

THE EFFECTIVENESS OF PRENATAL YOGA BAHYA PRANAYAMA ON REDUCING ANXIETY IN PREGNANT WOMEN IN SOUTH TANGERANG

Dewi Susanti, Wida Wisudawati

Diploma III of Midwifery Academy, Karya Bunda Husada

ABSTRACT

Background: In pregnant women, experience of stress and anxiety during the third trimester of pregnancy may increase the release of stress hormones that cause disruption of blood flow to uterus which can lead to various complications. Prenatal yoga Bahya Pranayama is a breathing exercise that is practiced to control the emotions of pregnant women. This study aimed to examine the effectiveness of prenatal yoga Bahya Pranayama on anxiety in pregnant women.

Subjects and Method: A randomized controlled trial (RCT) was conducted at Jombang community health center, South Tangerang, Indonesia, from July to August 2020. A total of 160 third semester pregnant women was allocated randomly into the intervention group (n= 22) and control group (n= 22). The intervention group obtained prenatal Bahya Pranayama yoga one time per day for two weeks. The dependent variable was anxiety level. The independent variable was prenatal yoga Bahya Pranayama. The anxiety level variable was measured by Zung-Self Rating Scale (ZSAS) questionnaire. The data were analyzed using independent t-test.

Results: After intervention, the average anxiety level of third trimester pregnant women in prenatal Bahya Pranayama yoga group (Mean= 6.00; SD= 3.59) was lower than that in control group (Mean= 9.63; SD= 4.79), and it was statistically significant (p= 0.007).

Conclusion: Prenatal Bahya Pranayama yoga significantly reduces the anxiety level in third trimester pregnant women.

Keywords: prenatal Bahya Pranayama yoga, anxiety, pregnant women

Correspondence:

Dewi Susanti. Midwifery Program Diploma III, Midwifery Academy of Karya Bunda Husada. Jl. Imam Bonjo, Bojong Jaya, Karawaci, Tangerang, Banten, Indonesia. Email: zafrinadewi@gmail.com. Mobile: 085213230340.

BACKGROUND

Anxiety in pregnant women will increase when the delivery schedule is getting closer, namely entering the third trimester, the mother begins to think about the birth process and the condition of the baby to be born. Mothers who suffer from stress and anxiety during the third trimester of pregnancy will experience an increase in the release of stress hormones, causing disruption of

blood flow to the mother and in the womb which can lead to various complications (Zuhrotunida., et al. 2017).

The incidence of hypertension in pregnant women in South Tangerang was quite high in 2019 from the data obtained that 263 pregnant women had a history of hypertension. There are 2 factors that influence hypertension, namely risks that cannot be controlled such as here-

dity, gender, race and age. While the risk factors that can be controlled such as stress, obesity, drinking alcohol, smoking, lack of exercise. Both of these factors can trigger hypertension (Pevi, 2017).

Several developing countries in the world are at high risk of psychological disorders in pregnant women. As many as 81% of women in the United Kingdom have experienced psychological disorders during pregnancy. In Indonesia, there are 373,000,000 pregnant women, and there are 107,000,000 pregnant women (27.7%) who experience anxiety in dealing with the delivery process.

From the results of research conducted by Suya (Suyati, et al., 2011) in the village of Sambirejo Jogoroto regarding the relationship between knowledge of pregnant women about the birth process and a decrease in anxiety levels facing the labor process, it was found that from a sample of 48 pregnant women, 29 mothers experienced mild anxiety. (60.4%), 6 mothers experienced moderate anxiety (12.5%), and 13 mothers experienced severe anxiety (27.1%) (Sopiah, 2018).

In 2013 at the Pamulang Public Health Center, South Tangerang City, the incidence of pregnant women experiencing anxiety was still high, namely 85% of 52 pregnant women who experienced anxiety (Pevi, 2017).

Shiraishi et al (2016) stated that mental health including pregnancy anxiety has been proven to be reduced or eliminated through physical exercise (physical exercise) and

this needs to be promoted. One of the recommended physical exercises is yoga because it is low cost, easy to do and very beneficial for physical and psychological fitness (Zuhrotunida, 2017).

Yoga is more effective in reducing anxiety and depression in normal pregnancy (Davis et al., 2015). Yoga can reduce stress, improve quality of life, self-efficacy in childbirth, interpersonal relationships, function of the autonomic nervous system, provide a sense of comfort, reduce or decrease labor pain and shorten the duration of labor (Rusmiati, 2015).

The results of a preliminary study at the Jombang Regional Health Center, South Tangerang City from 12 pregnant women, there were 7 pregnant women (5.3%) who experienced anxiety in the third trimester. Based on the above background, the formulation of the problem is how effective is prenatal Yoga on anxiety levels in third trimester pregnant women? The purpose of this study was to determine the effectiveness of prenatal yoga *bahya pranayama* on anxiety levels in third trimester pregnant women.

SUBJECTS AND METHOD

1. Study Design

This was a Randomized Controlled Trial (RCT) conducted in the Jombang Health Center, South Tangerang, from July to August 2021.

2. Population and Sample

The population in this study were all third trimester pregnant women in the Jombang Health Center area,

South Tangerang City in the month of 160 pregnant women.

The sample used in the study was 44 pregnant women consisting of 22 pregnant women as a group that did prenatal yoga bahya pranayama (intervention group) and 22 pregnant women as a group that did not do bahya pranayama yoga (control group). The inclusion criteria were (1) third trimester pregnant women with gestational age of 28 to 36 weeks, and (2) no history of chronic disease or complications in pregnancy.

3. Variable

The dependent variable is the level of anxiety in third trimester pregnant women. The independent variable is pre-natal yoga bahya pranayama.

4. Operational Definition

The level of anxiety in third trimester pregnant women is the value of the level of anxiety measured using the ZSAS (Zung-Self Rating Scale) questionnaire which was measured before and after the prenatal yoga bahya pranayama intervention.

5. Instrument

Data was collected by filling out questionnaires before (pretest) and after (posttest) the implementation of

prenatal yoga bahya pranayama in the intervention group for 2 weeks with a duration of 1 time greeting one day. And it was carried out in the control group (not doing bahya pranayama yoga) which aims to determine the level of anxiety in pregnant women.

6. Analysis Data

Univariate analysis was performed with frequency distribution and percentage. Bivariate analysis was tested by independent t test.

RESULTS

Based on table 2, it is known that the decrease in anxiety levels in third trimester pregnant women was more common in the post-intervention group (mean= 6.00; SD = 3.59) where the group had been given prenatal yoga bahya pranayama intervention compared to the post-control group (mean= 9.64; SD= 4.79). Based on Table 3, it is known that from the results of the independent sample test that the $p = 0.007$, it can be concluded that there is a significant difference between the level of anxiety in the group carrying out prenatal yoga bahya pranayama and the control group.

Table 1. Sample Characteristics

Characteristics	Category	Total	Intervention group	Control Group	Percentage
Age	<20 or >35	6	4	2	13.6%
	20 to 35	38	18	20	86.4%
Occupation	Housewife	39	20	19	88.6%
	Employee	5	2	3	11.4%
Education	JHS	4	1	2	9.1%
	SHS	34	19	16	77.3%
	Bachelor degree	6	2	4	13.6%
History of pregnancy	With trauma	7	4	3	15.9%
	No trauma	37	18	19	84.1%
Family Support	Support	43	21	22	97.7%
	Not support	1	1	0	2.3%

Table 2. Description of anxiety levels in pregnant women with and without Prenatal Yoga Bahya Pranayama in third trimester pregnant women

Level of Anxiety	N	Mean	SD	Min.	Max.
Pre Intervensi	22	11	6.37	3	25
Post Intervensi	22	6	3.59	1	13
Pre Kontrol	22	9.59	4.77	1	18
Post Kontrol	22	9.63	4.79	1	17

Table 3. Effectiveness of Prenatal Yoga Bahya Pranayama on anxiety levels in third trimester pregnant women

Level of Anxiety	N	Mean	SD	p
Intervention Group	22	6.00	3.59	0.007
Control Group	22	9.64	4.79	

Based on Table 3, it is known that from the results of the independent sample test that the $p = 0.007$, it can be concluded that there is a significant difference between the level of anxiety in the group carrying out prenatal yoga bahya pranayama and the control group.

DISCUSSION

Based on the results of the study, it can be seen that there was a significant decrease in anxiety levels in the group of pregnant women who did prenatal yoga bahya pranayama ($p = 0.007$).

This also shows a conformity with the theory which states that yoga is more effective in reducing anxiety and depression in normal pregnancy, yoga can reduce stress, improve quality of life, self-efficacy in childbirth, interpersonal relationships, autonomic nervous system function, provide a sense of comfort, reduce or reduce labor pain and shorten the duration of labor (Kemenkes, 2016).

The yoga pregnancy exercise contains a relaxing effect that can stabilize the emotions of pregnant

women, because the yoga movement focuses attention on the rhythm of the breath, prioritizing comfort and safety in practicing so that it provides many benefits (Khalajzadeh et al., 2012).

In addition, yoga practice is a physical treatment that turns out to also have a psychological effect because it has a relaxing effect on one's body and affects several psychological aspects of the person who does it, so it is said to help reduce anxiety (Sena, 2019).

Yoga bahya pranayama is the most important element in doing yoga to practice breathing techniques that can be done by pregnant women in the third trimester, which has the benefits of long and deep breathing that can be a sedative for nerves (Er, 2015).

This study is in line with Khalajzadeh's 2015 study which showed that yoga practice in the third trimester had a positive impact on women's anxiety. In addition, research conducted by Larasati and Sumiatik suggests that there is a significant relationship between pregnant women who do yoga exercise and

decreased anxiety during pregnancy (Sumiatik, 2016).

From the results of Ashari's research (2019), it was also found that there is a difference in the average calculation of anxiety levels at the beginning and end of the study ($p < 0.001$), while in the control group, a significance value of 0.162 ($p > 0.05$) is obtained so it is not there are differences in anxiety in the control group. And on the Mann Whitney U Test. Before the intervention, a significance value of 0.634 was obtained, meaning that there was no difference in the mean level of anxiety between the intervention group and the control group, but after the intervention, the significance value was < 0.001 , meaning that there was a difference in the mean level of anxiety. significant anxiety between the prenatal yoga intervention group and the control group.

Based on the research data that the researchers have done, it can be concluded that there is a significant difference between the decrease in anxiety levels in third trimester pregnant women who do prenatal yoga bahya pranayama and groups who do not do bahya pranayama yoga. It is hoped that Pre-natal Yoga Bahya Pranayama can be an alternative to non-pharmacological complementary midwifery services to reduce anxiety levels in third trimester pregnant women.

FUNDING AND SPONSORSHIP

This research fund comes from DIPa, the directorate general of higher education, the ministry of education,

culture, research and technology for the 2021 fiscal year.

ACKNOWLEDGEMENT

Acknowledgments to: directorate general of higher education, Karya Bunda Husada Foundation, Director of AKBID Karya Bunda Husada, LPPM AKBID Karya Bunda Husada.

CONFLICT OF INTEREST

There is no conflict of interest in this study.

REFERENCES

- Ashari, Sura PG, Mikhrunnisai A (2019). Pengaruh senam prenatal yoga terhadap penurunan kecesamasan ibu hamil trimester III (The effect of prenatal yoga on reducing anxiety in third trimester pregnant women). Jurnal media kesehatan masyarakat Indonesia. 15(1): 55-62.
- Davis K, Goodman SH, Leiferman J, Taylor M, Dimidjian S (2015). Complementary therapies in clinical practice a randomized controlled trial of yoga for pregnant women with symptoms of depression and anxiety. Complement Ther Clin Pract. 21(3):166-72. <https://doi.org/10.1016/j.ctcp.2015.06.005>.
- Kementrian Kesehatan Republik Indonesia (2016). Asuhan kebidanan kehamilan Jakarta: Kementrian Kesehatan.
- Khalajzadeh M, Shojaei M, Mirfaizi M (2012). The effect of yoga on anxiety among pregnant women in second and third trimester of pregnancy. Eur J Sport Sci. 1(3): 85-89.

- Pevi P, Wagiyo, Elisa (2017). Hubungan pendampingan suami dengan tingkat kecemasan ibu primigravida dalam menghadapi proses persalinan kala I (The relationship between husband's assistance and the level of anxiety of primigravida mothers in facing the first stage of labor). PPNI Jawa Tengah.
- Rusmiati E (2015). Pengaruh senam hamil yoga terhadap kesiapan ibu hamil menghadapi persalinan (The effect of yoga pregnancy exercise on the readiness of pregnant women to face childbirth). Jurnal keperawatan BSI. 15(1): 1-8.
- Sena (2019). Pranayama sebagai praktik dalam mencegah virus (Pranayama as a practice in preventing viruses). Jurnal yoga dan kesehatan. 3(1): 1-12.
- Shiraishi A, Yoshimura Y, Wakabayashi H, Tsuji Y (2016). Prevalence of stroke-related sarcopenia and its association with poor oral status in post-acute stroke patients: Implications for oral sarcopenia Clin Nutr. 37(1):204-207. doi: 10.1016/j.clnu.2016.12.002.
- Sophia, Septriliyana N, Nuzulmi A (2018). Efektifitas yoga pranayama terhadap penurunan kecemasan ibu hamil trimester III (The effectiveness of pranayama yoga on reducing anxiety in third trimester pregnant women). PIN-LITAMAS. 1(1): 432-439.
- Sumiatik (2016). Hubungan melakukan senam yoga dengan mengurangi kecemasan pada kehamilan trimester III (The relationship between doing yoga and reducing anxiety in the third trimester of pregnancy). Jurnal Maternal dan Neonatal USM. 1(1): 8-14.
- Suyati, Ninik, A, Siti RA (2011). Hubungan Pengetahuan Ibu Hamil tentang Proses Persalinan dengan Tingkat Kecemasan Menghadapi Persalinan (The Relationship of Pregnant Women's Knowledge of the Labor Process with Anxiety Levels Facing Childbirth). FIK UNIPDU.
- Zuhrotunida Z, Yudiarto A (2017). Hubungan dukungan keluarga dengan kecemasan ibu hamil menghadapi proses persalinan (The relationship between family support and the anxiety of pregnant women facing the delivery process). Jurnal JKFT. 2(2): 60-70.