

## Research Article

# Anxiety in Pregnant Women During the COVID-19 Pandemic

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**Abstract.** The World Health Organization declared COVID-19 as a pandemic because of its rapid and extensive spread. Pregnant women are one of the groups vulnerable to COVID-19, and COVID-19 can have an impact on their psychology, including anxiety. The purpose of this study was to identify the level of anxiety in pregnant women, and the related factors, effects and efforts made in dealing with anxiety in pregnant women during the pandemic. The study involved a literature review, and 10 articles were included. These articles were found by searching for keywords including pregnancy, anxiety, Coronavirus, and COVID-19. Four of the articles discussed the anxiety levels of pregnant women during the COVID-19 pandemic, two articles discussed factors related to this anxiety, two articles discussed the effects of this anxiety, and two articles discussed the efforts of pregnant women to handle their anxiety during the pandemic. According to the results, most of the pregnant women experienced psychological changes and an increase in anxiety during the COVID-19 pandemic. The factors that affected the level of anxiety included a lack of family support, social isolation, and geographical differences.

**Keywords:** pregnant woman, anxiety, COVID-19, literature review

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## 1. Introduction

In December 2019 the Covid-19 virus was discovered in Wuhan City, China. WHO has declared it a pandemic outbreak because it spreads so fast and occurs in many countries [1]. 220 countries reported the number of people who were positively infected with COVID-19. On December 7, 2020, WHO received reports of 66,422,058 confirmed cases of COVID-19, with a death toll of 1,532,418 [2]. Indonesia reported that on December 7, 2020, there was an increase in cases from previously reported data, on November 26, 2020, 581,550 confirmed cases of coronavirus were confirmed, 479,202 were declared cured and 17,867 cases died [3]. Positive cases of coronavirus based on data from South Sulawesi (South Sulawesi Responding to COVID-19, 2020) on December 7, 2020, there were 21,914 cases, 18,984 cases recovered, and 508 cases died, an increase from the previous data reported on December 1, 2020. For the Covid-19 case

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that occurred in Makassar, the number of confirmed positive cases was 15,300 cases, 9,296 recovered, and 316 died.

Seeing the current situation, the COVID-19 pandemic has made pregnant women a vulnerable group at risk for COVID-19 and has an impact on psychology, one of which is anxiety, in addition to feeling anxious about their pregnancy, there are other risk factors that arise, namely environmental insecurity related to disaster or disaster events. early [4]. Concerns felt by pregnant women about the risk of infection during pregnancy, transmission to the baby and family members [5]. The impact of COVID-19 that attacks the community and pregnant women in general is almost the same, symptoms such as cough, fever, nasal congestion, sore throat, and an average of 8 days the patient will show symptoms of dyspnea [6]

Pregnant women will find complications in the fetus as well as stunted fetal growth (IUGR) (9%), stillbirth (2%), and preterm delivery (43%) [7]. This will affect the fetus, related to neonatal growth and development. So that special attention is needed for pregnant women regarding prevention, diagnosis, and management [8]. Some of the suggested ways to reduce the psychological impact of anxiety on pregnant women during the COVID-19 pandemic are staying in therapeutic contact with the provision of health services using existing technological facilities, conducting cognitive behavioral therapy (CBT) by means of talk therapy, improving coping skills and changing patterns. think and do self-care by means of yoga, meditation, exercise, adequate sleep, nutrition and vitamins [9].

## 2. Methods

In this study, the literature review method uses several databases and gray search with high to low quality criteria, namely, Google Scholar, Clinicalkey For Nursing, Science Direct, and ProQuest. By using keywords: pregnant women, anxiety, COVID-19. Then journals or articles that match the inclusion and exclusion criteria are taken for further analysis. The results of a literature search conducted on four databases using predetermined keywords, then the researchers found 1,399 articles that matched these keywords. The search results that have been obtained are then checked for duplication, it is found that there are no similar articles so that the articles are still the same in number of 1,399 articles. Researchers then conducted screening or selection since 2020, based on full text and journal articles so that the number selected ( $n = 16$ ). The articles that were assessed for feasibility were 10 which were adjusted to the theme of the literature review. The assessment was carried out based on the feasibility with inclusion and

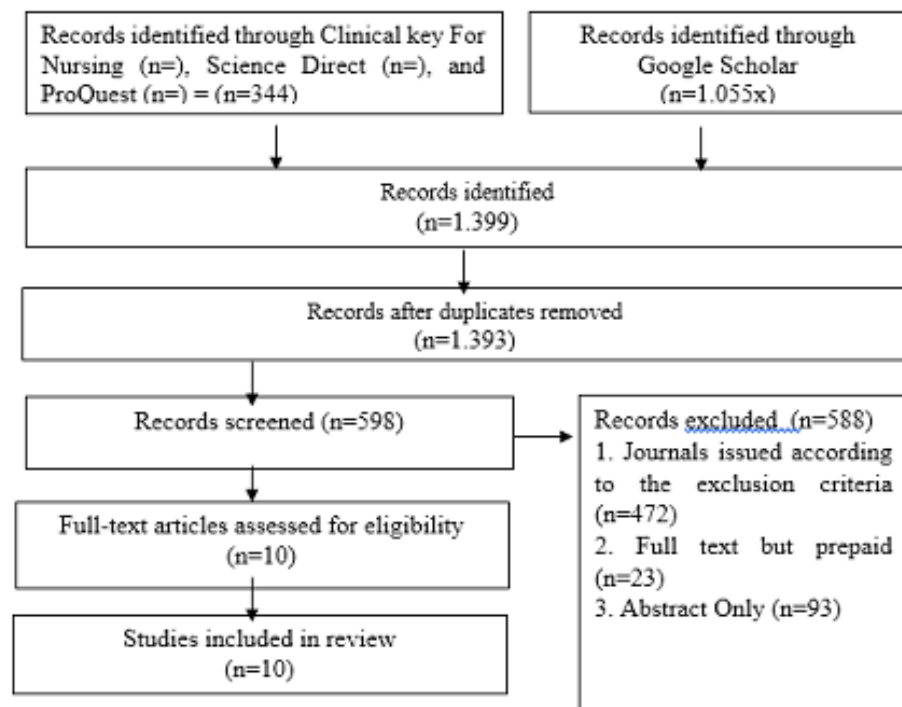


Figure 1: PRISMA Flow Chart.

exclusion criteria obtained as many as 10 articles that will be used in the preparation of the literature review.

## 2.1. Inclusion criteria

The following criteria were used to determine whether studies should be included or excluded from the review: 1). Pregnant woman. II) Prevention of anxiety in the COVID-19 pandemic. III) No comparison. IV) Anxiety in pregnant women, Levels of anxiety in pregnant women, things that affect the level of anxiety in pregnant women. V) Quasai experimental, Cross Sectional, Anonymous survey, Case control, observational descriptive, qualitative descriptive, descriptive, Quantitative analysis, literature review. VI) Year 2019-2020. VII) Bahasa and English

## 3. Results

In compiling this literature review, there are ten journal articles that have been selected by researchers using inclusion criteria related to the level of anxiety of pregnant women during the COVID-19 pandemic. Of the ten selected journals, there are three national

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## 4. Discussion

### 4.1. Identifying the level of anxiety in pregnant women during the COVID-19 period

In a study conducted by [10] when comparing the results of the presentation of the prevalence of anxiety symptoms, the results of the percentage prevalence of anxiety during pregnancy were generally 18-25%. And 59% results during the COVID-19 pandemic. There is an increase in anxiety in pregnant women because pregnant women are more worried about not getting treatment and being exposed to disease.

Research conducted [11], where the results in Canada were 31% of pregnant women experienced stress and symptoms of depression appeared from 129 respondents who were quarantined pregnant women. As many as 53.8% of pregnant women in Wuhan, China were found with psychological disorders 17%, anxiety and major depression 29%. It was also found by [11] that out of 16 articles, there were 10 articles discussing increased anxiety.

The results of this study are also strengthened by [17] that during the COVID-19 pandemic, most pregnant women show negative emotions such as anxiety which shows the mother's concern, if anxiety cannot be overcome, it will cause anxiety. continuous stress, feelings experienced by pregnant women with feelings of depression during the COVID-19 pandemic, if left for a long period of time it will have an impact on symptoms of depression, where the condition of pregnant women has feelings of hopelessness, helplessness and will greatly affect the fetus mother, compared to positive emotions.

### 4.2. Things that affect the anxiety level of pregnant women during the COVID-19 period

In the research conducted [13], the results obtained from 71 respondents who affected anxiety in pregnant women during the COVID-19 period, namely worrying about the dangers of contracting COVID-19 to children who exist and have the elderly at home

TABLE 1

[10]	Design: Literature Review Population : Pregnant Women Variable : Description of the anxiety level of pregnant women during the COVID-19 pandemic.	In the study anxiety symptoms (59%) increased above the threshold score based on a previous pre-COVID-19 cohort study that assessed symptoms in pregnant women with a similar demographic profile. The increased level of anxiety symptoms in this high group of pregnant women suggests that the psychological impact of the outbreak may be of particular concern to expectant mothers. Report comparisons of pregnancy anxiety data with meta-analyses reporting a prevalence of 18-25% and a prevalence of 16% in the US general population.
[11]	Design : Literary Review Population : Pregnant Women Variable : Psychological problems of pregnant women during the COVID-19 pandemic	In Canada, out of 129 pregnant women who were quarantined, 31% of respondents experienced post-quarantine stress and symptoms of depression. According to a study conducted in Wuhan, China, 53.8% of pregnant women experienced psychological disorders, 17% and 29% experienced major depression and anxiety symptoms.
[12]	Design : Literature Review Population: Pregnant women Variable: Psychological response of pregnant women during the COVID-19 pandemic	Of the 16 articles, namely 10 articles discussing increasing anxiety in the area of the highest Covid-19 cases, 5 articles discussing the stress of pregnant women during the COVID-19 period, and 3 articles discussing the factors of depression in pregnant women during the COVID-19 period.
[13]	Design : Quantitative Descriptive Population : Pregnant Women Variable: Health anxiety and behavioral changes in pregnant women during the COVID-19 pandemic	71 pregnant women respondents, 35% (25/71) patients prefer to isolate themselves, 32.4% (23/71) choose to stay at home from work, 19.7% (14/71) choose to work at home
[14]	Design : Cross-sectional survey Population : Pregnant Women Variables: Risk factors for symptoms of depression, anxiety, and PTSD in pregnant women during the covid-19 pandemic	Results 36.4% of respondents reported clinically significant rates of depression, 22.7% for generalized anxiety, and 10.3% for PTSD. About 18% reported a high level of COVID-19-related health concern and were 2.6 to 4.2 times more likely to score above the clinical threshold for mental health symptoms.
[15]	Design : Cross-sectional survey Population : Pregnant Women Variable : Symptoms of depression and anxiety in pregnant women during the COVID-19 pandemic.	Symptoms of anxiety and depression were substantially improved compared to similar symptoms. The group of pre-pandemic pregnant women with 37% reported clinically relevant depressive symptoms and 57% reported clinically relevant anxiety symptoms.
[16]	Design : Quasi-Experimental Population: Pregnant women Variables: Birth planning during COVID-19 with prenatal disorders and anxiety of pregnant women.	A total of 96 respondents Tele-education was offered to pregnant women about pregnancy and delivery planning during COVID-19, the average score of 48 pregnant women in the experimental group and 48 pregnant women in the control 8.75 ± 5.10 and 11.50 ± 4 ,91
[17]	Design : Cross-sectional survey Population: Pregnant women Variable : Fear and anxiety of COVID-19 mental health in pregnant women	COVID-19 anxiety and worry during pregnancy were variables that were positively and significantly correlated with mental health, and COVID-19 anxiety also had the highest positive direct effect, the correlation between them (B=0.32). The variable of happiness in the experience of pregnancy which has a significant, negative relationship with mental health disorders (B=0.29) with fear of COVID-19 through an indirect route (B=0.05). Thus, that fear of COVID-19 has a direct effect on COVID-19 anxiety.
[18]	Design : Descriptive statistics Population: Pregnant women Variable : Effects of the COVID-19 pandemic on anxiety and depressive symptoms	Results respondents 35.4% higher, Edinburgh postpartum depression (EPDS). A group comparison by year of education showed statistically significant COVID-19 on psychology, social isolation, and mean scores in the Beck Depression Inventory (BDI) and Beck Anxiety Inventory (BAI). The condition was more severe in the case group than in the control group (psychology).
[9]	Design : Qualitative description Population: Pregnant women Variable : Perinatal anxiety and depression during COVID-19	The outbreak of the COVID-19 viral disease puts perinatal women at a higher risk for developing anxiety and depression. Uncertainty, fear, and confusion in the medical, social, economic, occupational, and political aspects of life add to the stressors experienced by perinatal women.

because children and the elderly have susceptibility to COVID-19 transmission, the supply of food, drink, and toiletries that must be met in the household every day changes during the COVID-19 pandemic due to having to isolate at home to maintain a distance of making food supplies and food that has to be bought more than usual and runs out quickly makes pregnant women feel worried, Child allowances or child costs such as those who are still in education for pregnant women and husbands who work but have to lose their jobs due to the impact of the COVID-19 pandemic so that it becomes one of the causes that make pregnant women feel worried for their children, and pregnant women think about the impact ak to the fetus itself, if the mother is positive for COVID-19 what about the fetus being conceived, whether the health of the fetus will be infected or not.

In addition, research conducted by [14] showed high anxiety results with factors about the first child where a woman who had just felt like a mother but had to experience a COVID-19 pandemic, the anxiety felt by pregnant women also on income that is not commensurate with the needs that must be fulfilled, children's education with the addition of internet fees that must be available, and the health of families at home and distant relatives.

### **4.3. The effect of anxiety on pregnant women during the COVID-19 period**

Research by [18] found that the effects experienced by pregnant women during the COVID-19 pandemic were due to social isolation.

The results of the study were strengthened by [15] with the assessors of the results obtained from 1987 respondents, namely pregnant women experiencing changes in prenatal care who previously visited the hospital four times to three times, pregnant women also experiencing job losses due to the impact of the COVID-19 pandemic carried out by these companies, experiencing social isolation experienced by pregnant women to carry out social activities in the surrounding environment and only doing activities at home, pregnant women worry about threats to their babies such as stunted fetal growth, stillbirth or stillbirth, and premature delivery, pregnant women also feel a threat to their lives because they are very vulnerable to contracting COVID-19 and seeing the situation where there is an increase in deaths exposed to COVID-19.

#### 4.4. Efforts to handle the anxiety level of pregnant women during the COVID-19 period

Research by [9] using tele-health as a communication tool in providing health care to pregnant women via video and telephone. The treatment provided includes education related to anxiety felt by pregnant women, changing thought patterns, cognitive behavioral therapy, breathing techniques, yoga, meditation, light exercise, and the need for family support.

In the research conducted [16], using tele-education for pregnant women. A total of 96 pregnant women were divided into the experimental group as many as 48 respondents and the control group as many as 48 respondents, the results of this study showed that in the experimental group there was a decrease in anxiety for pregnant women who received tele-education regarding pregnancy and birth planning during the COVID-19 pandemic, while in the control group there was no change in pregnant women who did not receive tele-education.

### 5. Conclusion

Based on literature reviews from ten research journals, it can be concluded, identifying the level of anxiety in pregnant women during the COVID-19 period, it was found that based on the figures obtained high levels of anxiety in pregnant women during the COVID-19 pandemic, this could have a serious impact on the condition of the mother and fetus. . Things that affect the level of anxiety of pregnant women during the COVID-19 period are caused by various factors that have existed before and after the current COVID-19 pandemic conditions, groups who are vulnerable to COVID-19, social isolation, lack of support from family and relatives, and socioeconomic. The effects on pregnant women during the COVID-19 period are feeling the limitations of activities that are only carried out at home, the needs that must be fulfilled during the COVID-19 pandemic, changes in the schedule of visits to control the content, and changes in social support in the form of material and spiritual. Efforts to handle the anxiety level of pregnant women during the COVID-19 period by using tele-health and tele-education that can use technology as treatment that is used remotely.

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