

THE EFFECT OF PRENATAL YOGA ON REDUCING ANXIETY IN TRIMESTER III PREGNANT WOMEN: A NARRATIVE REVIEW

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Abstract

Anxiety is a common reaction and the inability to deal with problems, can happen to anyone, including third trimester pregnant women who are facing labor. The impact caused by the victim, namely postpartum depression, premature delivery, and behavioral disorders in children (baby blues). One of the non-pharmacological techniques to reduce it is prenatal yoga. Prenatal yoga has a positive impression for pregnant women which reduces stress, discomfort, pain during pregnancy, and reduces labor pain. This study aims to determine the effect of prenatal yoga on reducing anxiety in third trimester pregnant women. The type of literature review used a narrative review, and the approach used in the search for articles using PICO. Search for articles was carried out using the Google Scholar, PubMed, Sciencedirect, EBSCO, and National Library databases. The search results for articles from all of these databases were 9,338, but after being selected with inclusion and exclusion criteria, 8 journals were obtained for review. From the 8 journals selected, the average respondent showed a decrease in the anxiety scale. From the results of a review of 8 selected journals, it was explained that there was an effect of prenatal yoga on reducing anxiety in pregnant women, with an average p-value of 0.000 ($p < 0.05$). The duration of effective prenatal yoga was 2 times a week and the types of effective exercises were deep breathing techniques, stretching muscles, and meditation.

Keywords: Anxiety, Gymnastic, Pregnant women, Prenatal, Third Trimester, Yoga

INTRODUCTION

The gestation period starts from conception until the birth of the fetus, the normal length of gestation is 280 days (40 weeks or 9 months counting from the first day of the last menstrual period) (Windayanti, 2021). During pregnancy there are physical and psychological changes. Changes in pregnancy are a mother's adaptation process in undergoing her pregnancy. This condition will always cause physical discomfort to the pregnant woman, coupled with an image of the childbirth process, how the baby is and the condition of the baby after birth (Sulistiyaningsih, 2020). These changes will continue to occur during the 9 months of pregnancy. One of the changes in maternal psychology is anxiety. The feeling of anxiety in pregnant women will increase as the time of delivery approaches (Mulyati, 2018).

According to the World Health Organization (WHO) there are about 10% of pregnant women and 13% of women who have just given birth worldwide who experience mental disorders, trauma, depression (Bingan, 2019). Meanwhile, according to research in various countries such as Malaysia, research data shows 23.4% of pregnant women experience anxiety, in China 20.6% of pregnant women experience anxiety, and in Central America-Nicaragua 41% of pregnant women have symptoms of anxiety and 57% pregnant women are depressed. In addition, according to research in Pakistan 70% of pregnant women experience anxiety and depression, and in Bangladesh also 18% of pregnant women experience depression and 29% of pregnant women experience depression or anxiety and in Indonesia alone 71.90% experience anxiety (Bingan, 2019). Meanwhile in Cirebon city, Indonesia was found out that pregnant women experienced moderate anxiety (Sriyatin, 2019).

Anxiety is a subjective experience of nervous mental tension as a general reaction and the inability to deal with problems or to feel safe (Bangun, 2019). This unpleasant feeling generally produces physiological symptoms such as shaking, sweating, and an increased heart rate. Meanwhile, psychological symptoms such as panic, tension, confusion, and unable to concentrate (Bangun, 2019). The stress caused by anxiety about childbirth not only affects the mother, it also affects the fetus. Mothers who experience stress, signals that travel through the Hypothalamic-Pituitary-Adrenal (HPA) which can cause the release of stress hormones resulting in systemic vasoconstriction, including constriction of the uteroplacental vaso which causes disruption of blood flow in the uterus, thereby delivering oxygen (O₂) to the myometrium disturbed. This incident causes the labor process to take longer (prolonged labor) so that the fetus can experience fetal distress (Bangun, 2019). In addition, according to research conducted (Bingan, 2019) shows that the impact caused by anxiety during pregnancy includes postpartum depression, preterm delivery, cesarean section, separation anxiety disorder and behavioral disorders in children (baby blues).

The role of nurses as executors in maternity nursing is in the form of nursing care in antenatal care, nursing care in childbirth, postpartum nursing care and nursing care for neonates (newborns). Nurses must be able to recognize symptoms of anxiety and reduce anxiety for pregnant women by providing explanations about pregnancy, childbirth, anxiety, and the effects of anxiety on pregnant women and the fetus (Astria, 2010). In addition, according to research

conducted by Bingan (2019) shows that the impact caused by anxiety during pregnancy includes postpartum depression, preterm delivery, cesarean section, separation anxiety disorder and behavioral disorders in children (baby blues).

In general, the role of nurses as implementers in maternity nursing is in the form of nursing care in antenatal care, nursing care in childbirth, nursing care in postpartum and nursing care for neonates (newborns). In the case of pregnant women who experience anxiety, the role of nurses here must be able to recognize the symptoms of anxiety and be able to reduce the anxiety of pregnant women by providing explanations about pregnancy, childbirth, anxiety, and the effects of anxiety on pregnant women and fetuses (Astria, 2010). Management of anxiety in pregnant women must be done immediately to help foster feelings of calm, safety, and comfort so as to reduce the anxiety felt by pregnant women and facilitate the birth process (Hamilton, 1995).

One of the non-pharmacological techniques that nurses can do to reduce anxiety in pregnant women is prenatal yoga. Prenatal yoga is one way to deal with anxiety in the third trimester of pregnant women (Mulyati, 2018). The urgency of anxiety must be handled before childbirth, namely so that the mother does not experience excessive anxiety which becomes a stressor to difficulties in childbirth because an important part of the labor process is the mother's psychological presence in responding to the labor process (Mulyati, 2018). Prenatal yoga has a positive effect on pregnant women, namely reducing stress, anxiety, pain during pregnancy, discomfort and reducing labor pain (Sinambela, 2020). In addition, one of the other benefits of practicing yoga for pregnancy is that it reduces anxiety and mentally prepares the mother for childbirth (Sinambela, 2020). Yoga gymnastics emphasizes basic exercises on postures and deep breathing techniques (Sinambela, 2020).

Based on the research conducted (Sinambela, 2020) it is stated that yoga can help provide peace of mind and mind because it can be used as a coping stress. This is because yoga can help someone make an effort to solve the problem they are facing (planful problem solving) in this condition is to minimize complaints due to anxious reactions (Sinambela, 2020). For example, such as relieving pain in some parts of the body, regulating the rhythm of the breath to achieve a relaxed state, regulating heart rhythm, and improving sleep quality (Sinambela, 2020). In

addition, breathing techniques can give pregnant women the ability to manage their emotions and thoughts to focus more on their condition and on the situation they are currently facing (Sinambela, 2020). This enters into self-management (self-control), a person makes efforts to self-regulate both emotionally and in action (Sinambela, 2020).

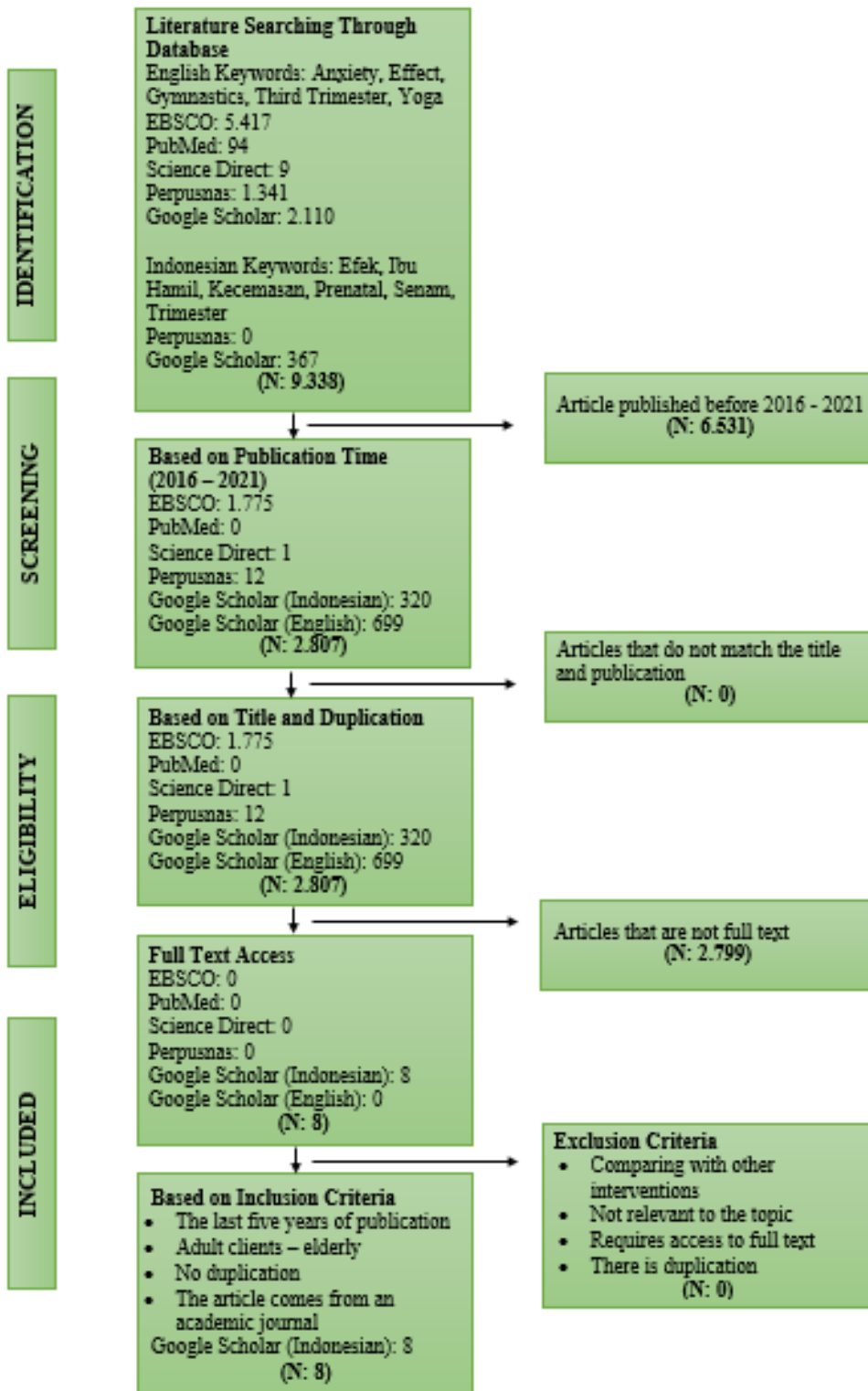
From the above background, the authors took the initiative to discuss the effect of prenatal yoga on reducing anxiety in third trimester pregnant women, so that it can be used as a recommendation as an intervention in reducing anxiety in third trimester pregnant women. The purpose of this paper is to determine the effect of prenatal yoga on reducing anxiety in third trimester pregnant women. Based on several research findings, saying that yoga is effective for dealing with anxiety in pregnant women who are about to give birth, but each study has a different variant of movement and time to perform prenatal yoga interventions. The purpose of this paper is to determine the effect of prenatal yoga on reducing anxiety in third trimester pregnant women and (+) knowing the movement and duration in the implementation of prenatal yoga.

METHOD

The type of literature review used is narrative review. The approach taken in the search for this article used PICO (Population of pregnant women in the third trimester, prenatal yoga intervention, comparison -, and outcome of reducing anxiety in third trimester pregnant women) using the Google Scholar database, PubMed, Science direct, EBSCO, and the National Library of Indonesia. The keywords used in the search were Indonesian words (Wanita Hamil, Kecemasan, Prenatal, Senam, Trimester Ketiga, Yoga) and English (Anxiety, Gymnastics, Pregnant Mother, Prenatal, Third Trimester, Yoga). The search for articles began on 24 February 2021. Findings from various sources were limited by inclusion and exclusion criteria. The inclusion criteria of this study were the publication year span of the last 5 years (2016-2021), third trimester pregnancy, primigravida/multigravida, full-text, anxiety reduction outcome, and intervention with prenatal yoga. While the exclusion criteria were comparing with other interventions, pregnant women with abnormalities, irrelevant to the topic, and thesis or review articles.

At the beginning of the search from the database, without using inclusion criteria, 9,338 articles came from EBSCO totaling 5,417 articles, PubMed totaling 94 articles, Sciencedirect totaling 9 articles, National Library numbering 1,341 articles, and Google Scholar totaling 2,110 articles. After using the inclusion criteria, 9 articles were obtained. But when filtering articles using exclusion criteria, there was 1 article that did not meet the requirements so that the final result was 8 articles. Based on the results of the literature review of 8 articles that match the criteria, the researcher will conduct a literature review entitled "The Effect of Prenatal Yoga on Decreasing Anxiety in Trimester III Pregnant Women".

Chart 1. PRISMA Flow Diagram



RESULTS

Based on the results of the 8 reviewed journals, all of them are in Indonesian. Of the 8 journals, there are 4 journals which explain that the duration of effective prenatal yoga exercise is 2 times a week, 1 journal mentions 3 times a week, and 3 journals do not mention the effective duration. As for the types of movements, 4 journals mention that the types of movements that are effective are body muscle stretching techniques, breathing meditation, and promoting health and spiritual growth, 1 journal mentions 5 effective core techniques such as body mastery techniques (asanas), breath mastery techniques (pranayama), energy locking techniques (bandha), energy control techniques (mudras), and body cleansing techniques (kriya), and 3 other journals do not mention the type of movement that is effective.

Table 1. Main Findings from the Research Article

No.	Author	Research purposes and Country	Population, Sample, and Sampling Technique	Types of research	Duration and Types of Prenatal Yoga Exercises / Movements	Instrument	Result	Strengths and Weaknesses
1	(Ashari, 2019)	Knowing the effect of prenatal yoga on reducing the anxiety of third trimester pregnant women Indonesia	The intervention group was 60 people Sampling Technique: purposive sampling	<i>Quasi experiment</i>	Duration: Not mentioned Prenatal yoga movements: The 5 core techniques of body mastery technique (asana), breath mastery technique (pranayama), energy locking technique (bandha), energy control technique (mudra), and body cleansing technique (kriya).	Not mentioned	This research concludes that yoga exercise carried out on the prenatal stage of pregnant women affects the decreased levels of anxiety in pregnant women who Entered the third trimester	Strength: The number of respondents fulfilled the minimum requirements for a quasi experiment study Weakness: - It did not specify which anxiety instruments were used. - It was not clear how long it took to intervene

2	(Bingan, 2019)	Knowing The effect of prenatal gentle yoga in reducing anxiety levels in the third trimester of pregnant women	Sample 31 people Sampling Technique: Purposive Sampling	<i>Quasi Experiment</i> with pre and post-test one group design.	Duration: 2x / week during January-March 2018 Type of exercise / movement: Not explained	Not mentioned	The influence of prenatal gentle yoga showed that third trimester pregnant women who experienced anxiety during pregnancy experienced a decrease in anxiety during pregnancy after doing prenatal gentle yoga which was carried out 3 times in prenatal gentle yoga class meetings	Power: The number of respondents fulfilled the minimum requirements for a quasi experiment study Weakness: - It did not explain which anxiety instruments were used - It does not explain the yoga movements that are done and the duration of each time doing yoga.
3	(Sulistiyaningsih, 2020)	Knowing the effect of prenatal yoga on the level of anxiety reduction	Population and sample: Primigravida TM III pregnant women at Miriam Kudus	<i>Pre-experimental design</i> with one group pretest posttest design	Duration: 3 times yoga Type of exercise / movement: Deep breathing exercises,	<i>Hamilton Rating Scale for Anxiety</i> (HRS-A) with modifications	Based on the research results can concluded that there is a significant influence before and after do prenatal gentle yoga with value of sig (-2 tailed) =	Power: This article uses a sample of 30 people, meeting minimum sample standards for good research.

		Hospital (30 people)		meditation, and stretching of the body muscles		0.000 so that $0.000 < 0.05$ which indicates that there is an effect of prenatal gentle yoga against anxiety levels of pregnant women in 3rd trimester primigravida facing labor	Weakness: There is no mention of the duration (minutes) of doing yoga
		Sampling Technique: <i>Total sampling</i>					
4	(Erawati, 2019)	Knowing the effect of yoga exercises on anxiety levels Indonesia	Population: Pregnant women who visit prenatal classes love mothers	<i>Pre-experimental</i> with a one-group pretest-posttest design without control group.	Duration: 2 times a week, for 1 month. Type of exercise / movement: a Muscle control, breathing techniques, relaxation, and peace of mind	<i>Pregnancy Anxiety Scale (PAS).</i> The results of the analysis of the level of anxiety obtained the Asymp value. Sig. (2-tailed) of 0.000 so it can be concluded that yoga exercise affects the level of anxiety in dealing with labor in primigravida mothers	Power: This article uses a sample of 33 people, meeting the minimum standards for good research. Weakness: There is no mention of the duration (minutes) of doing yoga
			Sample: 33 people				
			Sampling Technique: <i>Non probability sampling purposive sampling type</i>				
5	(Aswitami, 2017)	Determine the effect of prenatal yoga on anxiety	Population: Bumi Sehat Foundation Clients	<i>Pre experiment</i> with the One-Group	Duration: 3 weeks with a duration of 2 times in	<i>Hamilton Anxiety Rating Scale (HARS)</i> There is an influence of antenatal yoga on the level of anxiety in pregnant women in	Power: This study used a sample of 35 people

	levels	Sample: 35 pregnant women in the third trimester	Pretest- Posttest design.	a week		facing the labor process and there is a difference in the level of anxiety before and after being given antenatal yoga to pregnant women in TW III.	Weakness: There was no mention of the sampling technique	
6	(Mulyati, 2018)	Knowing the effect of prenatal yoga on anxiety in primigravida trimester	Population: 122 primigravida pregnant women in Jasmine MQ Medika Bandung City trimester III	<i>Quasi experiment</i>	Duration: Not mentioned	Not mentioned	There is an effect of prenatal yoga on anxiety in facing labor in third trimester primigravida because pregnant women experience a decrease in anxiety after being given prenatal yoga intervention.	Power: The study used a sample of more than 30 people, namely 55 people. Weakness: Instrument not specified
		Sample: 55 people			Type of Exercise / Movement: Stretching the muscles of the body, breathing meditation, and promote health and growth spiritual			
		Sampling Technique: <i>purposive random sampling</i>						

<p>7 (Dewi, 2018)</p>	<p>Knowing the effect of prenatal yoga on the anxiety level of the third trimester primigravida pregnant women Indonesia</p>	<p>Sample: 32 pregnant women Sampling Technique: -</p>	<p><i>Pre-experiment</i></p>	<p>Duration: - Intervention: -</p>	<p><i>Hamilton Anxiety Rating Scale (HARS)</i></p>	<p>Research shows that pregnant women primigravida in the third trimester get lower prenatal yoga compared to pregnant women third trimester primigravida who do not get prenatal yoga.</p>	<p>Power: The number of respondents fulfilled the minimum requirements for the pre-experimental study Using the control group</p>
<p>8 (Sriwahyuni, 2018)</p>	<p>Knowing the differences in anxiety of pregnant women before doing yoga with pregnant women after doing yoga</p>	<p>Sample: 20 people Sampling Technique: <i>Total sampling</i></p>	<p><i>Quasi experiment</i></p>	<p>Duration: The first sample group was 3 weeks with a duration of 2 times a week. Comparison group after doing yoga exercises</p>	<p>Not mentioned</p>	<p>There is an influence of yoga exercise on pregnant women who will face childbirth so that there are differences in anxiety in pregnant women before and after doing yoga exercises.</p>	<p>Power: The number of respondents fulfilled the minimum requirements for a quasi experiment study Samples and instruments are described in</p>

Indonesia

Type of exercise: not mentioned

detail

Weakness:

The research design was a quasi experimental research

The type of exercise performed is not stated

It did not explain what instrument was used

DISCUSSION

Based on 8 articles that have been reviewed, the researcher will explain the results of the intervention, duration, type of exercise or movement, and the mechanism for reducing anxiety. The results of the intervention from all of these articles showed that the intervention of prenatal yoga exercises was effective in reducing anxiety in third trimester pregnant women with $p < 0.05$.

In the research of Ashari, Pongsibidang, GS, & Mikharunnisai, A. (2019) states that prenatal yoga training interventions are carried out by 5 core technique movements, namely body mastery technique (asana), breath mastery technique (pranayama), energy locking technique (bandha), energy control (mudra), as well as body cleansing techniques (kriya) without explaining the duration performed by the researcher. Then, Strength in the article is the number of respondents fulfilled the minimum requirements for a quasi experiment study and Weakness in the article are it did not specify which anxiety instruments were used and It was not clear how long it took to intervene.

In the research of Sulistyaningsih, SH, & Rofika, A. (2020) states that the duration of the implementation of prenatal yoga practice is carried out 3 times a month with the type of exercise/movement of deep breathing exercises, meditation, and stretching of body muscles. Then, Strength in the article is This article uses a sample of 30 people, meeting minimum sample standards for good research and weakness is there is no mention of the duration (minutes) of doing yoga.

In Bingan's study, EC S (2019) the duration of prenatal yoga exercise intervention was carried out 2x /week for 3 months. This is also supported by research by Erawati, NM, Adilatri, AASA, & Krisnawati, KMS (2019) which states that the duration is carried out 2 times a week and the type of exercise used is muscle control, breathing techniques, relaxation, and peace of mind. Whereas in Aswitami's research, NGAP (2017) and Sriwahyuni, E. & Sari, G. (2018) stated that what was done in the prenatal yoga training intervention was 3 weeks with a duration of 2 times a week and the type of exercise used was stretching the body muscles, breath meditation, and promote health and spiritual growth. The above is in line with the results of

research by Erawati, NM, Adilatri, AASA, & Krisnawati, KMS (2019) and research by Aswitami, NGAP (2017), that muscle control, breathing techniques, relaxation, and peace of mind if done routinely are as many as 2 times a week for one month, can reduce anxiety in pregnant women with $p = 0.000$ ($p < \alpha (0.05)$).

Based on the evidence from the studies that have been mentioned above, prenatal yoga practice states that there is a significant relationship between pregnant women who do yoga exercises and decreased anxiety in pregnancy. This statement is also in line with research conducted by (Dewi, 2018), where data is obtained that there are differences in anxiety of pregnant women before and after doing yoga exercises. This is evidenced by data from 20 respondents where the anxiety experienced by pregnant women when facing childbirth decreased after doing yoga exercises. Another research conducted by (Sriwahyuni, 2018) also explained that there was an effect of yoga exercises that were carried out 2 times a week in 3 consecutive weeks on the anxiety of pregnant women facing childbirth at the Alfitrah Maternity Home, Paya Perupuk Village, Tanjung Pura District, Langkat Regency in 2018 with the Wilcoxon test obtained p value = $0.002 < 0.005$.

Yoga is very much needed by pregnant women to flex their joints, especially pregnant women who are near the birth process. Yoga exercises consist of five core techniques, namely body mastery techniques (asanas), breath mastery techniques (pranayama), energy locking techniques (bandha), energy control techniques (mudras), and body cleansing techniques (kriya) which can be useful for a long period of time pregnancy. This technique is expected to relieve complaints of pregnant women during pregnancy, especially related to cramps and edema that are frequent at the end of pregnancy, improve blood flow and nutrition to the fetus, help the baby's position and movement, increase energy and appetite, create calm and focus, overcome feelings of nausea, relieves tension in the cervix, relieves tension, anxiety and depression during pregnancy, stretches the muscles (Hariyanto, 2015).

The facts above show that there is agreement with the theory that prenatal yoga can reduce anxiety for pregnant women. Prenatal yoga exercises with deep breathing techniques, muscle stretching, and meditation, with a duration of two times a week, have a significant effect on reducing anxiety in pregnant women. In addition, there are no side effects found in prenatal

yoga and it can be done anywhere, so it is considered an effective, safe, and easy intervention to reduce the anxiety level of pregnant women (Windayanti, 2021).

CONCLUSION

Prenatal yoga can be used as an alternative therapy to reduce anxiety in third trimester pregnant women because it can help provide peace of mind and can be used as a coping stress. In addition, prenatal yoga does not cause side effects, is effective, safe, and easy to do. This is supported by 8 articles that have been reviewed above and in the article it is stated that there is a significant influence between the groups before and after the intervention with anxiety levels in third trimester pregnant women with an average *p* value of 0.000 ($p < 0.05$). The effective duration to reduce anxiety in pregnant women according to the review results is 2 times a week and the types of exercises or movements that are most effectively used are deep breathing techniques, muscle stretching, and meditation. to be done by third trimester pregnant women who experience anxiety. Although there is one article that has a deficiency, namely using only one intervention group, to overcome this deficiency the researcher uses a purposive sampling technique to control the homogeneity of the sample so that it can be sure that the results are obtained purely because the intervention is not due to other variables.

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Ida Maryati: The Effect of Prenatal Yoga on Reducing Anxiety

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