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FACTORS CAUSING DEPRESSION FOR PREGNANT WOMEN IN THE ERA OF THE COVID-19 PANDEMIC: SCOPING REVIEW

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ABSTRACT

Background: The COVID-19 pandemic has forced the country to implement mass quarantine, social isolation occurs, job loss, increased parenting responsibilities, fear of illness, and restrictions on family gatherings, religious celebrations, births, and funerals. The experience of isolation plus rumors in the mass media. All of that causes fear, including in pregnant women. Depression in pregnant women has become a significant public health problem with a prevalence of 26.0% and during the 29.6% COVID-19 pandemic, there was an increase of 3.4%. The prevalence of depression in pregnant women was higher at 32 weeks of gestation (13.5%) compared to 8 weeks postpartum (9.1%). Objective: To discover the factors that cause depression in pregnant women in the era of the covid-19 pandemic. Method: Scoping review adapting Arksey and O'Malley framework. Search articles using three databases (PubMed, EBSCO, and ProQuest). Keywords used (Factor) AND (Depression)) AND (Pregnancy)) AND (Covid-9)). Review selection and characterization were carried out using a Critical Appraisal assessment using the Joanna Briggs Institute (JBI) tool. Results: 6 articles out of 1,111 were selected based on inclusion and exclusion criteria. Factors that cause depression in pregnant women in the era of the covid-19 pandemic are described in 1 theme, namely, factors that cause depression in pregnant women in the era of the covid-19 pandemic. Conclusion: Factors causing depression in pregnant women in the era of the covid-19 pandemic, namely, concerns about the transmission of covid to mothers and babies, concerns about covid-19, light exercise, and limited health services.

Keywords: Factors, depression, pregnant women, and covid-19

INTRODUCTION

Since December 2019 the Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-CoV-2) pandemic has spread, along with an increase in the prevalence of mental health disorders in Indonesia[1], with the covid-19 pandemic, more and more countries are in mass quarantine[2]. The COVID-19 pandemic has led to job loss, social isolation and unemployment, increased childcare and homeschooling responsibilities and fears of illness.[3]. Covid-19 can cause stress, including financial pressure, increased depression and disrupted fetal development[4]. Isolation and rumors spreading on social media have disrupted mental health[2]. Social life is also affected

such as family gatherings, religious celebrations, births and funerals[2]. All of these contribute to improving mental health[3]

In pregnant women, depression is a mood disorder characterized by feelings of sadness, emptiness, loss, anger, or irritable mood accompanied by somatic and cognitive changes.[5]. The prevalence of depression in pregnant women from low to lower middle income countries is estimated at 15.6%. [6]. Depression in pregnant women has become a major public health problem with a prevalence of 25.3%. The prevalence of pregnant women with depressive disorders can occur in the first trimester of pregnancy (4%), second trimester (12.8%) and third trimester (12.0%). The prevalence of depression in pregnant women is higher at 32 weeks of gestation (13.5%) compared to 8 weeks postpartum (9.1%) [7].

Based on two studies in China and in Canada comparing mental health outcomes in pregnant women who were recruited before and after *coronavirusdisease-19* (covid-19). The Chinese study recruited a total of 4,124 pregnant women from 10 different provinces to assess impact *coronavirusdisease-19* (covid-19) on the prevalence of depression and anxiety and associated risk factors. Pregnant women assessed after the pandemic *coronavirusdisease-19* (covid-19) had a higher prevalence of depressive symptoms (29.6 vs. 26.0%) and a 3.4% increase.

METHOD

The framework used in this scoping review adopts from Arksey and O'Malley [8]. Stage (1) identify scoping review questions, (2) identify relevant articles, (3) select articles, (4) chart data, (5) compile, summarize and report results [9].

Identifying Research Questions

Researchers use the PEOS framework. What are the factors that cause depression in pregnant women during the Covid-19 pandemic?

Article Selection

Table 1. Article Selection

Author/year/city/method/no.	Destination	Participant/ Number of Samples
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[10]/2020/Iran/Cross-sectional/1	Knowing the predictor factors in pregnant women in Iran during the Covid-19 pandemic.	205 pregnant women at the Tabriz Iran health center in 2019
[11]/2020/Canada/sectional/3	Cross- Knowing the factors that cause depression in pregnant women in the era of the Covid-19 pandemic	Between 14 April-8 May 2020, 900 eligible women, 520 pregnant
[12]/2020/Canada/Cross-sectional/4	Knowing the factors that cause depression in pregnant women in the era of the Covid-19 pandemic	1987 pregnant women in trimesters I, II, III and primipara, multi, and nulliparous pregnant women
[13]/2021/United States of America/Cross-sectional/5	Knowing the predictors of depression in pregnant women in the United States at the start of the COVID-19 pandemic	524 pregnant women and postpartum women
[14]/2021/Israel/Cross-sectional/6	Knowing the factors that cause depression in pregnant women in the era of the Covid-19 pandemic	As many as 1,114 pregnant women and 256 non-pregnant women were recruited via social media in May 2020.
[15]/2021/United States of America/Cross-sectional/9	Knowing the factors that cause depression in pregnant women in the era of the Covid-19 pandemic	Of the 6,894 pregnant and postpartum women performed in 64 countries between 26 May 2020 and 13 June 2020.
[16]/2021/China/Cross-sectional/12	Knowing the risk factors for depression in pregnant women in the era of the Covid-19 pandemic	434 mothers in this study. Sample recruitment starts from September to December 2020

RESULTS AND DISCUSSION

Factors causing the level of depression of pregnant women in the era of the Covid-19 pandemic
Based on the identification and mapping that has been done, 7 articles were found that discussed the level of depression in pregnant women in the era of the Covid-19 pandemic, namely articles with numbers 10, 11, 12, 13, 14, 15, and 16. Factors that cause depression in pregnant women in the era of the covid-19 pandemic, namely:

.Social support

Social support given to pregnant women can reduce symptoms of depression. Social support can be obtained from family, neighbours, spouse and colleagues. Depression scores were significantly higher in pregnant women with a high level of partner support compared to pregnant women who had less partner support [13, 15]. This is in line with research[17] [18]Partner support is the most important protective factor and can help reduce depressive symptoms in pregnant women in the era of the Covid-19 pandemic. The need for partner support to reduce depressive symptoms during covid-19. Partner support during pregnancy reduces symptoms of stress to depression and more than 90% of pregnant women report a sense of emotional security after partner support[19].

Spouse education level

Pregnant women who have partners with non-university education are less likely to experience depression than pregnant women who have partners who have a university degree [1]. According to researchDavenport et al., (2020)The level of education affects the depression level of pregnant women in the era of the Covid-19 pandemic because non-university education is lower than undergraduate.

Mother's education

Pregnant women with education from junior high school to university are less likely to experience prenatal depression [12]. This is in line with researchTang et al., (2019)that pregnant women with education from junior high school to university are less likely to experience prenatal depression

Couple job

Depression is more common in pregnant women whose partners have odd jobs than those who have regular jobs [5, 6]. This is in line with researchCuiyan et al., (2020)Partner's work greatly affects the level of depression of pregnant women in the era of the Covid-19 pandemic. Another recent study from the United States revealed that job depression and economic downturn increased significantly during the COVID-19 pandemic and stable income as a protective factor and improved the mental health of pregnant women.[4].

Mother's job

Depression rates are also higher among working pregnant women, who have a higher risk of experiencing psychological distress than non-working pregnant women [12]. This is in line with research Nadholta et al., (2020) Depression in pregnant women is higher in pregnant women who work and have a higher risk of experiencing psychological pressure than pregnant women who do not work. This may be caused by pregnant women having to work in the era of the Covid-19 pandemic [23].

Parity

Depression scores were significantly lower in pregnant women who had their first pregnancy compared to the second and third [1]. This is in line with research Preis et al., (2020) Depression is very common in primiparous women. High rates of pregnancy depression in mothers during first labour. Perhaps the reason for the low depression in primiparous mothers in the era of the Covid-19 pandemic in this study was the high relationship between mothers and the puskesmas, which helped to obtain sufficient and accurate information and reduced maternal depression. [25]

Eat comfort food

Eating comfort foods can reduce symptoms of anxiety and depression. Pregnant women eat comfort food as a coping strategy and this was found to be associated with higher symptoms of depression and anxiety. During times of stress, pregnant women often prefer to eat highly palatable foods often referred to as "comfort foods" to relieve negative emotions such as anxiety or sadness [5]. This is in line with research Cummings et al., (2018) a recent study during covid-19 and the subsequent lockdown in Italy found that 52% of respondents reported they were eating more "comfort food" such as chocolate, ice cream, desserts and salty snacks. Given the concerns about weight gain and obesity in general, and the perinatal population in particular, this warrants further study [27].

Marital satisfaction

Marital satisfaction with depression scores during covid-19 prevalence. Depression scores were lower in women who were satisfied and very satisfied with their lives compared to those who were moderately satisfied [1]. This is in line with research Odinka et al., (2018) showed that as depression severity increased between men and women, their marital satisfaction decreased. Low-risk pregnant women in the postpartum period also found a significant relationship between the severity of depression and anxiety and marital life satisfaction.

Use of social media

Time spent watching COVID-19 related media content, whether through news outlets or social media, can be associated with the severity of mental health symptoms [5]. This is in line with research Jae et al., (2019) Pregnant women who spend more time per day paying attention to

COVID-19 information are more likely to experience symptoms of anxiety. Recent studies have shown that there is a COVID-19 pandemic leaving individuals with so much information that it is unclear whether the information is reliable or useful.

High risk pregnancy

High-risk pregnancy is a well-known risk factor for maternal depression [6]. This is in line with research on pregnant women Okagbue et al., (2019) Pregnant women who have high-risk pregnancies are considered at risk of experiencing depression, especially during the Covid-19 pandemic. Pregnancy complications are well-known risk factors for postpartum and antenatal depression[31]. Mothers who have high-risk pregnancies are at risk of experiencing depression, especially during the Covid-19 pandemic. The increase in depression rates in early pregnancy is inconsistent with studies reporting higher rates of depression towards the end of pregnancy[30].

Sleep pattern

Getting a good night's sleep can also reduce depression or mental health [4]. This is consistent with previous research findings that greater resilience to life challenges is significantly associated with better sleep quality in pregnant women[27]and that sleep disturbances are a key factor in mental disorders[32].

Factors causing depression in pregnant women in the era of the Covid-19 pandemic

Based on the identification and mapping that has been done, 3 articles were found that discussed the level of depression in pregnant women in the era of the Covid-19 pandemic, namely articles with numbers 3, 4, and 9. Factors that cause depression in pregnant women in the era of the Covid-19 pandemic are:

Concerns about and transmission of covid-19 to mothers and babies [4,9]

Clinically elevated depressive symptoms increased by 1% for increased perception of threats to one's own life, endangering the baby and not getting the care needed [4]. A high percentage of respondents (86%) reported being somewhat or very worried about covid-19, with many of the most frequently reported concerns related to pregnancy and childbirth including the baby contracting covid-19 (59%), covid-19 causing changes to birth plans (41%) [9].

Worries about covid-19

Child related worries and missing medical appointments are consistently associated with increased post-traumatic stress, depression and anxiety [9]. This is in line with research Corbett et al., (2020) identified only one other study of pregnant or postpartum women reporting particular concerns. The majority of expectant mothers have concerns about the health of their relatives, children and unborn babies. In addition, it shows that the majority of pregnant women also have

concerns related to their birth plans, with particular concerns about not allowing support people during labor.

Light exercise

Pregnant women who did at least 150 minutes of moderate exercise during the COVID-19 pandemic had significantly lower scores for anxiety or depression than mothers who did not do light exercise [3]. This is in line with research Davenport et al., (2019) suggesting that pregnant or postnatal women who were able to engage in regular physical activity during the COVID-19 pandemic may have improved mental health compared to those who were not and taking into account that certain barriers to physical activity may increase with respect to COVID-19, such as the closure of recreation centers in rooms and parks / green open spaces.

Limited health services

The COVID-19 pandemic has also limited access to public services, including maternal and neonatal health services, such as pregnant women who don't want to go to other health care facilities for fear of infection, recommendations to postpone pregnancy checks and classes for pregnant women, and unpreparedness for services from in terms of manpower and infrastructure including Personal Protective Equipment (PPE)[35]. Care and management of pregnant women is an important service to identify pregnant women at high risk[36]. Providing access to prenatal health services by limiting the exposure of health workers and patients to COVID-19 is a challenge[37]. During the COVID-19 pandemic, pregnant women must continue to provide antenatal care and reduce and prevent mental health problems.

CONCLUSION

The causative factors that affect the depression level of pregnant women in the era of the co-19 pandemic are social support, education level of partner, mother's education, partner's occupation, mother's occupation, parity, eating comfort food, marital satisfaction, use of social media, high-risk pregnancies and patterns of sleep. Factors causing depression in pregnant women in the era of the Covid-19 pandemic were fears of transmission of Covid-19 to the mother and fetus, concerns about Covid-19, light exercise and limited health services.

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