Mental Health of Pregnant Women during the Covid-19 Pandemic: Scoping Review

Irne Wida Desiyanti, Rosmita Nuzuliana

Faculty of Health Sciences, Universitas Aisyiyah Yogyakarta, Indonesia

ABSTRACT

Background: Mental health disorders in pregnant women are highly associated with reduced involvement in support, which can lead to pregnant women having to stay home or be isolated during the COVID-19 epidemic. Here, mental health disorders are including depression, fear, and anxiety. This disorder actually had existed before the pandemic and increased when the WHO announced the COVID-19.

Purpose: This study aims to analyze the mental health condition of pregnant women during the COVID-19 pandemic.

Methods: In the preparation of this *scoping review*, three databases are used, namely PubMed, Wiley, and Google Scholar. These databases were used to find the articles. The articles were considered relevant if they could answer some research questions of *scoping review* by using article search with specific *keywords*. Some relevant articles were selected by setting inclusion and exclusion criteria. Following that, *Prism Flow Chart* was used in the selection process to find the right article. *Critical Appraisal* was then performed to assess the quality of each article. Those articles were further summarized by using *Data Charting* and compiled for analysis based on the available *evidence-based* aspect. The last step was reporting the results.

Results: In this study, the results obtained were 8 selected articles. A total of 7 articles fall into the grade A category, consisting of 2 articles of *non-randomized* quantitative research design, 4 descriptive quantitative articles, and 1 qualitative article. 1 article is classified in grade B on descriptive quantitative *study design*. There are no research articles categorized as grade C.

Conclusion: Significantly increased clinical problems related to the mental health of pregnant women during the COVID-19 pandemic are including anxiety, fear, and depressive symptoms. Compared to the pre-pandemic situation, the increase is caused by several factors such as pandemic-related stresses arising from related social restrictions, personal health and the safety of the baby during pregnancy, and the health of family members.

Keywords: mental health; pregnant women; COVID-19 pandemic

INTRODUCTION

In January 2020, *World Health Organization* (2020) confirmed a new infectious virus called Coronavirus. This virus disrupts the respiratory system and first appeared and was discovered in Wuhan City, Hubei Province, China. It was then reported and confirmed to WHO in December 2019 (Zhou, Yu, Fan, et al., 2020). The COVID-19 pandemic affects the mental health of people worldwide. New living conditions include confinement, changes in daily routine, the transformation of social life, loss of freedom, worries about health, and financial problems are among other consequences (Chulach et al., 2016a). Pandemics can exacerbate and disrupt health inequalities in the society, primarily which affect groups of people with mental health problems and physical disabilities and unemployment groups or specific vulnerable groups, such as pregnant women (especially in low- and middle-income countries) (Chulach et al., 2016b; Coplan & Bowker, 2014).

The impact of the COVID-19 pandemic has also caused several changes in behavior patterns, such as social distancing and keeping a distance. These changes increase psychological problems such as anxiety and depression in mothers during pregnancy in pandemic situations (Purwaningsih, 2020a). Covid-19 pandemics raise many issues: mental health disorders in pregnant and postpartum women or after childbirth. The presence of depression, anxiety, and symptoms of post-traumatic stress disorder is also enhanced by grief and health concerns related to Covid-19 (Yasinta & Fita, n.d.). In addition, the COVID-19 pandemic has had a psychological impact on pregnant women in the form of stress, anxiety, and even depression (Wulandari et al., 2020).

Anxiety is a typical response to any stressful situation. Pregnant women and the mental and physical changes during gestation are more likely to be at risk. The prevalence of anxiety disorders during pregnancy is 10% in developed countries and 25% in developing countries (Mappa et al., 2020a). Research conducted by (Saccone, 2020a) reveals that 53% of pregnant women experience high anxiety about the vertical transmission of COVID-19 to their fetus during their first trimester (Saccone, 2020b).

In his research, (Lebel et al., 2020b) found substantially increased symptoms of anxiety and depression compared with a similar pre-pandemic pregnancy group, with 37% reporting clinically relevant depressive symptoms and 57% reporting clinically relevant anxiety symptoms. Higher symptoms of depression and anxiety were linked to greater concern about the threat of COVID-19. About 72.2% reported that they have moderate levels of perceived stress, 51.6% reported mild to moderate depressive symptoms, and 39.4% reported mild to moderate anxiety symptoms. In this study, women aged 21-30 years were more at a high risk of experiencing mental health problems than those aged 31-40 years (Lebel et al., 2020b).

The researchers found that about 9 percent of the participants had extreme sadness, loss, or disappointment due to the pandemic. This group is approximately five times more likely to experience clinically significant mental health symptoms. The result of research conducted by (Zainiyah & Susanti, 2020) in the Madura region of East Java, Indonesia, showed that 31.4% of pregnant women experienced very severe

anxiety, 12.9% of pregnant women experienced severe anxiety, and the rest of the mothers did not experience anxiety or were in normal conditions during this Covid-19 pandemic. This proves that the COVID-19 pandemic does increase anxiety in pregnant women.

Pregnant women who experience anxiety and worries are mostly afraid that the COVID-19 disease may result in potential impairment of fetal growth in their womb (Mappa et al., 2020a). Some reasons behind the fear and stress in pregnant women are the concern that their unborn child is infected with the Coronavirus and their fears about themselves being infected (Lebel et al., 2020a). Another study also indicates that roughly 63% of pregnant women have increased anxiety about the health of their fetuses (Corbett et al., 2020).

Increased anxiety in pregnant women has caused mothers to miss their scheduled antenatal visits during the COVID-19 pandemic. This number of visits is higher than hospital data before the pandemic. Psychological changes of pregnant women can affect the physiological activities of the body. The effects of anxiety include heart rate, blood pressure, adrenaline production, sweat gland activity, gastric acid secretion, and others (Meihartati et al., 2018). Other studies also mention psychological aspects in pregnant women, such as trauma, stress, or psychological pressure that triggers fatigue, lethargy, irritability, anxiety, dizziness, nausea, and feelings of laziness (Detiana, 2010). Meanwhile, pregnant women must maintain their physical and psychological conditions during pregnancy so that their babies can grow and develop healthy (Kuswandi, 2013).

Any steps and efforts implemented to avoid the spread of the virus during the ongoing pandemic have an indirect negative effect on groups of pregnant women. These include the implementation of the Health Protocol by WHO (2020), namely using masks, keeping the distance, and washing hands (3M), as well as support in the form of counseling guidance using effective online communication with health workers. This policy has been implemented in almost all countries in the world affected by Covid 19. Some countries even have enacted Lockdown/Isolation Policies for areas that have very fast spreads. This policy can lead to interrupted care activity during the prenatal period and attention to the health needs of pregnant women and the health of the fetus (or other children). With regard to their psychological effects, excessive stress, emergencies, or natural disasters can be proven to have an unfavorable impact on the mental health of pregnant women and children's well-being (López-Morales et al., 2020).

OBJECTIVE

The general objective of this *Scoping Review* is to find out the Mental Health of Pregnant Women during the Covid-19 Pandemic.

METHODS

This research used *scoping review* method to examine the extent and nature of research activities, determine the value of conducting a full systematic review,

summarize and distribute the findings, and identify research gaps in the existing literature (Arksey & O'Malley, 2019) in (Levac et al., 2012).

Identification of Research Topic Problems

Identifying the problem that will be used as a journal material *review*, namely the mental health of pregnant women during the COVID-19 pandemic.

Identification of Research Questions

Table 1. Framework Scoping Review

P (Population)	E (Exposure)	O (Outcomes)/(T) Themes
Pregnant women with mental disorders	*Mental Health*	*Anxiety symptoms* *Stress/Depression symptoms*

Based on the *framework* above, the *scoping review* question is how does the COVID-19 pandemic affect pregnant women's mental health

Eligibility Criteria

Based on the *scoping review* question in the previous step, the inclusion and exclusion criteria (of the articles) can be compiled using PICO (*Population, Intervention, Comparison, Outcome*) criteria.

Table 2 Inclusion Criteria by Type

Criteria	Inclusion	Exclusion
Population/ Problem	- Pregnant women with mental disorders - Research articles that discuss the mental health of pregnant women during the COVID-19 pandemic; - A research article published in 2020 - Research articles published in English or Indonesian - Full-Text Journal	- Normal pregnant women - Articles from the last 10 years
Intervention	- Factors related to the use of traditional contraceptives	
Comparison	- Traditional Contraceptive Method	
Outcomes	- Factors related to the use of traditional contraceptives	

Literature Review

The initial stage in the search for articles was determining the keywords used in the 4 selected databases. The databases are *PubMed*, *Wiley Online Library*, and *Google Scholar*. After determining the relevant database, the researcher created some keywords used in the *review* variables of the journal. The first step was entering keywords that

matched the theme to specify the literature search, then determining the literature search period as follows: "Woman"; "Mental health" OR "Anxiety" OR "Stress" OR "Depression"; "Pregnant" OR "Prenatal" OR "Antenatal"; "COVID-19" OR "Coronavirus" OR "Pandemic" OR "Covid19" OR "SARS-CoV-2".

According to the databases, 186 articles that matched the keyword search were found. By using the app at *https://get.covidence.org/*, all selected articles in Mendeley were included in the covidence app. The result shows that there were 16 duplicate articles from 186 articles. Subsequently, articles were eliminated based on the title and abstract so that 104 articles were excluded since they were irrelevant. Eventually, there were 66 relevant articles remaining. Those 66 articles were then proceeded to the *full text-reading* step so that the total selected articles were 8 articles. The selection results were divided into 4 databases, consisting of 6 articles in Pubmed, 1 article in Wiley, and 1 article in Google Scholar.

PRISMA stands for Preferred Reporting Items for Systematic Reviews and Meta-Analysis. This is the minimum evidence-based item set for reporting in systematic reviews and meta-analyses (Tetzlaff & Altman, 2009).
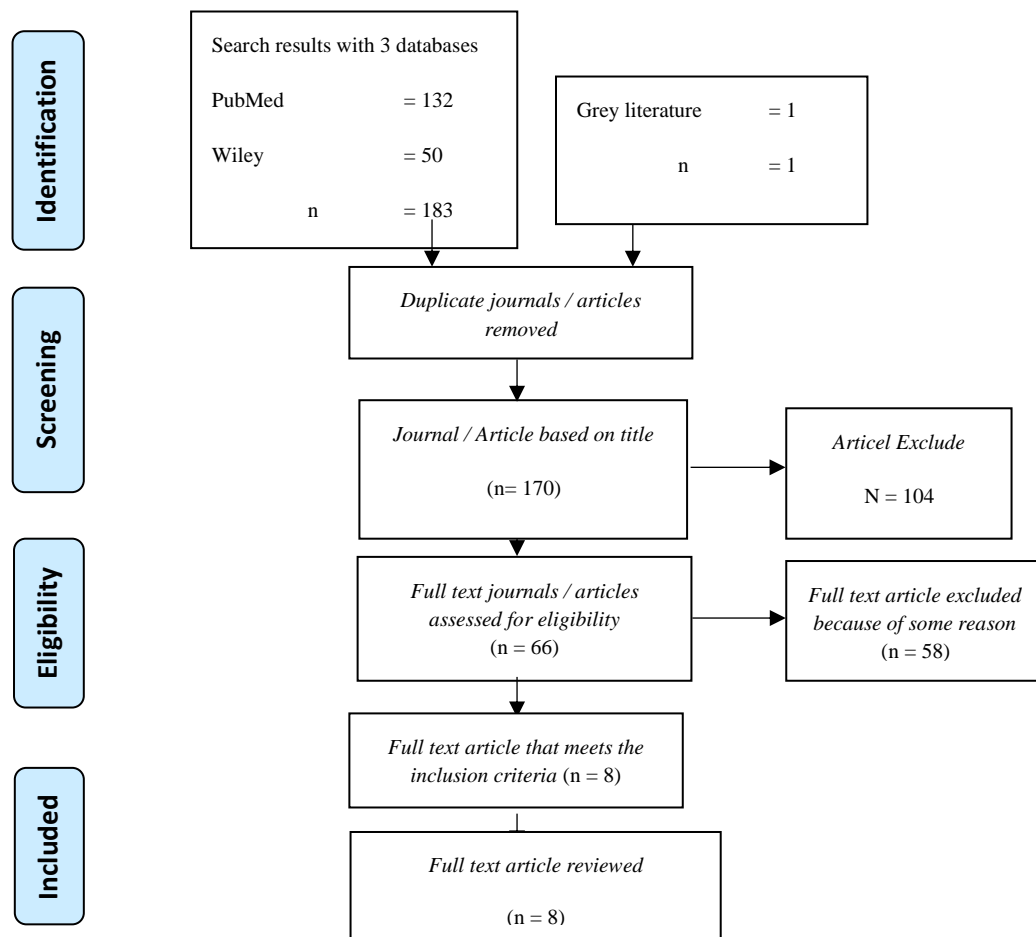

Figure 1. Prisma Flow Chart From Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009).

Data Extraction

Data extraction aims to find out the conclusions that answer questions from the literature (Dobbins, 2017)

No.	Author/Year/Title	Country	Aim of Study	Type Of Research	Data Collection	Participant / Sample Size	Results
1	(Dong, Hu, et al., 2020) *Investigation on the mental health status of pregnant women in China during the Pandemic of COVID-19*	China	Evaluating anxiety and depression in pregnant women in China and the factors that affect them during the 2019 coronavirus disease (COVID-19) pandemic	Descriptive quantitative study	questionnaire survey	156 pregnant women	During the COVID-19 epidemic, pregnant women's anxiety levels are the same as before the epidemic, while the depression levels were significantly higher. The anxiety and depression levels of pregnant women living in Wuhan, the epidemic's epicenter, are not higher than pregnant women in other regions during the COVID-19 epidemic. Furthermore, the mental health condition of pregnant women with COVID-19 is not worse
2	(Liu et al., 2020a) *Risk factors for depression, anxiety, and PTSD symptoms in perinatal women during the COVID-19 pandemic*	United States	Assessed COVID-19-related health concerns and grief, and current mental health symptoms (depression, generalized anxiety, and PTSD) in 1,123 US women during the COVID-19 pandemic	Descriptive quantitative study	questionnaire survey	1,123 Pregnant women	Perinatal women with pre-existing mental health diagnoses show increased symptoms during the COVID-19 pandemic. While the causes are inconclusive, the health concerns and grief experiences related to COVID-19 may raise the likelihood of mental health symptoms among those without pre-existing mental health problems. Providers should develop strategies to address health-related worry and grief in their practice.
3	(Farrell et al., 2020) *The impact of the COVID-19 pandemic on the perinatal mental health of women/ A*	Qatar	To study the impact of the COVID-19 pandemic and restrictions on women's perinatal mental health in Qatar.	Quantitative non-randomized study	The data collection was conducted using questionnaires	Sample size: 288 pregnant women	The results of this study indicate that there are clinically significant problems with anxiety and depressive symptoms during the COVID-19 pandemic in pregnant and postpartum women who are included in vulnerable groups in terms of mental health. It seems like the increase is mainly caused by the worries and stresses related to the pandemic arising from the associated social restrictions, and this woman's primary concern relates to the safety of her unborn child and family members. These results should be an indicator to immediately screen for mental health morbidity among pregnant women during major health crises. Women reported that access to information was beneficial. Low physical exercise absorption. These findings can help inform public health initiatives, and guide targeted health education

						campaigns in the region.
4	(Mizrak Sahin & Kabakci, 2020) The experiences *of pregnant women during the COVID-19 pandemic in Turkey: A qualitative study*	Turkey	In our study, the concerns, problems, and attitudes of pregnant women related to the disease during pandemic will be determined by detailed discussions based on individual experiences, and by increasing the awareness of midwives and nurses about what pregnant women have experienced so far	Qualitative Study	Phone interview	15 pregnant women	The results show that the coronavirus outbreak has a significant potential to cause anxiety, distress, and fear, which have adverse emotional effects on pregnant women. It will be helpful to raise midwives' and nurses' awareness not only about the physical health of pregnant women but also their mental health and to collaborate with mental health professionals if necessary.
5	(Kahyaoglu Sut & Kucukkaya, 2020) *Anxiety, depression, and related factors in pregnant women during the COVID-19 pandemic in Turkey: A web-based cross-sectional study/ A*	Turkey	To examine the prevalence and levels of anxiety and depression and factors associated with pregnant women during the COVID-19 pandemic.	Quantitative non-randomized study	Data was collected by using an online web-based survey.	Participants : 403 pregnant women over 18 years old	The prevalence of anxiety and depression are 64.5% and 56.3%, respectively. Work status, physical activity status, discomfort from visiting the hospital, knowing information about COVID-19, and receiving information from healthcare workers about COVID-19 are some factors related to anxiety (p < 0.05). Education level, physical activity status, discomfort because of hospital visits, and having information about COVID-19 are factors associated with depression (p <.05)
6	(Mappa et al., 2020b) *Effects of coronavirus 19 pandemic on maternal anxiety during pregnancy: a prospective observational study*	Italy	To evaluate the psychological impact of the COVID-19 pandemic on pregnant women in Italy.	Descriptive quantitative study	The data was collected by using a semi-structured online questionnaire sent via email.	Participants : 200 pregnant women	Due to the COVID-19 pandemic, the number of women with abnormal levels of anxiety doubled. This finding validates the role of using remote questionnaires to identify women at high risk for anxiety disorders that enabling the activation of support procedures.
7	(Lebel et al., 2020a) *Elevated depression and anxiety symptoms among pregnant individuals during the COVID-19*	Canada	To determine the prevalence of anxiety and depressive symptoms in pregnant women during the COVID-19 pandemic.	Descriptive quantitative study	The data was collected by using a questionnaire.	Participants : 1987 pregnant women in Canada	This study shows an increase in anxiety and depression symptoms in pregnant individuals during the COVID-19 pandemic, which may have a long-term impact on their children. Potential protective factors include increased social support and exercise, as these are associated with lower symptoms and thus may help reduce long-term adverse outcomes.

| 8 | (Khatri et al., 2020)

Psychological Status of Pregnant Women during COVID-19 Pandemic: A Cross-Sectional Study from Mumbai | India | Investigating the impact of the ongoing COVID-19 pandemic on the psychological status of pregnant women. | Descriptive quantitative study | The data was collected by using a questionnaire. | Participants : 98 pregnant women | The high rates of perceived stress, depression, and anxiety symptoms in pregnant women found in this study indicate the need to include psychological screening and intervention in routine antenatal care during the ongoing pandemic. |

Table 3. Data Extraction

Critical Appraisal

At this *critical appraisal* stage, any tools used were *Mixed Method Appraisal Tool* (MMAT). The MMAT is designed to assess methodological quality from five research categories: qualitative research, *randomized controlled trials*, *non-randomized* study, descriptive quantitative studies, and *mixed-method* study (Hong et al., 2018). The searching process has been performed to 8 articles searched according to the topic with the *study design* of *non-randomized* quantitative, quantitative and qualitative descriptive. Furthermore, the articles were categorized based on articles' quality with the grade scale of A (Good), B (Quite Good), and C (Poor) to assess the article, respectively. The assessment qualifications are as follows:

0   = *No*
1   = *Can't Tell*
2   = *Yes*

After passing *the critical appraisal* stage, there are 7 articles included in the grade A category (A1, A2, A3, A4, A5, A6, A8) which consist of 2 articles with *non-randomized* quantitative research design, 4 descriptive quantitative articles, and 1 qualitative article. 1 article is classified in grade B (A7) on descriptive quantitative *study design*. There are no research articles categorized as grade C.

RESULTS
Characteristics

The characteristics of the articles used in this study were previously checked using a *critical appraisal* process so that 8 articles were eventually selected. Based on the *critical appraisal results,* 5 articles use descriptive quantitative studies, 2 articles use non-randomized quantitative studies, and 1 article use qualitative studies.
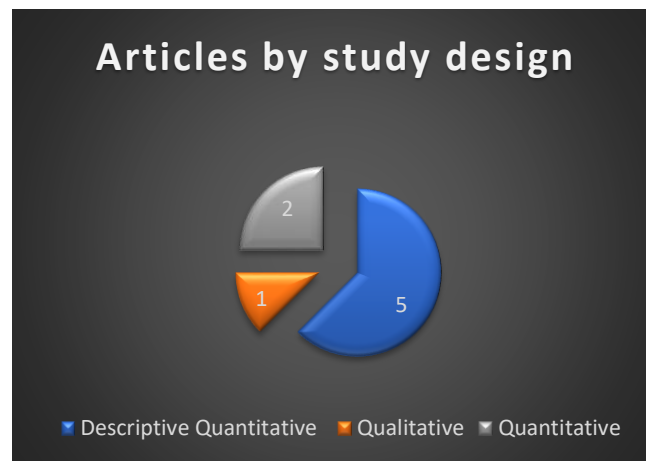
Figure 2. Articles by study design

Based on the quality of the research, the articles that have been proceeded to *Critical Appraisal* are then grouped based on the quality of the article. The grouping results are: 7 articles fall into the category A grade (A1, A2, A3, A4, A5, A6, A8) consisting of 2 articles with *non-randomized* quantitative research design, 4 descriptive quantitative articles, and 1 qualitative article. 1 article is classified in grade B (A7) on descriptive quantitative *study design*.

Figure 3. Characteristics of Articles by Research Quality

The research characteristic based on the place of research is divided into 7 countries spread across several parts of the world. It was then categorized by developed countries and developing countries.

Figure 4. Characteristics of Articles by Research Place

Theme Mapping
The themes compiled in this review are as follows:
a. Psychological problems of pregnant women during the pandemic
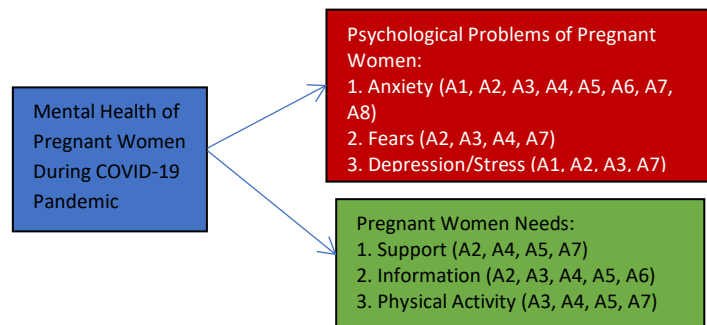b. The needs of pregnant women during the COVID-19 pandemic.

Figure 5. Theme Mapping

DISCUSSION

Mother's Psychological Problems During COVID-19 Pandemic
Anxiety

Anxiety and depression frequently occur among pregnant women. Detection rates of anxiety and depression vary across countries and regions. In general, about 4–15% of pregnant women show symptoms of depression during pregnancy, 5–13% of pregnant women have anxiety symptoms, and 0.9–3.8% of pregnant women experience depression and anxiety (Dong, Huang, & Zhang, 2020). During the COVID-19 pandemic, the proportion of anxiety among pregnant women in China was the same as before the epidemic. At the same time, depression levels significantly increased compared to the depression levels before the pandemic. Paying attention to health has been associated with clinically significant levels of mental health symptoms in pregnant women during the COVID-19 pandemic, and the pandemic has become an essential source of these health problems (Zhou, Yu, Du, et al., 2020). The anxiety occurs mainly because pregnant women worry for the health of the baby, the health of themselves and their families (Kahyaoglu Sut & Kucukkaya, 2020; Mizrak Sahin & Kabakci, 2020).

The COVID-19 pandemic tends to add to the stress for perinatal women (Berthelot et al., 2020). Worrying the risk of infection during pregnancy and the puerperium and transmission to the baby and other family members in (Liu et al., 2020b). (Khatri et al., 2020) in his research reported that the anxiety symptoms experienced by pregnant women were in the mild to moderate levels. The study conducted in Madura, East Java, showed that 31.4% of pregnant women experienced very severe anxiety, while 12.9% of pregnant women experienced severe anxiety during this Covid-19 pandemic (Zainiyah & Susanti, 2020).

The risk of anxiety and depression also causes pregnant women to refuse to visit any hospital because they are afraid of infection. Besides, they will delay antenatal care and hospitalization before delivery. In addition, they also want to give birth by cesarean rather than waiting for delivery in the hospital. There are social distancing and quarantine, as well as changes in prenatal visits and changes in access to health facilities during the COVID-19 pandemic, are other causes of increased anxiety in mothers during pregnancy.

According to the research of, it is said that reported high symptoms of anxiety and depression are at a very alarming rate for the health of mothers and children. Children whose mothers experienced severe prenatal stress were at higher risk of having cognitive and behavioral problems and mental illness in their own lives. The most significant impact of anxiety symptoms experienced by mothers is caused by social isolation so that mothers cannot continually monitor the condition of themselves and their fetuses due to the changes in prenatal visits during the Covid-19 pandemic.

Fear

(Liu et al., 2020b)in his research mentioned that pregnant woman who was negatively affected by the COVID-19 pandemic based on their reported worry and sadness were more likely to have increased psychiatric distress, regardless of having a pre-existing mental health condition. Thus, the concern and grief associated with the pandemic can be a clinically significant driver of mental health symptoms even for those with no previous psychiatric history. This proves that the COVID-19 pandemic is a life stressor that contributes to psychological distress and is a significant risk factor for perinatal mental health problems.

The reason behind pregnant women's fear during the COVID-19 pandemic led them to postpone their check-up schedule at their sole option. They often make hasty decisions because they cannot contact medical personnel or are afraid of being infected with the virus. On the other hand, they also worry about not getting the necessary prenatal care, relationship tensions, and social isolation due to the COVID-19 pandemic.

Depression

In general, anxiety and depression are considered to be closely related, and several factors that lead to anxiety can also cause depression. In terms of sociopsychological factors, stress and social support are the two factors that bring the greatest impact on pregnant women. COVID-19-related worries about health and experiences of grief due to the COVID-19 pandemic were highly associated with mental health symptoms, with sociodemographic and mental health variables control. According to Liu's (2020) research, one in three women reported the possibility of depression. In addition, in research (Dong, Huang, Cui, et al., 2020), it was found that the impact of depression during pregnancy was greater than anxiety during this pandemic compared to the pre-pandemic period. In addition, depression is associated with reduced involvement in support, which causes pregnant women to stay home or be isolated during epidemics. Pregnant women cannot undergo obstetric examinations and attend many social activities. These challenges caused pregnant women to suffer from severe depression during the COVID-19 pandemic.

Depression during pregnancy is linked to preterm birth and increases the risk of low birth weight. Based on the etiology, prenatal depression has a more substantial impact on low birth weight than preterm birth. Therefore, the mental health of pregnant women must be thoroughly evaluated, including during the COVID-19 outbreak, so that psychological counseling must be carried out on time.

Given that rates of mental health conditions, notably increased depression in pregnant women, have raised substantially during the pandemic period, this could be attributed to psychological effects such as depression, anxiety, and fear of the pandemic and related restrictions (Farrel et al., 2020). Based on the research of, high anxiety and depression symptoms are reported to endanger the health of mothers and children. Children whose mothers experienced severe prenatal stress were at higher risk of having

cognitive and behavioral problems and mental illness in their own lives. The greatest effect of these anxiety symptoms is due to social isolation.

The Needs of Pregnant Women during COVID-19 Pandemic
Support

Increased perceived social support and increased physical activity were associated with reduced symptoms of mental disorders. According to the research of (Mizrak Sahin & Kabakci, 2020), it is known that the increased risk of perinatal anxiety and depression means that many pregnant women need greater support, especially from professional healthcare workers during pregnancy, childbirth, and the puerperium. This raises the need for pregnant women during a pandemic to find out information related to the COVID-19 pandemic following the guidelines of professional healthcare workers, pay regular visits about what can be done by telephone, and also how to provide proper care so that the risk of getting sick during pregnancy can be avoided.

The Health Protocol that has been implemented by WHO (maintaining a minimum distance of 1 meter) has prevented access to social support throughout the population. Pregnant women especially feel this during this pandemic, where they and their families urgently need other social support. (Liu et al., 2020a). In addition, timely psychological support should be provided to pregnant women with mental health problems. Healthcare workers should provide online psychological support to pregnant women.

Another factor that affects this level of anxiety is the presence or absence of support from families and nurses in helping to reduce the perception of risk, which causes anxiety (Tantona, 2020). The COVID-19 pandemic has a significant impact on the psychological health of pregnant women, so it is necessary to manage psychological distress reduction such as psychoeducation related to COVID-19 prevention (Wulandari et al., 2020).

Information regarding the Covid-19 Pandemic

The uncertain information about when the COVID-19 pandemic will ease increases the anxiety of pregnant women . Pregnant women are concerned about the harmful effects of the virus on their health and the health of their fetus.

The present information transition to *telehealth* may complicate the provider's ability to administer and assess screening questionnaires and collect a history of pre-existing mental health conditions. These findings emphasize the importance of routine mental health screenings in obstetrics. This is because women with pre-existing mental health conditions should be considered to have a higher risk for symptom severity and the development of new symptoms. Increasing the frequency of mental health care by consulting with psychiatric access programs to obtain mental health resources.

Concerning coping strategies in pregnant women in Qatar, recognizing information about the pandemic and precautions to be taken during pregnancy, and the most valuable sources of this assistance are healthcare workers (midwives) and televised public health information. In addition, healthcare workers play a crucial role in reducing anxiety and stress in the Covid-19 pandemic by providing health services.

In addition, the research of explains that the lack of direct advice from healthcare workers about what to do during pregnancy can make pregnant women having excessive anxiety. Pregnant women stated that they often received information from television and social media because they could not contact healthcare workers. It raises many more problems and concerns because the information is deemed unofficial by health service providers and the government. However, pregnant women receiving

information from health care providers, and their understanding of COVID-19 is obtained mainly from journals, television, and web consultations.

Improper use of social media, such as spreading inaccurate and ineligible news related to COVID-19, raises the risk of anxiety and fear of being infected (Kahyaoglu Sut & Kucukkaya, 2020). In addition, health professionals must provide evidence-based information on the effects of COVID-19 on pregnancy according to the scientific literature for pregnant women.

Physical Activity

In the research of (Kahyaoglu Sut & Kucukkaya, 2020), it is revealed that regular physical activity is an essential factor associated with anxiety and depression during pregnancy during the COVID-19 pandemic. Pregnant women who do not engage in regular physical activity have a higher risk of developing anxiety and depression. Typical activity during pregnancy has been shown to have a protective effect on the development of anxiety and depressive symptoms.

A study of pregnant women during the COVID-19 pandemic revealed a linkage between high physical activity and decreased symptoms of anxiety and depression. Exercise has previously been shown to reduce anxiety and depressive symptoms in pregnant women and can be an effective strategy for improving mental health. However, it is traditionally believed that exercise during pregnancy poses risks, so the level of physical activity during pregnancy is low in the Middle East region (Farrel et al., 2020).

The majority of pregnant women stated that they have different hobbies at home and prefer to do activities that are beneficial for overcoming anxiety and worries due to the pandemic process. Some pregnant women say they refuse to watch the news to avoid the process of anxiety. However, the implications for pandemic control measures are limiting opportunities for outdoor physical activity (for example, closing parks, beaches, and gyms) during the COVID-19 pandemic. Therefore, physical activity is only carried out in the home environment, such as doing sports, reading, cooking, having light exercise, and so on, to reduce anxiety and depression in pregnant women during the pandemic.

CONCLUSION

The COVID-19 pandemic has become a global pandemic that can lead to mental health problems at vulnerable risks, such as pregnant women. Significantly increased clinical issues related to the mental health of pregnant women during the COVID-19 pandemic were including anxiety, fear, and depressive symptoms compared to the pre-pandemic situation. The increase was caused by several factors such as pandemic-related stresses arising from related social restrictions, personal health and the safety of the baby during pregnancy, and the health of family members. Therefore, healthcare workers need to support pregnant women by providing special handling and attention during the pandemic. This can be done by equipping pregnant women with the correct information regarding the COVID-19 pandemic, screening for the mental health of pregnant women, and providing intense assistance to mothers during pregnancy, childbirth, and the postpartum period. Hopefully, further research can explore the prevention of mental health disorders in pregnant women and mental disorders in pregnant women.

STUDY LIMITATION

   This study does not examine more deeply on how to address mental health problems in pregnant women during the Covid-19 pandemic so that further researchers could discuss how healthcare workers can give a hand if mental health disorders arise in pregnant women.

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