prenatal yoga should be done regularly every week in order to reduce anxiety and depression in pregnant women.

Keywords: *prenatal yoga, anxiety, pregnant women*

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1. Introduction

Several studies have stated that the level of depression or anxiety during the first trimester of pregnancy was the same as general anxiety, while the level of depression during the second and third trimesters was almost twice from the first trimester.^[1] A previous study in Sweden showed that at 35 weeks of pregnancy, there were 24% of pregnant women experienced anxiety, and 22% experienced depression. In Hong Kong, 54% experienced anxiety during the first to the third trimester, and 37% experienced depressive symptoms. A study in Pakistan also showed that 70%

of pregnant women experience anxiety or depression.^[2,3,4]

Pregnant women with anxiety could influence her self and her baby. Anxiety affecting the hypothalamus to stimulate the endocrine glands that regulate the pituitary gland.^[5] Depression in pregnancy not only directly affecting mothers' physical and mental health but also their babies' development.^[6] Children with depressed mothers were born with lower birth weight, risk of impaired heart rhythm, increased risk of developmental delay and prematurity, increased physiological reactivity, and more behavioral problems in childhood.

[7] Hapisah et al. previous study stated that mothers who had depressive symptoms giving birth to a baby with low birth weight.^[8]

Antidepressant therapy is known to help reduce symptoms of depression, but its safety has been controversial, and it had been the subject of discussion on its effectiveness to date. Antidepressants can increase the risk of postpartum hemorrhage and adversely affect the fetus.^[9] Battle et al. previous study showed that prenatal yoga interventions were good for pregnant women. There were no injuries and problems of safety for pregnant women. Battle et al. stated prenatal yoga significantly reducing depression.^[10] This study was conducted to determine the effect of prenatal yoga on anxiety in pregnant women.

2. Method

A quasi-experimental design was used in this study. The researcher was giving prenatal yoga as an intervention to the case group. Prenatal yoga was administered for a month four times (1 week one time), and anxiety measurements were carried out three times before the intervention and 2 and 4 weeks after intervention. The variable of this study was anxiety in pregnant women. The level of anxiety was measured using the Hamilton anxiety rating scale questionnaire (HARS). The sample was taken using purposive random sampling and obtained 20 respondents for the case group and 20 respondents for the control group—data analysis using the Mann-Whitney U test.

3. Results and Discussion

The following table presents data on pregnant women's anxiety before and after given intervention in prenatal yoga.

Table 1. Distribution of Anxiety in Pregnant Women before Prenatal Yoga

Group	N	Mean Rank	p-value
Case group	20	19.75	0.684
Control gorup	20	21.25	

The results show The average anxiety level in pregnant women in the case group was 19.75 (severe anxiety), and the control group was 21.25 (very severe). It shows no difference between the case and control groups before the treatment was carried out (0.684). Pregnant women are more likely to experience anxiety because of hormonal changes that cause physical and psychological changes.

Physical changes during pregnancy affect the needs of the mother each trimester, both physiologically and psychologically. Some pregnant women happily accept their pregnancies, but some also complain about their pregnancies. Many pregnant women feel confused, easily sad, and cry, even though they do not know the cause. If this condition was neglected, it could disturb the surrounding psychology.^[11] Pregnancy is a maturation crisis that can cause stress, but if the stress can be overcome, women will ready to enter a new phase, namely developing responsibilities and caring for their pregnancy.^[12]

Maimunah's previous study stated that pregnancy anxiety could occur from the first trimester to the third trimester. The anxiety arises due to the pregnancy, the prospective baby, the self, self, and family readiness^[13]

Table 2. Effect of prenatal yoga on maternal anxiety

Groups	N	Mean Rank	p-value
1st Intervention 1: Prenatal yoga once per week for two weeks			
Case Group	20	20.23	
Control Group	20	20.78	0.881
2nd Intervention: Prenatal Yoga Twice for Four weeks			
Case Group	20	14.98	
Control Group	20	26.03	0.003

The analysis shows no significant correlation given prenatal yoga twice a week in reducing anxiety in pregnancy (p-value= 0.881). It also shows that there are no differences between case and control groups. Different when prenatal

yoga was given twice a month, it significantly reduces anxiety (p-value= 0.003). Beddoe et al. stated that prenatal yoga had positive effects on reducing stress, anxiety, and pain during pregnancy. Also, it could help reducing discomfort and pain during labor. [14]

Trikusuma and Suarya's previous study stated that yoga practice frequency reduces anxiety among adolescents. The more often yoga, the lower the anxiety. [15] In the first intervention, in the first two weeks, respondents were still learning, so there is a possibility that some respondents will be interested and vice versa. For beginners, yoga movements would not affect their anxiety instantly. Renityas et al. stated that there were factors that influence the success of acuyoga, such as family support, yoga movements, and an interest. [16]

The second intervention shows an effect on pregnant women. Several studies show a significant impact of prenatal yoga to help reduce various adverse psychological effects of pregnancy such as anxiety, depression, anger, and stress. Yoga also helped in controlling the body, mind, and soul to overcome anxiety. [17, 18, 19, 20, 21]

According to Shindu, practicing yoga during the depression was a big challenge that required strong motivation to begin, especially when practicing alone. When practicing, the mind cannot focus and tends to think about the conflict at hand or something else. Nevertheless, it is precisely at this time that yoga is needed. Doing slow movements and occasionally closing the eyes is beneficial to bring the full mind to the body. When doing yoga, we asked to take deep breathes. It helps in relaxing the body and mind. Meditation is an excellent way when experiencing depression. [20] Battle et al. stated that prenatal yoga would not cause injuries and was safe for pregnant women. Depression rates decreased significantly after practicing prenatal yoga. Research by Field et al. showed yoga could reduce depression, anxiety, anger, back and leg

pain. This technique is more effective in reducing anxiety than the social support received by pregnant women. Besides, cortisol levels decrease with each yoga session. Estriol and progesterone levels decreased after the last session. Gong et al.'s study showed the same results; namely, the level of depression decreased statistically significantly in the yoga group (standard mean difference (SMD), -0.59; 95% confidence interval (CI) -0.94 to -0, 25; p = 0.0007. [22]

The finding of this study shows prenatal yoga once a week for four months affects anxiety. Maharani and Hayati stated that prenatal yoga should be practiced four times in 4 consecutive weeks, and it will help reduce anxiety in facing childbirth (p-value= 0.001). [23]

4. Conclusion

Prenatal yoga practice for two weeks did not affect the anxiety (p-value= 0.881), while practice in 4 weeks was significantly affecting (p-value= 0.003). Pregnant women are advised to do prenatal yoga regularly and continuously to help reduce psychological problems during pregnancy that indirectly can affect fetal development.

The researcher found difficulty getting respondents due to the Covid-19 pandemic so that the research takes a long time.

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