

THE INFLUENCE OF PRENATAL GENTLE YOGA ON THE ANXIETY OF PREGNANT WOMEN TOWARD LABOR

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Abstract. Background : WHO data shows that there are around (10%) pregnant women and (13%) women who have just given birth worldwide experiencing mental disorders trauma depression. Severe anxiety during pregnancy hurts the mother-infant relationship and reduces the mother's ability to play the mother's role. Pregnancy anxiety is proven to be reduced or eliminated through physical exercise.

Objective : Knowing the effect of prenatal gentle yoga on the anxiety of pregnant women facing labor.

Methods : Quasi experimental with Pretest Posttest With Control Group Design. All third trimester pregnant women at BPM Mitsusylawati in October 2022 as many as 20 people with a sampling technique, namely total sampling.

Results : The frequency distribution of pregnant women's anxiety in the intervention group before perinatal gentle yoga was mostly moderate anxiety (53.3%) and afterward most were not anxious 60%. In the control group mostly mild anxiety 86.7%. There is an effect of prenatal gentle yoga on the anxiety of pregnant women facing labor (p.value = 0.000).

Conclusions and Suggestions: There is an effect of prenatal gentle yoga on the anxiety of pregnant women facing childbirth (p.value = 0.000). It is expected that midwives can provide midwifery care to pregnant women with perinatal gentle yoga to reduce anxiety in dealing with childbirth

Keywords: Perinatal Gentle Yoga, Anxiety

1. Introduction

Anxiety and depression in pregnancy is a problem with a fairly high prevalence, which is around (12.5-42%) and it is even estimated that this disorder will become the second biggest cause of illness in 2020 (Putri, 2019). Data from the World Health Organization (WHO) show that around (10%) pregnant women and (13%) women who have just given birth worldwide experience depression-traumatic mental disorders. In China it shows that (20.6%) pregnant women experience anxiety, in Central America-Nicaragua (41%) pregnant women have symptoms of anxiety and (57%) pregnant women experience depression, in Pakistan (70%) pregnant women experience anxiety and depression, in Bangladesh (18%) pregnant women experience depression and (29%) pregnant women experience depression or anxiety, in Sweden (10%) pregnant women experience anxiety, in Malaysia (23.4%) pregnant women experience anxiety and in Indonesia (71.90%) pregnant women experience symptoms of anxiety (Bingan, 2019).

According to Riskesdas data (2018), the maternal mortality rate was 1712 in 2018. Where one of the causes of maternal death is complications during childbirth or during childbirth. One of the causes of complications during childbirth is anxiety/stress that is not handled properly during pregnancy (Aryani et al, 2018).

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Severe anxiety during pregnancy hurts the mother-infant relationship and reduces the mother's ability to play the mother's role. The mother's physical experience of prenatal stress is associated with an increased risk of abortion itself, early delivery, fetal defects, fetal growth retardation and asymmetrical growth of the baby. In addition, high stress in pregnancy increases stress hormones, which can lead to increased blood pressure and decreased birth weight (Putri, 2019).

Mothers who experience anxiety and stress, the signal goes through the Hypothalamo-Pituitary-Adrenal (HPA) which can cause the release of stress hormones including Adreno Cortico Tropin Hormone (ACTH), cortisol and catecholamines. The release of these stress hormones results in systemic vasoconstriction, including constriction of the vasa utero placenta which causes disruption of blood flow in the uterus, so that oxygen transportation to the myometrium is disrupted and results in weak uterine muscle contractions. This incident causes the labor process to take longer (long labor) so that the fetus can experience emergency (fetal distress) (Amalia, et al. 2019).

Anxiety will be felt differently during pregnancy and anxiety in the third trimester is higher than in the previous trimester (Maharani & Hayati 2020), especially for primigravida mothers who are facing pregnancy for the first time, when facing the delivery process they tend to experience anxiety, this is because the birth process is something new what they will experience (Yuniarti & Eliana, 2020).

Pregnancy anxiety is proven to be reduced or eliminated through physical exercise. A form of physical exercise which is a self-help solution is practicing pregnancy exercises which support the process of pregnancy, birth and even childcare which can be done in antenatal classes. One of the pregnancy exercises is yoga. Prenatal gentle yoga is the skill of processing the mind, in the form of a technique for developing a thorough personality both physically, psychologically and spiritually (Yuniarti & Eliana, 2020).

In yoga therapy yoga movements consisting of breathing control, relaxation, meditation and diet are used to get rid of muscular and emotional stress, increase concentration, increase blood oxygen levels and help the body in recovery. Yoga helps with flexibility with muscle strength and teaches pregnant women to listen to their bodies, to reduce stress and calm the mind. Yoga helps improve physical condition, improves quality of life, self-efficacy in childbirth, interpersonal relationships, functions of the autonomic nervous system, provides a sense of comfort, reduces or reduces labor pain, shortens the duration of labor, strengthens the back, abdominal and lower pelvic muscles and facilitates labor. work and childbirth (Puteri, 2019).

Yoga also influences the hypothalamus to suppress CRH secretion which will affect the anterior lobe of the pituitary gland to suppress the release of the hormone ACTH so that the production of adrenal hormones and cortisol decreases and instructs the anterior lobe pituitary gland to release the hormone endorphins. Yoga will inhibit the increase in sympathetic nerves so that the amount of hormones that cause body dysregulation can be reduced. The parasympathetic nervous system gives signals to influence catecholamine release. As a result, there is a decrease in heart rate, breathing rhythm, blood pressure, muscle tension, metabolic rate and production of hormones that cause anxiety or stress (Maharani & Hayati, 2020).

Based on previous research conducted by Sulistiyaningsih & Ana, (2020) it was found that there was a significant effect before and after doing prenatal gentle yoga. Yuniarti and Eliana's research (2020) found that there was an effect of prenatal yoga on the readiness of primigravida mothers in facing childbirth. Yoga exercise is a relaxation technique. Relaxation will inhibit the increase in sympathetic nerves, so that the amount of hormones that cause body dysregulation can be reduced. The parasympathetic nervous system, which has a work function that is opposite to the sympathetic nervous system, will slow down or weaken the work of the body's internal organs. As a result, there is a decrease in heart rate,

breathing rhythm, blood pressure, muscle tension, metabolic rate, and the production of stress hormones.

Based on a preliminary study conducted by researchers in June 2023 through interviews with 10 pregnant women at BPM Mitsusylawati, it was found that 3 people (30%) were pregnant women with high anxiety, 2 people (20%) had low anxiety and 5 people (50%) had anxiety. currently. Anxiety has a negative impact on both mother and baby, one of which is Low Birth Weight Babies (LBW). From the description of the background above, the researcher is interested in conducting research entitled "The effect of prenatal gentle yoga on the anxiety of pregnant women facing childbirth at BPM Mitsusylawati in 2022".

2. Methods

Quasi experimental design with Pretest Posttest With Control Group Design. All third trimester pregnant women at BPM Mitsusylawati in October 2022 totaled 30 people using the sampling technique, namely total sampling. The analytical method used is univariate and bivariate analysis with paired simple t test.

3. Results and Discussion

Table 1 Frequency Distribution of Anxiety Levels of Pregnant Women in the Intervention Group Before and After Performing Perinatal Gentle Yoga

No	Anxiety Levels	Before		After	
		Frequency	Percentage	Frequency	Percentage
1.	No Worries	0	0,0	9	60,0
2.	Mild Anxiety	7	46,7	6	40,0
3.	Moderate Anxiety	8	53,3	0	0,0
4.	Severe Anxiety	0	0,0	0	0,0
	Total	15	100,0	15	100,0

Based on the table above, it can be seen that of the 15 respondents in the intervention group before perinatal gentle yoga, 7 people (46.7%) experienced mild anxiety, and 8 people (53.3%) experienced moderate anxiety. After doing perinatal gentle yoga, most of them were not anxious as many as 9 people (60.0%) and who experienced mild anxiety as many as 6 people (40.0%).

Table 2 Frequency Distribution of Anxiety Levels of Pregnant Women in the Control Group

No	Anxiety Levels	Measurement I		Measurement II	
		Frequency	Percentage	Frequency	Percentage
1.	No Worries	0	0,0	0	0,0
2.	Mild Anxiety	13	86,7	13	86,7
3.	Moderate Anxiety	2	13,3	2	13,3
4.	Severe Anxiety	0	0,0	0	0,0
	Total	15	100,0	15	100,0

Based on the table above, it can be seen that of the 15 respondents in the control group between the first and second measurements, they had the same anxiety, namely the majority with mild anxiety as many as 13 people (86.7%) and moderate anxiety as many as 2 people (13.3%).

Table 3 Average Anxiety Levels for Pregnant Women in the Intervention Group and the Control Group at BPM Mitsusylawati in 2022

Variable	Group	Mean		Std. Deviation		Min - Maks	
		<i>Pre test</i>	<i>Post test</i>	<i>Pre test</i>	<i>Post test</i>	<i>Pre test</i>	<i>Post test</i>
Anxiety	Interventio n	21,40	14,47	2,746	3,681	17-26	9-20
	Control	18,33	18,13	2,664	2,588	15-24	15-24

Based on table 5.3 above, it was found that in the intervention group before perinatal gentle yoga the average anxiety level was 21.40 and after perinatal gentle yoga the average anxiety level was 14.47. In the control group which did not do perinatal gentle yoga, the average anxiety level in the first measurement was 18.33 and in the second measurement was 18.13. The standard deviation value in the pre-test intervention group was 2.746 and 3.681 post-test, while in the control group the pre-test was 2.664 and 2.588 post-test. The minimum-maximum anxiety in the intervention group was 17-26 pre-test and 9-20 post-test, while in the control group the minimum-maximum pre-test values were 15-24 and 15-24 post-test.

DISCUSSION

From the change in anxiety test in the intervention group with perinatal gentle yoga treatment using the paired sample t-test, the results obtained had a significant value of 0.000 (<0.05). These results mean that there is a change in anxiety before and after perinatal gentle yoga at BPM Mitsusylawati in 2022. The mean difference column shows that pregnant women who are given perinatal gentle yoga show a decrease in anxiety. Meanwhile, pregnant women in the control group who were not given perinatal gentle yoga treatment showed no change in anxiety with a p.value of 0.082. From the data above, it can be concluded that there is an influence of prenatal gentle yoga on the anxiety of pregnant women facing childbirth.

Anxiety is an emotional state characterized by physiological arousal, unpleasant feelings of tension, and feelings of prejudiced fear (hunches). Anxiety for pregnant women can arise because of the long period of waiting for birth full of uncertainty. In addition, images of scary things during the birth process, even though what is imagined may not necessarily happen. This situation causes drastic changes, not only physically but also psychologically (Aswitami, 2017).

Prenatal gentle yoga is a modification of hatha yoga that is adapted to the conditions of pregnant women. This yoga is done with a softer, slower intensity and by combining movements that link breathing and relaxation so that pregnant women feel healthy, fresh, comfortable, calm, relaxed, peaceful, and happy and ready for easy, gentle birth, minimal trauma. and a faster self-recovery phase (Ariyanti, 2020).

Prenatal yoga is an activity for pregnant women that not only trains physically but also conditions psychologically so that mothers are healthy and comfortable. The use of aromatherapy during prenatal yoga can help pregnant women relax, thereby reducing anxiety levels. This is because aromatherapy contains the chemical linalyl ester which has

calming properties and provides an anti-neuro-depressive effect which is able to relax and relax the working system of tense nerves and muscles (Sari and Leonard, 2018).

The progressive relaxation technique is a series of prenatal yoga movements, it is intended that pregnant women can relax themselves, especially when facing conditions that cause stress or anxiety for mothers, such as when facing birth. The effect of progressive relaxation techniques can make a person more relaxed and this technique is also used to control anxiety (Mariyana, 2019)

The results of Eline Charla S. Bingan's research (2019) said that this shows that there is an effect of prenatal yoga on anxiety in third trimester pregnant women seen from the value of the P value with a value of 0.000, which means that the value is <0.05 . The results of this study are also supported by the results of Sri Maharani's research (2020) which says that there is an effect of prenatal gentle yoga on pregnant women's anxiety in facing labor with a p-value <0.001 (95% CI).

According to the researchers' assumptions from the results of the study in the intervention group, the p value was obtained. value 0.000 which means there is a perinatal gentle yoga effect on reducing anxiety in pregnant women in facing labor. This is because pregnant women who participate in perinatal gentle yoga get peace because when doing yoga, the hypothalamus will affect the autonomic nervous system, namely reducing sympathetic nerve activity and increasing parasympathetic nerve activity. Yoga will inhibit the increase in sympathetic nerves so that the amount of hormones that cause body dysregulation can be reduced. The parasympathetic nervous system signals to influence catecholamine release. As a result, there is a decrease in heart rate, breathing rhythm, blood pressure, muscle tension, metabolic rate, and the production of hormones that cause anxiety or stress. So it can be concluded that prenatal gentle yoga can reduce anxiety levels in third trimester pregnant women. Through prenatal gentle yoga, pregnant women have been prepared both physically and mentally in the form of knowledge and techniques to reduce anxiety in dealing with pregnancy and delivery. For pregnant women in the control group the statistical test results showed a p value. value 0.081 which means there is no change in the level of anxiety, this is because pregnant women in the control group did not receive any treatment so that the anxiety level of pregnant women did not change. From the above results it can be concluded that perinatal gentle yoga can effectively reduce anxiety in pregnant women in facing labor.

4. Conclusions

The frequency distribution of pregnant women's anxiety in the intervention group before perinatal gentle yoga was mostly moderate anxiety (53.3%) and afterward most were not anxious 60%. The distribution of the frequency of anxiety of pregnant women in the control group is mostly mild anxiety, 86.7%. There is an effect of prenatal gentle yoga on the anxiety of pregnant women facing labor (p.value = 0.000).

References

- Aryani, R. Z., Handayani, R., Handayani, R., & Susilowati, D. (2018). Pengaruh Pelaksanaan Prenatal Gentle Yoga Terhadap Kecemasan Menjelang Persalinan Pada Ibu Hamil Primigravida Trimester III Di Klinik Bidan Kita Klaten. *Jurnal Kebidanan Dan Kesehatan Tradisional*, 3(2), 78–83. <https://doi.org/10.37341/jkkt.v3i2.85>
- Ariyanti Titik, (2020). Prenatal Gentle Yoga. <https://www.rsmardirahayu.com /prenatal-gentle-yoga/>
- Amalia Riza, R. dan D. R. Y. (2019). *Jurnal sains kebidanan*. Prenatal Yoga Terhadap Tingkat Kecemasan Primigravida Trimester III, 1(1), 25–29.
- Aswitami, N. G. A. P. (2017). Pengaruh Yoga Antenatal terhadap Tingkat Kecemasan pada Ibu Hamil Tw III dalam Menghadapi Proses Persalinan Di Klinik Yayasan Bumi Sehat. *Jurnal Kesehatan Terpadu*, 1(1).
- Bingan, E. C. S. (2019). Pengaruh Prenatal Gentle Yoga dalam Menurunkan Tingkat Kecemasan pada Ibu Hamil Trimester III. *Jurnal Kesehatan*, 10(3), 466. <https://doi.org/10.26630/jk.v10i3.1505>
- Hawari, D. (2018). *Manajemen stres, cemas, dan depresi*. Ed 1. Cetakan 4. FKUI, Jakarta.
- Maharani, S., & Hayati, F. (2020). Pengaruh Prenatal Gentle Yoga Terhadap Tingkat Kecemasan Ibu Hamil Menghadapi Persalinan. *Jurnal Endurance*, 5(1), 161. <https://doi.org/10.22216/jen.v5i1.4524>
- Mariyana, R. (2019) “Efektivitas Teknik Relaksasi Progresif Dalam Mengurangi Kesulitan Tidur Pada Remaja,” *Jurnal Endurance*, 4(1), hal. 80. doi: 10.22216/jen.v4i1.3589.
- Putri, M. (2019). Pengaruh Yoga Terhadap Kecemasan Ibu Hamil Primigravida Trimester III di Puskesmas Rawang Pasar IV Kecamatan Rawang Panca Arga Kabupaten Asahan Tahun 2019. *Excellent Midwifery Journal*, 8(5), 55
- Sari, D. dan Leonard, D. (2018) “Pengaruh Aroma Terapi Lavender Terhadap Kualitas Tidur Lansia Di Wisma Cinta Kasih,” *Jurnal Endurance*, 3(1), hal. 121. doi: 10.22216/jen.v3i1.2433.
- Yuniarti dan Eliana. (2020). Pengaruh Senam Prenatal Yoga Terhadap Kesiapan Ibu Primigravida Dalam Menghadapi Persalinan di BPM Kota Bengkulu. *Jurnal Media Kesehatan*, Volume 13 Nomor 1, Juni 2020, hlm. 09-17
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