

The Effect of Applying Yoga Exercises in Preventing Postpartum Blues in Postpartum Mothers: Implementation of Family Health Media

Abstract

Aims: The postpartum period presents significant physical, emotional, and social challenges for mothers. One common issue is postpartum blues, which can negatively impact maternal well-being. This study aims to analyze the effect of yoga exercises on preventing postpartum blues in postpartum mothers using family health media as an intervention.

Instrument & Methods: A quantitative analytical study with a quasi-experimental approach was conducted. The study involved postpartum mothers at the Alisah Clinic, utilizing a total population sampling technique. Data were collected through structured questionnaires and interviews, then analyzed statistically using SEM-PLS to evaluate the relationship between yoga practice frequency, duration, family support, and postpartum blues prevention.

Findings: The results show that yoga exercise significantly reduces postpartum blues symptoms. Higher frequency and longer duration of yoga sessions contribute to better mental and physical well-being. Additionally, the quality of family health media plays a crucial role in enhancing knowledge and promoting behavioral changes supportive of yoga practice. Family support was found to positively influence the consistency of yoga practice.

Conclusion: Yoga exercises, when practiced regularly with adequate duration and supported by quality health media and family involvement, are effective in preventing postpartum blues. These findings highlight the importance of accessible and structured yoga programs as part of postpartum mental health care.

Keywords: Postpartum Blues, Yoga, Family Health Media,

INTRODUCTION

The puerperium is a very important and challenging period for a mother after childbirth. During this time, the mother's body and mind undergo major changes that require physical and emotional adaptation. Drastic hormonal changes after childbirth can affect a mother's emotional balance, often leading to feelings of anxiety, stress, and unstable mood swings. In addition to hormonal changes, social and psychological factors also play an important role in the well-being of postpartum mothers (1). Support from partners, family, and the surrounding environment can greatly affect a mother's emotional state. Lack of social support is often associated with an increased risk of postpartum blues. In addition, cultural pressures and societal expectations of the perfect mother can also add to the mental burden for new mothers. This condition often makes mothers feel burdened and less confident in caring for their children. One psychological problem that is quite common during the postpartum period is postpartum blues, which is a mood disorder that generally appears within a few days to weeks after giving birth. This condition is characterized by symptoms such as feelings of excessive anxiety, irritability, frequent crying for no apparent reason, fatigue, and lack of confidence in carrying out the role of mother. Postpartum blues can be experienced by around 50-80% of postpartum mothers, and although it is temporary, this condition needs special attention. If left untreated, postpartum blues can develop into more serious postpartum depression and impact the mother's quality of life and emotional relationship with the baby (2).

The impact of postpartum blues is not only limited to the mother, but can also affect the development of the child (3). Mothers who experience postpartum blues tend to

have difficulty in giving full attention to their babies, which can impact the quality of the emotional bond between mother and child. In addition, this condition can also cause sleep and feeding pattern disturbances in infants due to a lack of positive stimulation from the mother. Therefore, prevention and management of postpartum blues is a very important aspect in ensuring the well-being of both mother and baby (4).

Given its considerable impact on maternal well-being and child development, effective prevention efforts are needed to address postpartum blues. One method that can be applied is a physical and psychological approach, such as yoga exercises. Yoga has been shown to help stabilize emotions, reduce stress, and improve the physical well-being of postpartum mothers (5). Thus, the application of yoga as one of the strategies to prevent postpartum blues is expected to help mothers cope better with the postpartum period, so that they can live their role as mothers with more confidence and comfort (6).

Based on data released by the World Health Organization (WHO), around 20% of cases of postpartum blues that are not treated properly develop into postpartum depression (7). This condition is more common in developing countries, including Indonesia, where lack of social support and lack of knowledge about mental health problems are often causal factors (8). Riskesdas data for 2023 shows that the prevalence of postpartum depression in Indonesia reached 11.5%, with main risk factors such as physical fatigue after giving birth, social pressure, and lack of support from family or partners (9). These factors may affect mothers' ability to adapt to their new role and negatively impact mental health. So, it is important for society, especially families and health workers, to find solutions that can prevent or mitigate the problem of postpartum blues, one of which is using yoga exercises as an intervention that can be done easily and cheaply (10).

Yoga is a physical method combining various body movements, breathing techniques, and meditation to create a balance between body and mind (11). This yoga practice is believed to reduce stress, improve sleep quality, increase body flexibility, and strengthen the relationship between mother and baby. According to Brown and Gerbarg, yoga positively lowers cortisol levels, a hormone associated with stress and anxiety (12). Yoga can also help overcome physical problems that postpartum mothers often face, such as back pain, fatigue, or muscle tension (13). In mental health, yoga can reduce anxiety and improve maternal emotional well-being (14). Munns, in his research, also found that mothers who regularly practised yoga during the postpartum period reported experiencing a significant reduction in symptoms of depression and anxiety. Therefore, yoga exercises are considered an effective alternative to help postpartum mothers prevent or reduce the symptoms of postpartum blues, as well as support physical and mental recovery after giving birth (15).

Research on the relationship between yoga and the mental health of postpartum mothers has been conducted by several previous researchers. Satyapriya, in her study in India, found that postpartum mothers who participated in a yoga program for six weeks experienced a significant reduction in postpartum blues symptoms compared to mothers who did not participate in the yoga program (16). Similar research by Chuntharapat in Thailand also showed that yoga can reduce anxiety and improve the quality of life of mothers after giving birth (17). The results of this

research show that yoga is not only beneficial for physical health but can also support the mother's mental well-being. However, although these studies show positive results, most of these studies were conducted in health centres or with the guidance of yoga instructors, thus paying less attention to affordability and convenience for postpartum mothers who live in areas with limited access to health facilities.

This research differs from previous studies, especially in its approach, which integrates family health media as a tool to facilitate the implementation of yoga at home. In most previous studies, yoga was implemented with the help of a direct instructor or in a health centre. Meanwhile, this research will test the application of yoga through family health media, such as video tutorials or digital applications that can be accessed by postpartum mothers independently at home. This approach is expected to increase the accessibility of yoga for postpartum mothers who may not have the time or resources to attend scheduled yoga classes. Through family health media, it is hoped that mothers can carry out yoga exercises regularly at home, increasing success in preventing or reducing symptoms of postpartum blues.

Even though many studies have discussed the benefits of yoga for postpartum mothers, there is still a gap in the implementation of yoga that can be widely accessed by postpartum mothers at home. Some previous studies were limited to interventions carried out in health centres or with the help of professional yoga instructors. This makes it difficult for postpartum mothers who do not have access to these facilities to obtain the same benefits. Additionally, more affordable and practical approaches, such as digital media, have not been widely explored. This gap is the main reason this research was conducted: to find out how effective the application of yoga exercises through family health media is in preventing postpartum blues in postpartum mothers. With this approach, it is hoped that mothers can do yoga easily at home, which will suit their circumstances and needs.

The main purpose of this study is to analyze the effect of applying yoga exercises in preventing postpartum blues in postpartum mothers by using family health media as a means of intervention. In addition, this study aims to contribute to the development of an effective and practical family-based intervention model. Through this research, a system has been developed that increases mothers' awareness of the importance of maintaining mental and physical health during the postpartum period and helps them overcome the symptoms of postpartum blues. Thus, the results of this study can be used as a basis for the development of health policies that are more inclusive and pay more attention to the welfare of postpartum mothers in Indonesia.

METHODS

Types of research

The research method used is quantitative. In quantitative research, the main goal is to examine a specific population or sample using structured research instruments. The data obtained was analyzed statistically to test the established hypothesis. The method used in this research is cross-sectional, which allows data to be collected at one specific time. This approach is relevant for evaluating the effect of implementing yoga exercises in preventing postpartum blues because it provides an overview of the relationship between yoga exercise variables as a health intervention and postpartum blues conditions in postpartum mothers at one time.

Research Location

The research was carried out at the Alisah Clinic. This health facility is a strategic location for this study because it has a relevant target population: postpartum mothers registered as patients. The selection of this location was based on considerations of accessibility, data availability, and support from the clinic to ensure the smooth running of the research. The research is planned to take place from June to July 2024, with activity stages designed systematically.

Population and Sample

This study used a total population sampling technique, in which all postpartum women registered at Alisah Clinic (80 people) were sampled. To avoid selection bias, participants were randomly divided into two groups: intervention group (yoga exercise + family health media) and control group (no yoga exercise intervention, only family health media). Randomization was done using Random Allocation Software to ensure equal distribution between the two groups.

Data collection technique

The data collection technique in this research was carried out through two main types of data sources, namely primary data and secondary data. Primary data was obtained directly from respondents through questionnaires and interviews. The questionnaire was designed with 18 statements for each research variable, using an ordinal scale to measure postpartum mothers' perceptions and experiences regarding the effect of yoga exercise in preventing postpartum blues. Apart from that, interviews were conducted directly to explore more in-depth information, such as emotional experiences, level of family support, and the benefits of yoga exercise according to the respondents' views. This approach aims to obtain accurate and comprehensive data as well as complement the results of the questionnaire.

Meanwhile, secondary data was obtained from patient medical records at the Alisah Clinic. Medical records provide objective data regarding the postpartum mother's health condition, birth history, and risk factors relevant to postpartum blues. This information helps ensure the validity of the research data and provides a broader context for the analysis. Using a combination of primary and secondary data, it is hoped that this research will provide a comprehensive picture of the effect of yoga exercise in preventing postpartum blues and support more valid and reliable conclusions.

RESULTS

Table 1. Qualities of the population

<i>Characteristic</i>	<i>Freq</i>	<i>%</i>
Age		
17-25 year	40	47,6%
26-35 year	27	31,9%
36-37 year	13	15,5%
Last education		

Elementary School	18	22,5%
Junior High School	20	25%
Senior High School	16	20%
Diploma	26	32,5%

(Source: Processed from primary data, 2024)

The demographic characteristics of the study population reveal that most respondents are young mothers, with the majority in the 17-25 age group, followed by those in the 26-35 age group. In terms of education, the respondents predominantly have a Diploma or S1 background, though a significant portion has lower levels of education, including junior high, elementary, and high school/vocational school. These demographic details are important as they provide context for understanding the population's potential needs and perspectives. Given the young age range, the study could address the specific mental health needs of younger postpartum mothers who may face unique challenges, such as balancing family responsibilities and education. Additionally, the variation in educational background may influence the ability of respondents to access or understand health information, which is relevant to the goal of using family health media in the intervention. The data supports the aim of the research, which is to develop and evaluate an intervention (yoga exercises) that could be accessible and beneficial across diverse demographic groups in preventing postpartum blues.

Research Variable Reliability

Table 2. Composite reliability and Cronbach alpha inspection results

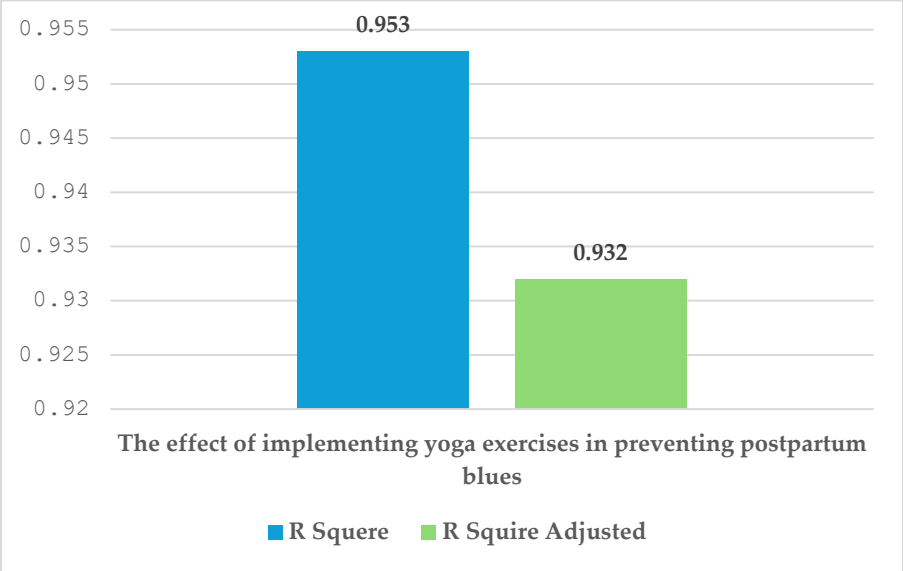
<i>Construction</i>	<i>Cronbach's Alpha</i>	<i>Rho_A</i>	<i>Composite Reliability</i>	<i>Average Variance Extracted (AVE)</i>
Frequency of Application of Yoga Exercises	0.128	-0.230	0.302	0.480
Quality of Family Health Media	0.325	0.425	0.650	0.344
Yoga Practice Duration	0.513	0.923	0.768	0.637
Level of Family Support	0.526	0.621	0.738	0.499
Regularity of Yoga Practice	0.458	0.317	0.607	0.281
The Effect of Applying Yoga Exercises in Preventing Postpartum Blues in Postpartum Mothers	1.000	1.000	1.000	1.000

(Source: Processed from primary data, 2024)

The reliability and construct validity tests indicate that several constructs measured in this research show varying levels of reliability and validity. The construct "Frequency of Application of Yoga Exercises" demonstrated low reliability with Cronbach's Alpha and Composite Reliability values below the acceptable threshold,

suggesting that this construct may not be reliable for measuring its intended variable. Similarly, "Family Health Media Quality" also showed moderate reliability, with an AVE slightly below the ideal value, indicating room for improvement. On the other hand, "Yoga Practice Duration" and "Level of Family Support" showed better reliability, with acceptable Composite Reliability and AVE values, supporting their validity as strong indicators in the model. Importantly, the construct "The Effect of Applying Yoga Exercises in Preventing Postpartum Blues" exhibited perfect reliability and construct validity, with all indicators at the maximum value, indicating that this construct is highly reliable and valid for measuring the effect of yoga exercises on preventing postpartum blues. These findings highlight that while some constructs require refinement, the research successfully supports the intended goal of examining how yoga exercises can effectively prevent postpartum blues, particularly with the strong performance of the "Effect of Yoga" construct. This reinforces the research's focus on the importance of yoga interventions in improving postpartum mental health, aligning with the goal of developing effective family-based health interventions.

Graph 1. Regression results on the effect of applying yoga exercises in preventing postpartum blues



(Source: Processed from primary data using SmartPLS tools, 2024)

The results of the analysis show that the application of yoga practice has a highly significant effect in preventing postpartum blues in postpartum mothers. The research model used proved to have excellent predictive ability, with the independent variables explaining most of the variation in the incidence of postpartum blues. The high Adjusted R Square value indicates that the model remains robust even when adjusted for the number of predictors used. These findings support the research objectives of identifying the effectiveness of yoga exercises in maintaining the mental health of postpartum women and developing a practical and effective family-based intervention. This confirms the importance of integrating yoga exercises in postpartum women's health programs to reduce the risk of postpartum blues.

Hypothesis testing

Hypothesis testing was carried out between independent and dependent variables using the bootstrapping method in SE Mpls to determine the validity and reliability of the research data. This test uses T-statistics and P-values , which will later be presented as a t table, to find valid research data for T-statistic values, namely > 1.96 and P-values, namely < 0.05 .

Variable		Original Sample (O)	Sample Mean (M)	STDEV	T-Statistics (O/STDEV)	P value	Hypothesis
Frequency of Application of Yoga Exercises	of	0.767	0.187	0.021	3.905	0.000	Accepted
Quality of Family Health Media		0.267	0.162	0.041	3.805	0.000	Accepted
Yoga Practice Duration		0.936	0.944	0.028	33.647	0.000	Accepted
Level of Family Support		0.181	0.169	0.046	3.903	0.000	Accepted
Regularity of Yoga Practice		0.967	0.181	0.041	3.505	0.000	Accepted

(Source: Processed from primary data using SmartPLS tools, 2024)

The research findings indicate that all independent variables significantly influence the application of yoga exercises in preventing postpartum blues among postpartum mothers. Each variable showed significant results with high T-Statistics and P-values of 0.000, supporting the acceptance of all hypotheses. Among the variables, "Yoga Practice Duration" demonstrated the strongest influence with the highest Original Sample value, followed by "Regularity of Yoga Practice", which also showed a substantial effect. Additionally, "Frequency of Application of Yoga Exercises", "Family Health Media Quality", and "Level of Family Support" all contributed significantly to the overall outcome, with each variable showing positive relationships to the prevention of postpartum blues. These findings directly align with the research's goal of evaluating the effectiveness of yoga exercises, especially through family-based health interventions, in reducing the risk of postpartum blues. The results underscore the importance of consistent yoga practice, adequate family support, and accessible health media in promoting mental well-being during the postpartum period.

DISCUSSION

Frequency of Application of Yoga Exercises

The frequency of implementing yoga exercises significantly influenced the variables analyzed, supporting the importance of consistency in this activity. This study's results are in line with previous research showing that physical activity carried out regularly, such as yoga, has a significant positive impact on physical and mental health.

Research by Smith revealed that regular yoga contributes to increased body flexibility, reduced stress, and improved sleep quality and concentration (18). This is in line with the results found in this study, where the frequency of applying yoga exercises positively affects physical condition and general well-being. In addition, research conducted by Rafika emphasized that the frequency of yoga activities is directly related to the benefits obtained (19). The more often a person engages in

yoga, the greater the positive impact felt in managing stress and improving mental health. These findings support the hypothesis that more frequent application of yoga may provide greater benefits in enhancing the quality of life. Thus, the results of this study strengthen previous findings, which show that consistency in doing yoga exercises significantly improves physical and mental well-being.

Quality of Health media

The frequency of application of "Family Health Media Quality" significantly influenced the analyzed variables, with results indicating a positive relationship between the quality of media used in the family health context and its impact on health knowledge and behavior. Previous research has confirmed the importance of the quality of health media in influencing health-related decision-making, especially within families.

Research by Deepa & Krishna Priya revealed that using quality health media can increase people's understanding of health issues and change healthy living behaviour (20). Informative and trustworthy media is an effective means of providing health education, especially for families who may not have direct access to health services. These findings support research results that show that the quality of family health media plays an important role in improving the understanding and practice of health in families.

In addition, research by Li shows that quality health media, especially accurate, easy-to-understand, and trustworthy information, significantly impacts family health knowledge (2). They found that high-quality media can help families make better health-related decisions, such as adhering to medical recommendations and following a healthy lifestyle. Therefore, this study provides in-depth evidence about the influence of media quality on health behaviour in families and supports the hypothesis that family health media quality can improve quality of life.

Yoga Practice Duration

The duration of yoga practice significantly influenced the analyzed results, with a very high T-Statistics value (33.647). This shows that the longer the duration of yoga practice, the greater the impact on physical and mental well-being. Previous research has proven that longer durations of yoga practice provide greater benefits, both in terms of improving physical health and managing stress.

Research by Cramer shows that a longer duration of yoga practice is directly related to improved body flexibility, muscle strength, and balance (21). The longer a person practices yoga, the greater the body's ability to adapt to the yoga movements, improving overall physical health. These findings support the results found in this study, which showed that the duration of yoga practice had a significant positive influence on well-being. Additionally, a survey by Gothe emphasized that the longer duration of yoga practice plays an important role in reducing stress, anxiety, and depression (22). Longer durations allow individuals to experience greater psychological benefits, such as increased peace of mind and better emotional management. These results align with this study's findings, which show that the duration of yoga practice plays a crucial role in improving mental health and general well-being. Overall, these findings further strengthen the evidence that longer durations of yoga practice have a significant impact on improving physical and psychological health, as well as supporting overall quality of life.

Level of family support

The level of family support significantly influences the variables analyzed, which shows that high family support can improve individual well-being. Previous research has emphasized the importance of family support in enhancing the quality of life, especially in the context of personal health and happiness.

Research by Xu revealed that emotional and practical support from family can help individuals face life challenges, reduce stress levels, and improve mental well-being. This support is a source of strength in dealing with difficult situations and improves overall physical and psychological health. This study's results align with existing findings, which show that the higher the level of family support, the greater the impact on individual well-being (23). Research by Aass shows that family support is not only related to emotional aspects but can also increase motivation to maintain health (24). Families who support individuals in physical activity or overcoming health problems have an important role in ensuring the individual's success in achieving health goals. Thus, this research supports the hypothesis that family support can contribute significantly to improving a person's quality of life in terms of physical health and mental well-being. Overall, these findings underline the importance of family support in enhancing well-being, both in terms of physical and psychological health, and provide evidence that the support provided by the family significantly impacts an individual's quality of life.

Regularity of yoga practice

The regularity of yoga practice significantly influences the variables analyzed, with the T-Statistics value showing that regularity in yoga practice greatly impacts physical and mental health. The results of this study are consistent with previous findings, which show that regular yoga practice provides greater benefits than sporadically.

Research by Sherman confirms that regular yoga can increase physical strength, flexibility and body balance. They found that individuals who practised yoga regularly were more likely to experience improvements in overall physical condition. This supports the results of this study, which show that regular yoga practice greatly influences physical well-being (25). Furthermore, studies by Gothe show that yoga done regularly also has a positive impact on mental health by reducing symptoms of anxiety, depression and stress. Regularity in yoga practice allows individuals to more effectively manage emotions and achieve a calmer state of mind (22). These findings align with this research, which shows that regular yoga practice has a positive effect on physical health and plays an important role in improving psychological well-being. Overall, these findings further strengthen the evidence that regular yoga practice significantly impacts physical and mental health, improving overall quality of life.

CONCLUSION

Based on the results of this research, it can be concluded that applying yoga exercises significantly prevents postpartum blues in postpartum mothers. More frequent and longer yoga practice positively impacts postpartum mothers' physical and mental well-being. The more often postpartum mothers do yoga, the greater the benefits they feel in managing stress and improving their mental health. Additionally, the quality of family health media used for education plays an important role in increasing health knowledge and behavior, which supports the

implementation of yoga exercises. Family support is another important factor because it motivates postpartum mothers to maintain regular yoga practice, enhancing the program's effectiveness. Regularity in yoga practice also contributes significantly to preventing postpartum blues, with families providing positive support that helps maintain consistent practice. Overall, the findings of this study show that regular yoga practice, adequate duration, quality health media, and family support are effective methods for preventing postpartum blues in postpartum mothers.

REFERENCES

1. KomangYuni Rahyani N, Gusti Made Ayu N, Wayan Armini N. Yoga and Facial Accupressure to Prevent Baby Blues and Depression in Postpartum Period. *International Journal of Science and Research (IJSR)*. 2023 Nov 5;12(11):587–93.
2. Li Q. The Effects of Yoga Exercise on Pelvic Floor Rehabilitation of Postpartum Women. M.A. B, editor. *Journal of Healthcare Engineering*. 2022 Jan 25;2022:1–16.
3. Anggraeni NPDA, Herawati L, Widyawati MN. The Effectiveness Of Postpartum Yoga On Uterine Involution Among Postpartum Women In Indonesia. *International Journal of Nursing and Health Services (IJNHS)*. 2019 Sep 9;2(3):124–34.
4. Abadibavil D, Sharifi N, Dashti S, Fathi Najafi T. Effects of Yoga in Pregnancy on Postpartum Depression: A Systematic Review. *Modern Care Journal*. 2021 Jul 26;18(2).
5. Buttner MM, Brock RL, O'Hara MW, Stuart S. Efficacy of yoga for depressed postpartum women: A randomized controlled trial. *Complementary Therapies in Clinical Practice*. 2015 May;21(2):94–100.
6. Abadibavil D, Sharifi N, Dashti S, Fathi Najafi T. Effects of Yoga in Pregnancy on Postpartum Depression: A Systematic Review. *Modern Care Journal*. 2021 Jul 26;18(2).
7. Mohammad Ahmad Mohammad A, Mohamed Ahmed Ayed M, El Saied Mahmoud Dawoud S, Atef Osman H, Hafez Ahmed E, Khalaf Gooda W. Effectiveness of Tai Chi Exercise on Stress and Postpartum Blues among Postnatal Mothers. *Egyptian Journal of Health Care*. 2024 Sep 1;15(3):50–9.
8. Astutik RY, Pramono N, Susanto H, Kartasurya MI. The effect of yoga training on postpartum prolactin and oxytocin levels in primipara women. *Journal of Medicine and Life*. 2024 Feb;17(2):210–6.
9. Heriyanti SW, Adnani QES, Rohmah S, Fatimah S. Effect of Prenatal Yoga On Back Pain and Sleep Quality in Pregnant Women: A Scoping Review. *Jurnal Bidan Cerdas*. 2024 Jun 30;6(2):66–81.
10. Novianti RP, Nyoman Supariasa ID, Ika Setyarini DIS, Mustafa A. The Impact of Prenatal Yoga on Anxiety Levels in Third-Trimester Primigravida Mothers: A Pre-Experimental Study. *International Journal of Advanced Health Science and Technology*. 2024 Aug 12;4(4).
11. Maharani HW, Nurhidayati S, Argaheni NB, Maulida LF, Sukamto IS. The correlation between the intensity of prenatal yoga participation on anxiety levels for