

**PRENATAL YOGA AGAINST PREGNANCY ANXIETY: EFFORTS TO REDUCE  
PREGNANT WOMEN'S ANXIETY BEFORE LABOR DURING THE COVID-19  
PANDEMIC  
LITERATUR REVIEW**

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**ABSTRACT**

**Introduction:** Changes that occur during pregnancy are not only physical, but psychological. The COVID-19 pandemic has an impact on the psychological health of the community, especially pregnant women. The results showed that during the COVID-19 pandemic, 75% of pregnant women in Baturraden District experienced anxiety from a mild-moderate to severe scale (Yuliani & Aini, 2020). Increased anxiety of pregnant women during the COVID-19 pandemic is one of the problems that needs special attention. Prenatal yoga is one way to reduce anxiety before childbirth. **Methodology:** This study is a Literature Review from several journals (Google Scholar and PubMed) with a time span of 2019 to 2021. **Research findings:** Increased anxiety of pregnant women during the Covid-19 pandemic is caused by social restrictions including health services. Many restrictions on almost all routine services including maternal and neonatal health services such as pregnant women being reluctant to go to the puskesmas or other health care facilities for fear of contracting the COVID-19 virus (Veftisia et al., 2020). There is only one psychological problem for pregnant women in this study, namely anxiety. So do not analyze other psychological problems. **Conclusions:** Some of the anxiety factors for pregnant women facing childbirth in the COVID-19 pandemic era are work status, knowledge, maternal age, economic status, fear of being infected with the COVID-19 virus, and concerns about pregnancy itself and childbirth. To reduce maternal anxiety in the midst of the current pandemic situation, interventions that can be carried out even within the limitations of the COVID-19 pandemic situation are needed, one of which is prenatal yoga.

**Keywords:** anxiety, prenatal yoga, labor

**1. INTRODUCTION**

The health condition of pregnant women affects the level of health of the fetus and the baby who has been born, so it is recommended that pregnant women can maintain a healthy lifestyle. Covid-19 is one of the diseases that can cause unrest for the community, including pregnant women. Data on Covid-19 cases as of October 9,

2021 in Indonesia was 4,227,038 people with the number of deaths, namely, 142,612 people (3.37% of confirmed patients). This case affects all people, one of which is pregnant women. This creates problems for the physical and psychological health of the community, especially pregnant women. In this Covid-19 pandemic situation, all services, including maternal and neonatal



health services, have been restricted. This causes psychological problems for pregnant women, namely anxiety because they are afraid to go to health services. Pregnant women who experience anxiety even to the point of stress can be caused by several problems including the economy, family, work and concerns about pregnancy and childbirth (KEMENKES RI, 2020).

Sulistiyawati (in Kurniarum, 2016) says that anxiety is different from fear. Anxiety is an emotional response without a specific object that is subjectively experienced and communicated directly interpersonally. Physiologically, the body's response to anxiety is to activate the autonomic nervous system (sympathetic and parasympathetic). The sympathetic nervous system will activate body processes, while the parasympathetic nervous system will cause the body's response. When the brain cortex receives a stimulus, the stimulus will be sent through the sympathetic nerves to the adrenal gland which will release adrenal or epinephrine so that the effects include deeper breathing, increased pulse, and increased blood pressure.

Prenatal yoga is a body movement accompanied by relaxation of breathing that can flex muscles and reduce anxiety for pregnant women in an effort to prepare for the birth process. Prenatal yoga is a combination of pregnancy exercise movements with antenatal yoga movements consisting of breathing movements (pranayama), positions (mudras), meditation and relaxation that can help smooth pregnancy and childbirth (Rusmita, 2015).

Yoga is a technique for relaxing the body and breathing. 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 the opposite function of 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 (Agustina, 2020).

A study showed that before being given prenatal gentle yoga there were 12 pregnant women with mild anxiety and after being given prenatal gentle yoga there were 25 pregnant women with mild anxiety. Based on the results of this study, it was shown that there was a decrease in anxiety for pregnant women after being given prenatal gentle yoga, which was 62.5% (Aziz et al., 2012).

Based on the description above, researchers are interested in researching "Prenatal Yoga Against Pregnant Women's Anxiety as an Effort to Reduce Pregnant Women's Anxiety Ahead of Delivery during the COVID-19 Pandemic" Literature Review.

## 2. METHODS

The data collection method in this literature review is literature study. The type of data used in this study is secondary data, namely data obtained from Papers from Scientific Journals, Papers from Thesis, and research journals conducted in 2019-2021 through Google Scholar, and PubMed. The search for journals uses keywords, namely "prenatal yoga on the anxiety of pregnant women during the COVID-19 pandemic" or "prenatal yoga on the anxiety of pregnant

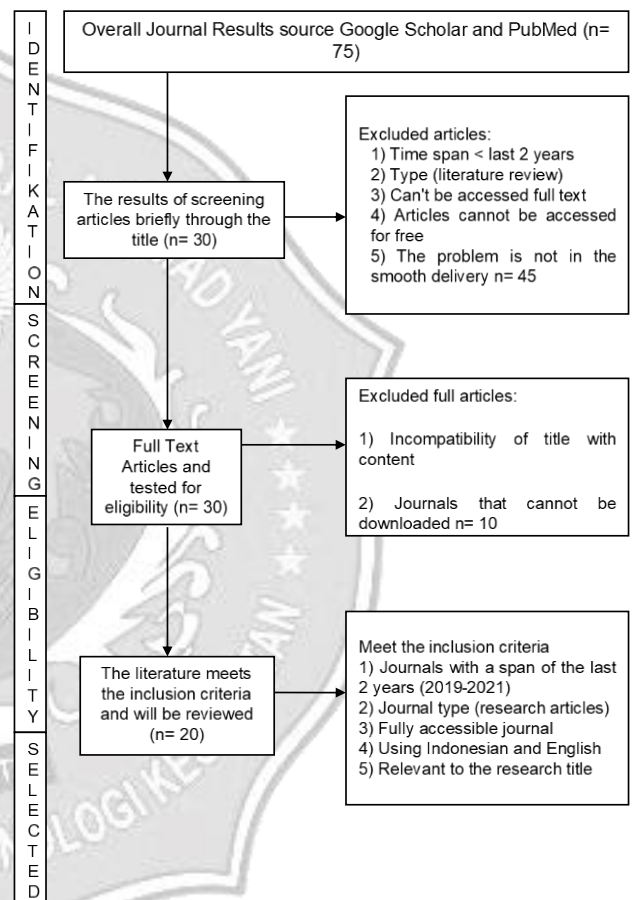
women before delivery during the COVID-19 pandemic". A literature search through the author's database found a total of 4 articles on Google Scholar, and 1 article on PubMed. The article has met the criteria, namely being published in a scientific journal, relevant to the research title, available in full text, open access, in Indonesian and English, and within the last 2 years when the COVID-19 pandemic began.

Publication Year	group pretest-posttest design. Journals and articles published after 2019.	systematic review Journals and articles published before 2019.
Language	Indonesian and English.	Apart from Indonesian and English.

**Table 1. Inclusion and Exclusion Criteria with PICOST format**

Criteria	Inclusion	Exclusion
Population /problem	National and international journals related to the topic of research problems, namely anxiety with the population of pregnant women facing childbirth during the COVID-19 pandemic.	National and international journals that are not related to the topic of research problems, namely anxiety with the population of pregnant women facing childbirth during the COVID-19 pandemic.
Intervention	Giving prenatal yoga.	There is no prenatal yoga intervention
Comparison	There is no comparison data.	There is no comparison data.
Outcome	There is an effect of prenatal yoga on reducing anxiety in pregnant women ahead of childbirth during the COVID-19 pandemic.	There is no effect of prenatal yoga on reducing anxiety for pregnant women before delivery during the COVID-19 pandemic.
Study design	Descriptive research, cross-sectional study, and Type one-	Literature review, case report,

**Table 2. PRISMA chart.**



### 3. RESULTS AND DISCUSSION

This article identifies databases based on several criteria, including being published in scientific journals, relevant to the research title, available in full text, open access, in Indonesian and English, and within the last 2 years when the COVID-19 pandemic began, 75 journals were obtained. Then obtained based on the title obtained 30 relevant

studies. Of the 30 relevant studies then analyzed based on the criteria and produced

20 articles, 12 international articles and 8 national articles for analysis.

**Table 3. List of search results articles**

No.	Writers	Years	Titles	Results
1.	Dily Ekasari	2021	The effectiveness of prenatal yoga through online methods on the level of anxiety in dealing with childbirth during the COVID-19 pandemic in the independent practice of Kediri city midwives	Based on the results of the study, it can be seen that after being given prenatal gentle yoga through online the level of anxiety decreased. Based on 40 respondents after being given prenatal gentle yoga online, most of them with mild anxiety levels were 25 pregnant women or (62.5%). According to researchers, one way to control anxiety levels can be done with prenatal gentle yoga.
2.	Nevy Norma Renityas	2020	The effectiveness of acuyoga in reducing anxiety in the face of the COVID-19 pandemic	According to the results of research conducted in 4 meetings for 2 weeks, it showed that there was a significant difference in decreasing respondents' anxiety before and after treatment. The acupressure is done in the middle of the forehead, under the wrists, ribs, the inside of the feet and the soles of the feet.
3.	Sartika Apriani, et al.	2021	Yoga prenatal health promotion for anxiety and labor preparation	From community service activities in the field of theory/ material delivery the results are quite good and can be accepted by participants who have attended education to overcome anxiety and prepare for childbirth. Pregnant women can do prenatal yoga independently. Health promotion about prenatal yoga can be done to pregnant women to reduce anxiety during this pandemic.
4.	Vistra Veftisia, et al.	2020	<i>Prenatal yoga in reducing anxiety and stress levels during the COVID-19 pandemic</i>	Prenatal Yoga Activities for Pregnant Women In Trimester II and III in Reducing Anxiety and Stress Levels During the Covid-19 Pandemic which were carried out online/online through WhatsApp group media went smoothly. This can be seen from the activity and role of the participants, namely pregnant women in the second and third trimesters in asking questions to the TEAM implementing community service activities until the end of the activity.
5.	Amanda Styles, dkk.	2019	<i>Prenatal yoga for young women a mixed methods study of acceptability and benefits</i>	This study shows yoga can be accepted by young pregnant women. For those who participated in yoga sessions it was found to reduce self-reported stress and improve perceived skills to assist with labor and delivery of their baby. The provision of accessible yoga programs for young pregnant women is recommended.
6.	Firmansyah	2021	<i>An overview of the anxiety that occurs in pregnant women in preparation for childbirth during the COVID-19 pandemic</i>	Based on the results of the study, almost half of pregnant women in the third trimester in Bhuluh Village, Socah District, Bangkalan Regency experienced severe anxiety as many as 14 pregnant women (40.0%) with characteristics aged 26-30 years, basic level education, first pregnancy status.
7.	Muzayyana, et al.	2021	<i>Factor analysis of the anxiety level of pregnant women in the third trimester in dealing with childbirth during the COVID-19 pandemic in the city of Kotamobagu.</i>	According to the results of the research conducted, it was found that maternal education has a very strong relationship with the anxiety of pregnant women in the third trimester during the COVID-19 pandemic, this can be seen in the significant value (P-V=0.028 < =0.5). Then other results show that the level of stress in pregnant women has a very strong relationship with the anxiety of pregnant women in the third trimester during the COVID-19 pandemic, this can be seen in the significant value (P-V=0.013 < =0.05).

8.	Ashari, et al.	2019	<i>The effect of prenatal yoga on reducing anxiety in third trimester pregnant women</i>	This study shows that prenatal yoga exercise plays an important role in reducing the anxiety level of pregnant women entering the third trimester of pregnancy. Based on the results of the analysis with the Mann Whitney U Test showed significant results ( $p = 0.000$ ) between the intervention group and the control group at the end of the study. This shows that yoga exercise in the prenatal phase has an effect on decreasing the anxiety of third trimester pregnant women at the Pattingalloang Health Center and the Tamalate Health Center.
9.	Maharani, Sri et al.	2019	<i>The effect of prenatal gentle yoga on the level of anxiety of pregnant women facing childbirth.</i>	Based on the results of research conducted at the Ayu Health Center in Jambi City in 2019, it was found that on average pregnant women before doing prenatal gentle yoga had severe anxiety, on average pregnant women after doing prenatal gentle yoga had mild anxiety and there was an effect of prenatal gentle yoga on the anxiety of pregnant women. in the face of labor with $p$ -value $<0.001$ .
10.	Kahyaoglu Sut et al.	2020	<i>Anxiety, depression, and related factors in pregnant women during the COVID-19 pandemic in Turkey: A web-based cross-sectional study.</i>	This study showed that the prevalence of anxiety and depression was 64.5% and 56.3%, respectively. Factors related to anxiety are work status, physical activity status, discomfort visiting the hospital, having information about COVID-19 with a value ( $p < 0.05$ ).
11.	Duranku, et al.	2020	<i>Effects of the COVID-19 pandemic on anxiety and depressive symptoms in pregnant women: a preliminary study.</i>	The results showed that among 35 respondents, 4% ( $n=92$ case groups) scored higher than 13 on the Edinburgh Postpartum Depression Scale (EPDS). A group comparison by year of education shows statistically significant effects of COVID-19 on psychology, social isolation, and mean scores in the Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI).
12.	Corbett et al.	2020	<i>Health anxiety and behavioral changes of pregnant women during the COVID-19 pandemic.</i>	This study showed that 71 women had filled out the questionnaire. Some women (83.1%; 5971) did not often worry about their health before. During the procrastination phase, more than ten women (50.7%; 36/71) were often or at all times concerned about their health. Pregnant women had increased anxiety about the health of their older relatives (83.3% or 55/66). Also worries about their children (66.7% or 28/42), and the unborn baby (63.4%; 45/71).
13.	Ayaz, et al.	2020	<i>Anxiety and depression symptoms in the same pregnant women before and during the COVID-19 pandemic</i>	Based on the research, it was found that as many as 63 pregnant women filled out the questionnaire. According to the BAI score the number of patients without anxiety (from 10 to 6) and with mild anxiety (from 31 to 24) decreased and with moderate anxiety (from 20 to 25) and severe anxiety (from 2 to 8) increased during the COVID-19 pandemic.
14.	Ceulemans et al.	2020	<i>Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: A call for action</i>	The results showed that in total, 5,866 women completed the survey (241 pregnant women and 3445 breastfeeding women). Overall nearly half of the women experienced symptoms of depression or anxiety during the period of self-isolation. The prevalence of self-reported major depressive symptoms (EDS 13) in pregnancy (25.3%) and postpartum (23.6%) was explicitly higher than that obtained in Belgium before the pandemic. Subsequent results revealed higher levels of generalized anxiety during staying at home, with more than 40% of women

				scoring the 5 EDS anxiety subscales. In addition, 14% met the criteria for high anxiety on GAD-7 ( $\geq 10$ ).
15.	Preis H et al.	2020	<i>Pandemic-related pregnancy stress and anxiety among women pregnant during the coronavirus disease 2019 pandemic</i>	The results showed that 166 women (21.1%) reported no minimal anxiety symptoms (GAD-7=0-4), 280 (35.6%) reported mild anxiety symptoms (GAD-7=5-9), 170 (21.6%) reported moderate anxiety symptoms (GAD-7=10-14), and 171 (21.7%) reported severe anxiety symptoms (GAD-7=15). In the final model (total $R^2 = 0.28$ ) history of abuse, high-risk pregnancy, preparedness stress, and perinatal infection stress all independently predicted the likelihood of moderate or severe anxiety.
16.	Kiselev, S et al.	2021	<i>Yoga exercises can reduce prenatal maternal stress</i>	Based on the study, the results showed that ANOVA had revealed ( $p < 0.05$ ) that women in yoga training experienced a greater pre- and post-intervention reduction in pregnancy-specific anxiety and pregnancy-related anxiety than participants in the control condition.
17.	Yuvarani et al.	2020	<i>A study to compare the effects of aerobic exercises and yoga on depression and maternal anxiety orienting among primiparous women</i>	This study stated that a comparison of the mean scores of group A and group B on the depression scale scores of the epidemiological study center showed a significant decrease in the post-test mean of group A (24.60) and group B (24.40) at $P < 0.001$ . Therefore both groups were equally effective in reducing maternal depression and anxiety among primiparous women.
18.	Dagklis et al.	2020	<i>Anxiety during pregnancy in the era of the COVID-19 pandemic</i>	The study showed that the number of weeks after quarantine (first week – OR: 6,924; 95% CI: 2,807-17,027, second week - OR: 2,654; 95% CI: 1,138-6,192, third week – OR: 1,000) and smoking (OR: 3,815; 95% CI: 1,215-11,985) in pregnancy was identified as an independent risk factor for anxiety. No difference was found in the incidence of anxiety between the three trimesters of pregnancy.
19.	Akmese et al.	2020	<i>A mix methods evaluation of the effectiveness of a group-based prenatal yoga programme on perceived stress in pregnant women</i>	This study showed that there was a statistically significant difference between the average stress perception scores on the first, second and third visual analogue scales of pregnant women in the prenatal yoga program and the control group. The women mostly used expressions of relaxation, decreased perception of stress and learning to cope with stress to describe the perception of stress after the prenatal yoga program. All women were told that their perception of stress decreased, and they learned how to deal with stress in pregnancy.
20.	Saadati	2020	<i>Health Anxiety of Pregnant Women and Its Related Factors During the Pandemic of Corona Virus</i>	This study showed that 9%, 13% and 21% of the women had severe anxiety or a score of 35 in the first, second and third trimesters of pregnancy. The 3rd trimester pregnant women had a significantly higher "total health anxiety: score, compared to the 1st trimester ( $p = 0.045$ ).

Coronavirus disease 2019 is a new variant of infectious disease that causes severe acute respiratory syndrome. The Covid-19 pandemic is one of them attacking pregnant women. The effect of SARS-CoV-2 virus infection on pregnancy contributes to an

increase in maternal morbidity and mortality, which is two times higher for pregnant women than for non-pregnant women. Pregnant women are at high risk due to changes in the immunology and physiology of the gestational system in the



body system of pregnant women so that it can increase the risk (Arisanti, 2021).

Several studies report the vulnerability of pregnant women to emotional, psychological and stress changes as risk factors that can exacerbate the negative impact of the COVID-19 pandemic, especially if there are comorbid illnesses that accompany it. The results of the study show that pregnant women who experience anxiety to stress are caused by various kinds of problems, including economic problems, family, work, and worries about pregnancy and childbirth. The results of the study show that pregnant women who experience anxiety and even stress are caused by various kinds of problems including the economy, family, work and concerns about pregnancy itself and childbirth (Kemenkes, 2020).

In this Covid-19 pandemic situation, all services, including maternal and neonatal health services, have been restricted. This causes psychological problems for pregnant women, namely anxiety because they are afraid to go to health services. With the changes in service patterns experienced, the community needs to understand this. However, everyone has their own perception due to various factors such as age, education, occupation, knowledge, attitude, and support from the surrounding environment. This change in pattern certainly has an impact on preparation for pregnancy, childbirth and child care (IBI, 2020).

According to WHO, there are about 10% of pregnant women and 13% of women who have just given birth worldwide experiencing mental disorders, trauma, depression. In China, shows that 20.6% of pregnant women experience anxiety. In

Central America-Nicaragua 41% of pregnant women have symptoms of anxiety and 57% of pregnant women experience depression. In Pakistan 70% of pregnant women experience anxiety and depression. In Bangladesh, 18% of pregnant women experience depression and 29% of pregnant women experience depression or anxiety.

Anxiety is an emotional state characterized by physiological arousal, unpleasant feelings of tension, and feelings of fear. Anxiety can occur from worrying about the delivery that will be done and preparing all the needs of the baby. In Malaysia, research data shows 23.4% of pregnant women experience anxiety, while in Indonesia 71.90% experience anxiety. Anxiety as a response to stress, can stimulate the body to be difficult to relax because the muscles become tense and the heart beats faster, it is difficult to relax occurs in pregnant women and then have sleep problems (Wahyuni, 2017).

Based on research conducted by (Dily Ekasari, 2021) with the title The effectiveness of prenatal yoga through online methods on anxiety levels in dealing with childbirth during the COVID-19 pandemic in the independent practice of Kediri city midwives. The study used a type one - group pretest-posttest design method. The study was conducted by giving a pretest before being given treatment. The results showed that of the 40 respondents before being given prenatal gantle yoga online, most of the respondents with moderate levels of anxiety were 22 pregnant women or (55.0%) and after being given prenatal gantle yoga online the level of anxiety decreases. Based on 40 respondents, after

being given prenatal gantle yoga online, most of them had mild anxiety levels as many as 25 pregnant women or (62.5%). These results show that prenatal gantle yoga through online methods can reduce anxiety levels in dealing with childbirth during the Covid-19 pandemic.

Research conducted by (Nevi Norma Renityas, 2020) with the title The effectiveness of acuyoga in reducing anxiety in the face of the COVID-19 pandemic. Research with the method of providing online acuyoga technique videos with pre test post test techniques after that using an online questionnaire given before giving acuyoga exercises and after acuyoga to the community using a Likert scale. The results of this study indicate that the evaluation before doing acuyoga showed 10 respondents mild anxiety, and 30 respondents moderate anxiety, after normal anxiety treatment 29 people and mild anxiety 11 people. This shows that there is a change after acuyoga is done, with an increase in the average level of anxiety before and after treatment by 10.8 points. There is a significant difference, namely the decrease in respondents' anxiety after acuyoga therapy.

Research conducted by (Sartika Apriani, et al. 2021) with the title Promotion of prenatal yoga health to overcome anxiety and preparation for childbirth. Research using the online/online method through the Whats App Group, which was followed by 15 pregnant women, showed that in the field of theory/delivery of material the results were quite good and acceptable to participants who had attended education to overcome anxiety and preparation for labor.

Pregnant women can do prenatal yoga independently. Health promotion about prenatal yoga can be done to pregnant women to reduce anxiety during this pandemic.

Based on research conducted by (Vista Feftisia, et al. 2020) with the title Prenatal yoga in reducing anxiety and stress levels during the COVID-19 pandemic. Research using the care share method of prenatal yoga videos and prenatal yoga materials as well as joint discussions through Focus Group Discussions (FGD) using WhatsApp groups showed the results that Prenatal Yoga Activities for Pregnant Women In Trimester II and III In Reducing Anxiety and Stress Levels During the Covid-19 Pandemic conducted online/online through WhatsApp group media went well. This can be seen from the activity and role of the participants, namely pregnant women in the second and third trimesters in giving questions to the TEAM implementing community service activities until the end of the activity. Partners need to provide counseling related to the anxiety felt by pregnant women during the COVID-19 pandemic, so that pregnant women can carry out activities while at home with useful activities such as pregnant yoga.

Research conducted by (Amanda Styles, et al. 2019) with the title Prenatal yoga for young women a mixed motives study of acceptability and benefits. Mixed methods research has shown that prenatal yoga is acceptable and beneficial for many of these young women. It is critical that clinicians and educators recognize the significant self-identified stressors and traumas among these women, who are often reluctant to engage in



mainstream psychosocial interventions. However, with high levels of psychological distress, many of these women are willing to engage in prenatal yoga. For those who do, it builds on opportunities to prepare for the workforce and parental bonds, and increase self-confidence and social connectedness, when training with other young women in similar situations.

Research conducted by (Firmansyah, 2021) with the title Description of anxiety that occurs in pregnant women in readiness for childbirth during the COVID-19 pandemic. Research with descriptive method shows that almost half of pregnant women entering the third trimester in Bhuluh Village, Socah District, Bangkalan Regency experience severe anxiety. Based on the results of the study, almost half of pregnant women in the third trimester in Bhuluh Village, Socah District, Bangkalan Regency experienced severe anxiety as many as 14 pregnant women (40.0%) with characteristics aged 26-30 years, basic level education, first pregnancy status. This shows that the condition of the COVID-19 pandemic has an effect on the anxiety of pregnant women.

Research conducted by (Muzayyana, et al. 2021) with the title Factor analysis of the anxiety level of third trimester pregnant women in facing childbirth during the COVID-19 pandemic in the city of Kotamobagu. Research with quantitative descriptive method with a cross sectional design using an observational approach with a questionnaire tool shows the results that maternal education has a very strong relationship with the anxiety of pregnant women in the third trimester during the

COVID-19 pandemic, it can be seen in the significant value ( $PV = 0.028 < \leq 0, 5$ ). Then other results show that the level of stress in pregnant women has a very strong relationship with the anxiety of pregnant women in the third trimester during the COVID-19 pandemic, this can be seen in the significant value ( $P-V=0.013 < \leq 0.05$ ). So it is known that the stress level of pregnant women in the 3rd trimester tends to be high and the level of maternal anxiety in the 3rd trimester during the COVID-19 pandemic tends to be high.

Research conducted by (Ashari, et al. 2019) with the title The effect of prenatal yoga on reducing anxiety in third trimester pregnant women. Research using a quasi-experimental method with the non-randomized pre-test post-test with control group design found that prenatal yoga exercise plays an important role in reducing the anxiety level of pregnant women entering the third trimester of pregnancy. Based on the results of the analysis with the Mann Whitney U Test showed significant results ( $p = 0.000$ ) between the intervention group and the control group at the end of the study. This shows that yoga exercise in the prenatal phase has an effect on decreasing anxiety levels in pregnant women entering the third trimester phase at Pattingalloang Health Center and Tamalate Health Center. Therefore, midwives as educators have an important role in providing knowledge and training in prenatal yoga exercises to prepare for childbirth.

Research conducted by (Maharani, et al. 2019) with the title The effect of prenatal gentle yoga on the level of anxiety of pregnant women facing childbirth. Research

using a quasi-experimental method showed that on average pregnant women before doing prenatal gentle yoga had severe anxiety, on average pregnant women after doing prenatal gentle yoga had mild anxiety and there was an effect of prenatal gentle yoga on the anxiety of pregnant women in facing labor with  $p$ -value  $<0.001$ .

Research conducted by (Kahyaoglu Sut et al., 2020) entitled Anxiety, depression, and related factors in pregnant women during the COVID-19 pandemic in Turkey: A web-based cross-sectional study. The study using a cross-sectional study method was conducted on 403 pregnant women using a web-based survey. Hospital anxiety and depression scale as a tool to measure anxiety and depression found that the prevalence of anxiety and depression in pregnant women increased significantly during the COVID-19 pandemic. Low levels of education, not doing regular physical activity, experiencing discomfort with hospital visits, and not having information about COVID-19 are important factors of anxiety and depression experienced by pregnant women. Doctors, nurses, and midwives are facilitators to provide information about COVID-19.

Research conducted by (Duranku, et al., 2020) with the title Effects of the COVID-19 pandemic on anxiety and depressive symptoms in pregnant women: a preliminary study. The study using an anonymous cross-sectional survey method to assess depression and anxiety in pregnant women showed that 35.4% of the respondents ( $n=92$  case groups) scored higher than 13 on the Edinburgh Postpartum Depression Scale (EPDS). A group comparison by year of education shows a statistically significant effect of

COVID-19 on psychology, social isolation, and mean scores in the Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI). This study describes the effect of the COVID-19 pandemic on depression and anxiety levels of pregnant women. The results in this study require psychosocial support for pregnant women who experience anxiety because if they do not get psychosocial support, it can affect the mother and fetus.

Research conducted by (Corbett et al., 2020) with the title Health anxiety and behavioral changes of pregnant women during the COVID-19 pandemic. Research using the questionnaire method, 71 women have filled out the questionnaire. Some women (83.1%; 59/71) did not often worry about their health before. During the procrastination phase, more than ten women (50.7%; 36/71) were often or at all times concerned about their health. Pregnant women had increased anxiety about the health of their older relatives (83.3% or 55/66). Also worries for their children (66.7% or 28/42), and the unborn baby (63.4%; 45/71). So it can be concluded that the anxiety experienced by pregnant women is not only for themselves, but for their families.

Research conducted by (Ayaz et al., 2020) with the title Anxiety and depression symptoms in the same pregnant women before and during the COVID-19 pandemic. Research using the questionnaire method with clarification of mental health factors of pregnant women before the COVID-19 pandemic found that as many as 63 pregnant women filled out the questionnaire. According to the BAI score the number of

patients without anxiety (from 10 to 6) and with mild anxiety (from 31 to 24) decreased and with moderate anxiety (from 20 to 25) and severe anxiety (from 2 to 8) increased during the COVID-19 pandemic. This study shows that the COVID-19 outbreak negatively affects the mental health of pregnant women leading to adverse childbirth. The level of anxiety and depressive symptoms of pregnant women during the COVID-19 pandemic increased significantly. Health professionals must develop a comprehensive treatment plan to prevent mental trauma.

Research conducted by (Ceulemans et al., 2020) with the title Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: A call for action. Research using the EDS survey method showed that in total, 5,866 women completed the survey (241 pregnant women and 3445 breastfeeding women). Overall nearly half of the women experienced symptoms of depression or anxiety during the period of self-isolation. The prevalence of self-reported major depressive symptoms (EDS 13) in pregnancy (25.3%) and postpartum (23.6%) was explicitly higher than that obtained in Belgium before the pandemic. Subsequent results revealed higher levels of generalized anxiety during staying at home, with more than 40% of women scoring the 5 EDS anxiety subscales. In addition, 14% met the criteria for high anxiety on GAD-7 ( $\geq 10$ ). The conclusion is that the results of the study indicate a possible increase in symptoms of depression and anxiety among pregnant women and women in the early postpartum period while staying at home during the COVID-19

pandemic. The role of obstetricians is very important to provide emotional well-being of pregnant women ahead of childbirth.

Research conducted by (Preis H et al., 2020) with the title Pandemic-related pregnancy stress and anxiety among pregnant women during the coronavirus disease 2019 pandemic. Research using an online questionnaire method through social media to 788 pregnant women found that pregnant women during the COVID-19 pandemic experienced considerable anxiety as indicated by the high prevalence of mild, moderate, and severe anxiety in the study sample. Stress related to preparation for birth during a pandemic and concerns about COVID-19 infection in themselves and their babies can increase a woman's risk of experiencing moderate or severe anxiety above demographic, obstetric, and other health factors.

Research conducted by (Kiselev, S et al., 2021) with the title Yoga exercises can reduce prenatal maternal stress. The study using the stress scale questionnaire method using ANOVA showed that ANOVA revealed ( $p < 0.05$ ) that women in yoga training experienced a greater reduction from before to post-intervention in pregnancy-specific anxiety and pregnancy-related anxiety than participants in the control condition. . This study shows that practicing yoga during pregnancy can effectively reduce pregnancy-related anxiety.

Research conducted by (Yuvarani et al., 2020) with the title A study to compare the effects of aerobic exercises and yoga on depression and maternal anxiety orienting among primiparous women. Research using

experimental methods stated that the comparison of the mean scores of group A and group B on the depression scale score of the epidemiological study center showed a significant decrease in the post-test mean of group A (24.60) and group B (24.40) at  $P < 0.001$ . Therefore both groups were equally effective in reducing maternal depression and anxiety among primiparous women. This study concluded that aerobics and yoga showed a significant effect in both groups to reduce symptoms of depression and anxiety in primiparous women.

Research conducted by (Dagklis et al., 2020) with the title Anxiety during pregnancy in the era of the COVID-19 pandemic. Research using a cross-sectional method showed that there was a significant increase in anxiety in pregnant women while staying at home during the COVID-19 pandemic, with the highest increase in the first week of quarantine, gradually decreasing in the second week and reaching almost normal levels in the third week.

Research conducted by (Akmese et al., 2020) with the title a mix methods evaluation of the effectiveness of a group-based prenatal yoga program on perceived stress in pregnant women. Research with mixed methods of concurrent triangulation found that there was a statistically significant difference between the average score of stress perception on the first, second and third visual analogue scales of pregnant women in the prenatal yoga program and the control group. The women mostly used expressions of relaxation, decreased perception of stress and learning to cope with stress to describe the perception of stress after the prenatal yoga program. All

women were told that their perception of stress decreased, and they learned how to deal with stress during pregnancy. This study shows yoga can be accepted by pregnant women who are stressed. There is a significant decrease in the perception of pregnant women.

Research conducted by (Saadati et al., 2020) with the title health anxiety of pregnant women and its related factors during the pandemic of corona virus. The cross-sectional study showed that 9%, 13% and 21% of the women had severe anxiety or a score of 35 in the first, second and third trimesters of pregnancy. The 3rd trimester pregnant women had a significantly higher "total health anxiety: score, compared to the 1st trimester ( $p=0.045$ ). The conclusion is that during the COVID-19 pandemic, pregnant women in the 2nd and 3rd trimesters are more worried about the consequences of the disease, but pregnancy total health anxiety is more significant in women in the 3rd trimester. Health care providers should pay more attention to the mental health of pregnant women in times of crisis such as the COVID-19 pandemic.

#### 4. CONCLUSIONS

Based on the literature review of the 20 articles above, it can be concluded that from some of the anxiety of pregnant women facing childbirth in the COVID-19 pandemic era, there are several factors, namely employment status, education, knowledge, maternal age, economic status, and environmental conditions that cause mothers to be afraid of being infected with the virus. COVID-19, as well as concerns about pregnancy itself and childbirth. To reduce

maternal anxiety in the midst of the current pandemic situation, interventions are needed that can be carried out even within the limitations of the COVID-19 pandemic situation. Prenatal yoga is an effort to reduce the anxiety of pregnant women ahead of childbirth during the COVID-19 pandemic. The implementation of prenatal yoga can be done online, either using face-to-face or sharing videos of prenatal yoga itself to pregnant women. To increase this intervention, it is necessary to promote health as well as the participation of health workers to reduce the anxiety of pregnant women during the COVID-19 pandemic.

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