

The Effect of Prenatal Yoga on Pregnant Women's Anxiety in Facing Labour

Ayu Syafa Atunisa¹, Suprihatin¹, Jenny Anna Siauta¹

¹ Faculty of Health Sciences, Universitas Nasional, Indonesia

Correspondence should be addressed to:
Suprihatin
Suprihatin@civitas.unas.ac.id

Abstract:

Anxiety is one form of psychological change in pregnant women. Pregnant women are vulnerable to mental health problems because of the changes they experience at various stages which affect their mental health. The anxiety level of pregnant women can be reduced with non-pharmacological measures, namely prenatal yoga. This study aims to determine the effect of prenatal yoga on the anxiety of third trimester primigravida pregnant women facing labor at TPMB Lina Rosiana, East Jakarta. This research method uses a quasi-experiment with a pre-test and post-test with a control group design. The sample in this study consisted of 34 third trimester primigravida pregnant women who were divided into 2 groups, namely 17 control groups and 17 experimental groups. Samples were taken using purposive sampling. The pain assessment instrument used is the anxiety skinning questionnaire, namely PASS, which has been proven valid and reliable. Data were analyzed using the Paired t-test to determine differences in anxiety within one group and the independent t-test to determine differences in anxiety between groups. The results of the study showed that there was a difference in the level of anxiety in the experimental group before and after being given prenatal yoga, with a P-value of 0.000 and there was a difference in the level of anxiety between the experimental group and the control group with a p-value of 0.000.

Article info:

Submitted:
08-02-2024
Revised:
18-03-2024
Accepted:
19-03-2024

Keywords:

anxiety; primigravida; third trimester; prenatal yoga

DOI: <https://doi.org/10.53713/htechj.v2i2.163>

This work is licensed under CC BY-SA License.



INTRODUCTION

Anxiety is a feeling of doubt or ambiguity that arises when someone experiences stress so that these feelings cannot be resolved (Maharani et al., 2022). Anxiety is one form of psychological change in pregnant women. Pregnant women are vulnerable to mental health problems because of the changes experienced at various stages that affect their mental health (Glover, 2020). The anxiety experienced by patients is a psychological symptom that appears when a person is faced with a certain situation or situation (Kurniyawan et al., 2023). Anxiety provides negative experiences during pregnancy and childbirth, increases the risk of preeclampsia during pregnancy, reduces breast milk production, increases the risk of postpartum depression, and reduces the ability to perform the role of mother. The effects for babies are IUGR, prematurity, congenital abnormalities, stillbirth, and IUFD (Arfiyanti, 2022).

According to the World Health Organization (WHO), worldwide 10% of pregnant women and 13% of new mothers experience mental disorders. It is even higher in developing countries, namely, 15.6% during pregnancy and 19.8% after giving birth. Mental disorders can have a negative impact on mothers and babies (WHO, 2023).

According to Basic Health Research (2018), based on psychiatric disorder screening data with the Self Reporting Questionnaire-20 (SRQ-20), the prevalence of mental and emotional disorders in the Indonesian population in 2018 was 9.8%. The prevalence of emotional mental disorders in residents aged over 15 years in DKI Jakarta in 2013 was 6% and increased to 10% in 2018 (Kemenkes RI, 2018).

In a preliminary study at TPMB Lina Rosiana, East Jakarta, through assessment of third-trimester primigravida pregnant women, there were 7 out of 10 pregnant women who felt worried about themselves and the condition of their babies, especially nearing the due date.

The anxiety level of pregnant women can be reduced with non-pharmacological measures, namely prenatal yoga. Prenatal yoga can stabilize the emotions of pregnant women, strengthen determination and courage, strengthen self-confidence and focus, and build positive affirmations and strength of mind during childbirth (Pratigny, 2014). The anxiety level of pregnant women before participating in prenatal yoga decreased after participating in prenatal yoga once a week for two weeks (Arlym & Pangarsi, 2021). The research results of Amalia et al. (2018) show that prenatal yoga given once a week for four weeks with a duration of 60 minutes affects reducing anxiety in third-trimester pregnant women. This study aims to determine the effect of prenatal yoga on the anxiety of third-trimester primigravida pregnant women facing labor at TPMB Lina Rosiana, East Jakarta.

METHOD

This research uses quantitative methods and a quasi-experiment study with a non-equal control group design; this design has two groups: the intervention group and the control group. The experimental group was the group that was given prenatal yoga training, while the control group was the group that received standard ANC.

The population in this study comprised all third-trimester pregnant women who underwent pregnancy checks at TPMB Lina Rosiana, East Jakarta, for the period September-November 2023, namely 37 people. The sample in this study is the same as the total population, namely 37 people, with a purposive sampling technique. The number of samples that met the inclusion criteria at the time of data collection was 34 people: 17 people in the experimental group and 17 in the control group. This research was conducted at TPMB Lina Rosiana, East Jakarta. The research was conducted from December 2023 to January 2024.

Data analysis was carried out first by conducting a normality test with Shapiro-Wilk. Then, a paired t-test was carried out to determine the level of anxiety before and after the intervention. Then, an independent t-test was carried out to determine the differences between the groups who did prenatal yoga and those who did not.

Data collection procedures explain the stages that will be carried out in conducting research, starting from preparation and data collection to data analysis. The researcher explained the course of the research, including preparing material and supporting theoretical concepts; conducting preliminary studies at TPMB Lina Rosiana; consulting with supervisor 1 and supervisor 2; taking care of a research permit letter from a Nasional University with number 497/D/SP/FIKES/X/2023 and obtain a permit letter from the research site. Data collection is preceded by sample selection, collecting data from samples, and processing and analyzing research data by editing and coding. This research has undergone an ethical test through the health research ethics committee of the Muhammadiyah University of Purwokerto, with registration number KEPK/UMP/66/XII/2023.

RESULT

Univariate Analysis

Table 1. Average Anxiety of Pregnant Women Before and After Prenatal Yoga

Group	N	Min	Max	Mean	SD
Pretest on experiment group	17	30	42	36.24	3.509
Posttest on experiment group	17	20	31	25.24	3.750

Based on Table 1, the average anxiety score of 17 pregnant women before doing prenatal yoga was 36.24, with a minimum score of 30, a maximum score of 42, and a standard deviation of 3.509. The average anxiety score of 17 pregnant women after doing prenatal yoga was 25.24, with a minimum score of 20, a maximum score of 31, and a standard deviation of 3.750.

Table 2. Average Anxiety of Pregnant Women Before and After Standard ANC

Group	N	Min	Max	Mean	SD
Pretest on control group	17	26	45	34.94	5.437
Posttest on control group	17	28	40	33.65	3.656

Based on Table 2, the average anxiety score of 17 pregnant women before standard ANC was 34.94, with a minimum score of 26, a maximum score of 45, and a standard deviation of 5.437. The average anxiety score after standard ANC is 33.65, with a minimum score of 28, a maximum score of 40, and a standard deviation of 3.656.

Bivariate Analysis

Table 3. Paired Sample T-Test Result

Group	Pretest		Posttest		Mean Difference	p-value
	Mean (M)	SD	Mean (M)	SD		
Experiment	36.24	3.509	25.24	3.750	11	0.000
Control	34.94	5.437	33.65	3.656	1.29	0.218

Table 3 shows the effect of prenatal yoga on reducing the anxiety of pregnant women in facing childbirth with a p-value of 0.000 (<0.05), with the average anxiety score before doing prenatal yoga being 36.24, the average anxiety score after doing prenatal yoga was 25.24 and the standard deviation was 3.750. The paired t-test results on mothers who had standard ANC showed that the p-value was 0.218, meaning that there was no effect of giving standard ANC on reducing the anxiety of pregnant women in handling childbirth.

Table 4. Independent T-Test Result

Group	Experiment		Control		Mean Difference	p-value
	Mean (M)	SD	Mean (M)	SD		
Pretest	36.24	3.509	34.94	5.437	1.3	0.417
Posttest	25.24	3.750	33.65	3.656	8.41	0.000

The results of the Independent T-Test showed that the average anxiety score of pregnant women who did prenatal yoga was 25.24, smaller than the average anxiety score of pregnant women who were given standard ANC, namely 33.65, with a p-value of $0.000 < 0.05$. This means that there is a difference in the level of anxiety between pregnant women who do prenatal yoga and pregnant women who do standard ANC.

DISCUSSION

Based on the research result, before pregnant women do prenatal yoga, on average, they experience moderate anxiety, with an average anxiety score of 36.24. After doing prenatal yoga, they experienced mild anxiety, with an average anxiety score of 25.24. Analytically, this shows that the anxiety levels of pregnant women before and after doing prenatal yoga have a significant difference. The way to overcome anxiety is with relaxation techniques such as yoga and relaxation. Relaxation techniques can divert attention from anxiety and calm the mind (Bantara, 2023).

The results of this research are also strengthened by research by Novelia et al. (2019), who stated that yoga relaxation affected reducing the anxiety level of pregnant women in the third trimester, where based on the research results, there was a significant difference in the level of anxiety before and after the yoga intervention twice in the experimental group ($p=0.005$) (Novelia et al., 2019).

Based on the research results, there is an effect of prenatal yoga on reducing the anxiety of pregnant women in handling childbirth with a p-value of $0.000 (<0.05)$, meaning that there is an influence on the level of anxiety before and after doing prenatal yoga, with the average anxiety score before exercise being 36.24. The average anxiety score after training, namely post-test, was 25.24.

The anxiety level of pregnant women can be reduced with non-pharmacological measures, namely prenatal yoga. Prenatal yoga exercises focus on breathing rhythm, prioritizing safety, and comfort so that it can be beneficial for pregnant women. Prenatal yoga is a type of exercise for the mother's body, mind, and mental health, which can help calm the mind, especially in the third trimester (Yuniza et al., 2021). In line with research by Arlym and Pangarsi (2021), it was proven that the average anxiety of pregnant women before participating in prenatal yoga decreased after participating in prenatal yoga twice, one week apart (Arlym & Pangarsi, 2021).

Based on the research results, for pregnant women who have done prenatal yoga, the average anxiety figure is 25.24, smaller than the average anxiety in the group of pregnant women who have done standard ANC, namely 33.65 with a p-value of $0.000 < 0.05$. This means that there is a difference in the level of anxiety between the group of pregnant women who do prenatal yoga and the group of pregnant women who do standard ANC.

The results of this study are in line with Putri (2019), proving that there was a significant decrease in the average anxiety score between the pretest and posttest in the intervention group with a p-value of $0.000 (p<0.05)$, while the average decrease in anxiety score in control has a p-value of $0.092 (p>0.05)$, so there was no significant decrease. There was a significant difference in the average anxiety score of third-trimester primigravid pregnant women between the intervention and control groups with a p-value of $0.012 (p<0.05)$ (Putri, 2019).

CONCLUSION

The average anxiety of third-trimester primigravid pregnant women before doing prenatal yoga is moderate; after doing prenatal yoga, most pregnant women experience mild anxiety. There

is an influence of prenatal yoga on the anxiety of third-trimester primigravida pregnant women facing labor. There is a difference in anxiety levels between pregnant women who do prenatal yoga and pregnant women who do standard ANC.

Every pregnant woman should undergo an anxiety examination at least once during pregnancy because anxiety disorders that are not treated properly can have a bad impact during pregnancy and even after giving birth.

Researchers recommend that every midwife encourage pregnant women to take part in prenatal yoga to help reduce anxiety.

ACKNOWLEDGEMENT

Thank you to all lecturers and staff members of the Faculty of Health Sciences, National University, and my supervisor, Dra. Suprihatin, M.Si., and Jenny Anna Siauta, SST., M.Keb, who has helped and provided advice and direction in completing my research.

CONFLICT OF INTEREST

There is no conflict of interest in this research.

REFERENCES

- Arfiyanti, A. (2022). *Deteksi Dini Kecemasan Ibu Hamil*. Pustaka Rumah Cinta.
- Arlym, L. T., & Pangarsi, S. (2021). THE EFFECT OF PRENATAL YOGA ON ANXIETY DURING LABOR IN 2 nd AND 3 rd TRIMESTER OF PREGNANT WOMEN IN JEANNE'S MIDWIFE CLINIC. *Jurnal Ilmiah Kesehatan Dan Kebidanan*, X, 11.
- Bantara, B. (2023). *Cara Sukses Menaklukkan Kecemasan*. Bagas Bantara.
- Glover, V. (2020). Prenatal mental health and the effects of stress on the foetus and the child. Should psychiatrists look beyond mental disorders? *World Psychiatry*, 19(3), 331–332. <https://doi.org/10.1002/wps.20777>
- Kemenkes RI. (2018). *Riset Kesehatan Dasar*. https://kesmas.kemkes.go.id/assets/uploads/contents/others/LAKIP_DIT_KESWA_TA_2022_cover_rev.pdf
- Kurniyawan, E., Kartika, P. D. P., Siswoyo, Wantiyah, Murtaqib, Deviantony, F., & Fitria, Y. (2023). Perioperative Health Education Improves Coping Mechanisms in Preoperative Cataract Patients. *Health and Technology Journal (HTechJ)*, 1(1), 9–15. <https://doi.org/10.53713/htechj.v1i1.2>
- Maharani, F. A., Ikhtiarini Dewi, E., & Hadi Kurniyawan, E. (2022). The Correlation of Peer Social Support with Anxiety Levels of Students Working on Undergraduate Thesis at The Faculty of Nursing, University of Jember. *Nursing and Health Sciences Journal (NHSJ)*, 2(1), 56-62. <https://doi.org/10.53713/nhs.v2i2.92>
- Novelia, S., Sitanggang, T. W., & Lutfiyanti, A. (2019). The Effect of Yoga Relaxation on Anxiety Levels among Pregnant Women. *Nurse Media Journal of Nursing*, 8(2), 86. <https://doi.org/10.14710/nmjn.v8i2.19111>
- Pratigny, T. (2014). *Yoga Ibu Hamil*. Pustaka Bunda.
- WHO. (2023). *Maternal Mental Health*. <https://www.who.int/teams/mental-health-and-substance-use/promotion-prevention/maternal-mental-health>

Yuniza, Y., Tasya, T., & Suzanna, S. (2021). Pengaruh Prenatal Yoga Terhadap Kecemasan Pada Ibu Hamil Trimester III Di Kecamatan Plaju. *Jurnal Keperawatan Sriwijaya*, 8(2), 78–84. <https://doi.org/10.32539/jks.v8i2.15951>