

How COVID-19 affects peripartum women's mental health



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Addressing the factors that increase risk can help reduce anxiety, depression, and stress

The COVID-19 pandemic has had a negative impact on the mental health of people worldwide, and a disproportionate effect on peripartum women. In this article, we discuss the reasons for this disparity, review the limited literature on this topic, and suggest strategies to safeguard the mental health of peripartum women during the COVID-19 pandemic.

Catastrophic events and women's mental health

During the peripartum period, women have increased psychosocial and physical health needs.¹ In addition, women are disproportionately affected by natural disasters and catastrophic events,² which are predictors of psychiatric symptoms during the peripartum period.³ Mass tragedies previously associated with maternal stress include wildfires, hurricanes, migrations, earthquakes, and tsunamis.^{4,5} For example, pregnant women who survived severe exposure during Hurricane Katrina (ie, feeling that one's life was in danger, experiencing illness or injury to self or a family member, walking through floodwaters) in 2005 had a significantly increased risk of developing posttraumatic stress disorder (PTSD) and depression compared with pregnant women who did not have such exposure.⁶ After the 2011 Tohoku earthquake and tsunami in Japan, the prevalence of

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psychological distress in pregnant women increased, especially among those living in the area directly affected by the tsunami.⁵

Epidemics and pandemics also can adversely affect peripartum women's mental health. Studies conducted before the COVID-19 pandemic found that previous infectious disease outbreaks such as severe acute respiratory syndrome (SARS), the 2009 influenza A (H1N1) pandemic, and Zika had negative emotional impacts on pregnant women.⁷ Our review of the limited literature published to date suggests that COVID-19 is having similar adverse effects.

COVID-19 poses both medical and psychiatric threats

COVID-19 infection is a physical threat to pregnant women who are already vulnerable due to the hormonal and immunological changes inherent to pregnancy. A meta-analysis of 39 studies with a total of 1,316 pregnant women indicated that the most frequently reported symptoms of COVID-19 infection were cough, fever, and myalgias.⁸ However, COVID-19 infection during pregnancy is also associated with an increase in pregnancy complications and adverse birth outcomes.⁹ According to the CDC, compared with their nonpregnant counterparts, pregnant women are at greater risk for severe COVID-19 infection and adverse birth outcomes such as preterm birth.¹⁰ Pregnant women who are infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; the virus responsible for COVID-19) risk ICU admission, caesarean section, and perinatal death.⁸ A Swedish study of 2,682 pregnant women found an increase in pre-eclampsia among women who tested positive for SARS-CoV-2, a finding attributed to COVID-19's pattern of systemic effects.¹¹ Vertical transmission of the novel coronavirus from mother to fetus appears to be rare but possible.¹²

In addition to the physical dangers of becoming infected with COVID-19, the perceived threat of infection is an added source of anxiety for some peripartum women. In addition to the concerns involved in any pregnancy, COVID-19-related sources of distress for pregnant women include

worrying about harm to the fetus during pregnancy, the possibility of vertical transmission, and exposures during antenatal appointments, during employment, or from a partner.^{8,13}

The death toll from factors associated with COVID-19 adds to the mental health burden. For every person who dies of COVID-19, an estimated 9 others may develop prolonged grief or PTSD due to the loss of someone they loved.^{14,15} A systematic review found that PTSD in the perinatal period is associated with negative birth and child outcomes, including low birth weight and decreased rates of breastfeeding.¹⁶ The COVID-19 pandemic has disrupted human interactions, from social distancing rules and lockdowns of businesses and social activities to panic buying of grocery staples and increased economic insecurity.¹ These changes have been accompanied by a rise in mental health challenges. For example, according to an August 2020 CDC survey, 40.9% of US adults reported at least 1 adverse mental or behavioral health condition, including symptoms of anxiety or depression (30.9%), symptoms of a trauma- and stressor-related disorder related to the pandemic (26.3%), and having started or increased substance use to cope with stress or emotions related to COVID-19 (13.3%).¹⁷

COVID-19-related traumas and stressors appear to affect women more than men. A study from China found that compared with men, women had significantly higher levels of self-reported pandemic-related anxiety, depression, and posttraumatic stress symptoms (PTSS).¹⁸ This trend has been observed in other parts of the world. A study conducted by the UK Office of National Statistics reported anxiety levels were 24% higher in women vs men as reflected by scores on a self-rated anxiety scale.¹⁹

Many factors influence the disproportionate impact of COVID-19 on women in general, and peripartum women in particular (*Box*,²⁰⁻²⁶ *page 20*).

Psychiatric diagnoses in peripartum women

Multiple studies and meta-analyses have begun to assess the impact of the COVID-19

Clinical Point

COVID-19 infection during pregnancy is associated with increased pregnancy complications and adverse birth outcomes



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COVID-19 and peripartum women

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COVID-19 significantly increases the risk of anxiety and depression in women during the peripartum period

Box

How COVID-19 disproportionately affects women

Factors that predispose women to increased stress during COVID-19 include an increase in child care burdens brought about by school closures and subsequent virtual schooling.²⁰ Intimate partner violence has spiked globally during COVID-19 restrictions.²⁴ Women also represent the majority of the health care workforce (76%) and often take on informal caregiving roles; both of these roles have seen increased burdens during the pandemic.²⁵ Already encumbered by pre-pandemic gender pay inequalities, women are filing unemployment claims at a significantly increased rate compared to men.²⁶

For women of childbearing age, the disruption of routine clinical care during

COVID-19 has decreased access to reproductive health care, resulting in increases in unintended pregnancies, unsafe abortions, and deaths.²⁰ Another source of stress for pregnant women during COVID-19 is feeling unprepared for birth because of the pandemic, a phenomenon described as “preparedness stress.”²¹ Visitor restriction policies and quarantines have also caused women in labor to experience birth without their support partners, which is associated with increased posttraumatic stress symptoms.²² These restrictions also may be associated with an increase in women choosing out-of-hospital births despite the increased risk of adverse outcomes.²³

pandemic on maternal mental health. One meta-analysis of 8 studies conducted in 5 countries determined that COVID-19 significantly increases the risk of anxiety in women during the peripartum period.²⁷ Results of another meta-analysis of 23 studies with >24,000 participants indicated that the prevalence of anxiety, depression, and insomnia in peripartum women was significantly higher during the pandemic than in pre-pandemic times.²⁸

In an online survey of 4,451 pregnant women in the United States, nearly one-third of respondents reported elevated levels of pandemic-related stress as measured by the newly-developed Pandemic-Related Pregnancy Stress Scale.³ The rates were even higher among women who were already at risk for elevated stress levels, such as those who had survived abuse, those giving birth for the first time, or those experiencing high-risk pregnancies.³ Living in a pandemic “hot spot” also appeared to impact peripartum stress levels.

COVID-19 has adverse effects on women’s mental health specifically during the postpartum period. One study from a center in Italy found a high prevalence of depressive symptoms and PTSS in the postpartum period, with COVID-19–related factors playing an “indirect role” compared with prenatal experiences and other individual factors.² A British study of mothers of infants age ≤12 months found that traveling for work, the impact of lockdown on

food affordability, and having an income of less than £30,000 per year (approximately \$41,000) predicted poorer mental health during the pandemic.²⁹ Results of a study from China indicated that more than one-quarter of pregnant and postpartum women experienced depression during the pandemic, and women who worried about infection risk or missing pediatric visits were at increased risk.³⁰

How to mitigate these risks

The increase in pandemic-related mental health concerns in the general population and specifically in peripartum women is a global health care challenge. Investing in mitigation strategies is necessary not only to address the current pandemic, but also to help prepare for the possibility of future traumatic events, such as another global pandemic.

For pregnant women, ensuring access to outdoor space, increasing participation in healthy activities, and minimizing disruptions to prenatal care can protect against pandemic-related stress.³ Physical activity is an effective treatment for mild to moderate depressive symptoms. Because of the significant decrease in exercise among pregnant women during the pandemic, encouraging safe forms of physical activity such as online fitness classes could improve mental health outcomes for these patients.²⁷ When counseling peripartum

women, psychiatrists need to be creative in recommending fitness interventions to target mood symptoms, such as by suggesting virtual or at-home programs.

In an online survey, 118 obstetricians called for increased mental health resources for peripartum women, such as easier access to a helpline, educational videos, and mental health professionals.¹³ Increased screening for psychiatric disorders throughout the peripartum period can help identify women at greater risk, and advancements in telepsychiatry could help meet the increased need for psychiatric care during COVID-19. Psychiatrists and other mental health clinicians should consider reaching out to their colleagues who specialize in women's health to establish new partnerships and create teams of multidisciplinary professionals.

Similarly, psychiatrists should familiarize themselves with telehealth services available to peripartum patients who could benefit from such services. Telehealth options can increase women's access to peripartum care for both medical and psychiatric illnesses. Online options such as women's support groups, parenting classes, and labor coaching seminars also represent valuable virtual tools to strengthen women's social supports.

Women who need inpatient treatment for severe peripartum depression or anxiety might be particularly reluctant to receive this care during COVID-19 due to fears of becoming infected and of being separated from their infant and family while hospitalized. Clinicians should remain vigilant in screening peripartum women for mood disorders that might represent a danger to mothers and infants, and not allow concerns about COVID-19 to interfere with recommendations for psychiatric hospitalizations,

Related Resources

- Hu YJ, Wake M, Saffery R. Clarifying the sweeping consequences of COVID-19 in pregnant women, newborns, and children with existing cohorts. *JAMA Pediatr.* 2021; 75(2):117-118. doi: 10.1001/jamapediatrics.2020.2395
 - Tomfohr-Madsen LM, Racine N, Giesbrecht GF, et al. Depression and anxiety in pregnancy during COVID-19: a rapid review and meta-analysis. *Psychiatry Res.* 2021; 300:113912. doi: 10.1016/j.psychres.2021.113912
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when necessary. The creation of small, women-only inpatient behavioral units can help address this situation, especially given the possibility of frequent visits with infants and other peripartum support. Investment into such units is critical for supporting peripartum mental health, even in nonpandemic times.

What about vaccination? As of mid-May 2021, no large clinical trials of any COVID-19 vaccine that included pregnant women had been completed. However, 2 small preliminary studies suggested that the mRNA vaccines are safe and effective during pregnancy.^{31,32} When counseling peripartum patients on the risks and benefits, clinicians need to rely on this evidence, animal trials, and limited data from inadvertent exposures during pregnancy. While every woman will weigh the risks and benefits for her own circumstances, the CDC, the American College of Obstetricians and Gynecologists, and the Society for Maternal-Fetal Medicine have all stated that the mRNA vaccines should be offered to pregnant and breastfeeding individuals who are eligible for vaccination.³³ Rasmussen et al³³ have published a useful resource for clinicians regarding COVID-19 vaccination and pregnant women.

continued

Bottom Line

During the COVID-19 pandemic, peripartum women have experienced increased rates of anxiety, depression, and stress. Psychiatric clinicians can help these patients by remaining vigilant in screening for psychiatric disorders, encouraging them to engage in activities to mitigate COVID-19's adverse psychological effects, and referring them to care via telehealth and other resources as appropriate.

Clinical Point

Telehealth options can increase women's access to peripartum care for both medical and psychiatric illnesses



COVID-19 and peripartum women

Clinical Point

The CDC and several professional organizations state that mRNA vaccines should be offered to eligible pregnant or breastfeeding women

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