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Abstract

The COVID-19 pandemic led to several states mandating social distancing and sheltering in place along with a shift in health care delivery, unprecedented unemployment rates, financial stress, and emotional concerns. For pregnant and postpartum women, limited social support and social isolation with social distancing and fear of COVID-19 exposure or infection for themselves, their fetus, or their newborn infants, have implications for maternal mental health. An overview of the potential impact of COVID-19 on mental health risk for pregnant and postpartum women is presented with implications for nursing practice to promote maternal–infant wellbeing.

Key words: Anxiety; Birth; COVID-19; Depressive symptoms; Postpartum; Postpartum depression; Pregnancy.

IMPACT OF COVID-19 ON MATERNAL MENTAL HEALTH

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The first cases of acute respiratory disease attributed to the novel SARS-CoV were noted in Wuhan, China, December 2019 (Yuki et al., 2020). The World Health Organization (WHO) declared COVID-19 a pandemic on March 11, 2020, leading to social distancing and shelter in place (SIP) mandates (WHO, 2020). In March and April 2020, 42 of 50 states in the United States initiated SIP stay at home orders (Kaiser Family Foundation, KFF, 2020a). As of December 9, 2020, six states (Arkansas, Iowa, Nebraska, North Dakota, South Dakota, Wyoming) remain without SIP mandates in place (Kaiser Family Foundation, KFF, 2020b). The Centers for Disease Control and Prevention (CDC) advised everyone, including pregnant and postpartum women, to stay home or at least six feet away from people living outside the home to decrease risk of contracting COVID-19 (CDC, 2020a). Sheltering in place and social distancing limit physical and perceived social support for women during pregnancy and postpartum which may place them at an increased risk of developing anxiety and mood disorders (Lebel et al., 2020).

Along with fear of COVID-19 exposure, recent unprecedented economic downturn, and high unemployment rates have increased financial and housing concerns (Nicola et al., 2020). Financial insecurity, caregiving burden, confinement-related stress, and change in routine associated with COVID-19, all have a potential effect on wellbeing of children and families (Prime et al., 2020).

Pregnant women are more vulnerable to pulmonary infections due to physical changes in the respiratory system and maternal immune suppression that occurs to support fetal wellbeing (Allotey et al., 2020; Ellington et al., 2020). Although there are mixed findings on their susceptibility to the virus (Rajewska et al., 2020), pregnant women are generally considered a high-risk group, which adds to apprehension and concern of developing COVID-19 (Allotey, et al.; Ellington et al.; Taubman-Ben-Ari et al., 2020). During pregnancy, risk factors for severe COVID-19 include increasing maternal age, high body mass index, and preexisting comorbidities (Allotey et al.). Pregnant women with COVID-19 are at greater risk for preterm birth and admission of their baby to the neonatal intensive care unit (Allotey et al.). Because information about coronavirus disease is limited and constantly changing, many people may be fearful (Allotey et al.; Fitzpatrick et al., 2020). There is limited evidence on in utero transmission of COVID-19 (Rasmussen et al., 2020). Pregnant and postpartum women are often fearful for their health and the health of their unborn fetus which along with the fear and stressors of COVID-19 may further increase susceptibility to perinatal anxiety and mood disorders (PAMD; Durankuş & Aksu, 2020; Lebel et al., 2020).

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The COVID-19 pandemic can have negative implications for maternal mental health.

COVID-19 and Change in Health Care Delivery

Shelter in place mandates to reduce risk of exposure and developing COVID-19 created a forced and sudden shift from face-to-face in-person visits to telehealth for many pregnant and postpartum women. Patient-facing telehealth is described as synchronous, asynchronous, or remote (American College of Obstetricians & Gynecologists [ACOG], 2020). In synchronous telehealth, patients and providers meet for a scheduled appointment by phone or video conferencing platforms. Asynchronous health care delivery is communicated by email or short message service (SMS) messaging. Remote health care platforms monitor patient outcomes using wearable or handheld devices that record patient health data, for example fetal monitoring, that is uploaded for provider viewing at a later time. Although research suggests high patient satisfaction with telehealth in general (Polinski et al., 2016), advantages and disadvantages exist for pregnant and postpartum health care. A recent review of 47 studies revealed synchronous telehealth improved obstetric and gynecological outcomes, but maternal depression outcomes were not included (DeNicola et al., 2020).

Telehealth during the current COVID-19 pandemic is essential to limit COVID-19 exposure (Bokolo, 2020; Madden et al., 2020). Limiting COVID-19 exposure for pregnant and postpartum women while ensuring continued health care access is important for all patients, especially for those with increased childcare responsibilities and juggling homeschooling and working from home (Aziz et al., 2020; Madden et al.). Telehealth during the COVID-19 pandemic may not be an ideal health care delivery platform for all women. A recent study cited difficulty in setting up software, accessing continuous Wi-Fi or data for the visit, hesitation or anxiety in using telehealth, and the need for home monitoring devices such as fetal heart Dopplers and blood pressure cuffs as barriers to telehealth for pregnant (Madden et al.). Barriers identified with phone appointments include the inability of health care provider and patients alike to see body language and facial expressions, which are an essential and integral part of the visit (ACOG, 2020). Phone visits do not allow health care providers to see subtle cues of inadequate self-care such as body odor, poor grooming, or clothing disorganization (ACOG, 2020).

COVID-19 and Risks for Maternal Anxiety and Depression

Shelter in place mandates due to COVID-19 have resulted in unprecedented unemployment rates (Pew Research Center, 2020a), leading to financial and emotional strain, both of which are associated with increased risk of developing PAMD (Banker & LaCoursiere, 2014; Salm Ward et al., 2017; Stone et al., 2015). Stressful life events including relationship, emotional, and financial stress are all associated with risk for developing postpartum depression symptoms (Qobadi et al., 2016). Unemployment and financial loss have affected women and immigrants the most (Pew Research Center, 2020b), which is concerning, as these groups are at increased risk of developing PAMD (Wisner et al., 2013). Poor social support and social isolation are well-documented risks for developing PAMD in general times without the threat of a pandemic (Milgrom et al., 2019; Vaezi et al., 2019). Shelter in place mandates have significantly reduced opportunities for in-person social interaction with health care providers, family, and friends with several studies noting increased anxiety and depressive symptoms due to social isolation and poor social support among pregnant and postpartum women during the pandemic (Berthelot et al., 2020; Farewell et al., 2020; Jago et al., 2020; Lebel et al., 2020; Zanardo et al., 2020).

Pregnancy is generally a time of joy for women with many traditional rites of passage and social bonding opportunities enjoyed with family and friends including baby showers, baby sprinkles, gender reveal parties, prenatal classes, and hospital tours. Birth and hospital stays include social bonding opportunities which have been severely restricted in an effort to protect patients and the health care team. Many hospitals have restricted the number of support persons during labor, birth, and postpartum with the CDC (2020b) recommending only allowing visitors who are essential to the woman's well-being and care (CDC, 2020b).

The postpartum period is a time where family and friends visit the newborn's home and provide support to the family, especially the new mother. Women have identified four types of support desired after childbirth: need of information, need of psychological support, need to share experience, and need of practical and material support (Slomian et al., 2019). Supporting the new family during the postpartum period often includes providing meals and, in some cultures, extended help at home is a common practice to allow the postpartum woman time to recover and rest for 30 days (Goyal, 2016; Ta Park et al., 2017).

Worldwide and nationwide travel restrictions due to COVID-19 have largely prevented family members from traveling to provide much needed postpartum social support leaving many women feeling isolated and alone, potentially contributing to risk of developing PAMD (Kim et al., 2014). Shelter in place guidelines are in place to reduce the spread of COVID-19, which is critical for the new postpartum woman and newborn. However, isolation and decreased social support increase the risk of developing PAMD, specifically, postpartum depression (PPD; Kim et al.; Slomian et al., 2019).

Months of isolation during pregnancy and with a newborn without the planned help from family and friends can be stressful.

Implications for Clinical Practice

Risk of COVID-19 exposure continues nationwide, with many states reporting new cases several months after the initiation of SIP (CDC, 2020c). Given relationship and financial stressors associated with COVID-19 place women at increased risk of PPD (Banker & LaCoursiere, 2014; Salm Ward et al., 2017; Stone et al., 2015), it is important for nurses working with childbearing women to identify any stressors during prenatal care and provide resources to manage and/or reduce their impact.

Limited research findings suggest it is possible pregnant women may transmit the virus to their fetus (Ellington et al., 2020). The added risk of COVID-19 exposure requires further social isolation for pregnant women which may increase depressive symptoms and increase the need for telehealth for all except the most necessary in-person visits. With telehealth here to stay and even expand, there are several implications for clinical practice.

Nurses working with childbearing women should follow CDC (2020a, 2020b, 2020d, 2020e) guidelines when educating women during pregnancy and postpartum on best practices to reduce the risk of COVID-19 exposure and infection (Table 1). Nurses should be aware of immediate and long-term emotional loss, economic hardship, increased grief, fear, and unresolved grief associated with women living through disasters such as COVID-19 (Giarratano et al., 2019) and not underestimate importance of

TABLE 1. CENTERS FOR DISEASE CONTROL AND PREVENTION GUIDELINES FOR PREGNANT, POSTPARTUM, LACTATING WOMEN, AND NEONATES FOR PREVENTION OF COVID-19 INFECTION

Time Period	Recommendations
During Pregnancy	Pregnant individuals are considered to be at greater risk for severe illness form COVID-19. Limit close interactions with others as much as possible. Wear a mask when outside one's home and avoid others who are not wearing a mask. Practice social distancing of 6 feet from others. Wash hands for 20 seconds frequently or use hand sanitizer made with 60% isopropyl alcohol. Do not skip health care appointments. Avoid activities where social distancing and mask wearing are not possible. Get the seasonal influenza vaccine and encourage others in their household to also get immunized. Encourage the Tdap (pertussis) vaccine as symptoms may mimic those for COVID-19.
Prehospital Admission	Anyone with symptoms of or exposed to COVID-19 should notify nurses prior to arrival on the labor and delivery unit to ensure adequate isolation and PPE during labor and birth, precautions to protect nurses, midwives, physicians, allied health workers, and other patients. Patients arriving by ambulance, emergency medical staff should alert hospital of the patient's exposure or infection status.
During Hospitalization	Patients exposed to or with COVID-19 symptoms should have priority for testing. Hospitals providing maternity services must provide adequate infection control training and PPE for all health care workers. Hospitals can limit support people to only one to mitigate transmission. Video or telephone call contact with other support persons should be used for additional support. Visitors (support persons) must be provided with and trained in the proper use of PPE, are not allowed if they have symptoms of COVID-19, and are not allowed to visit other patient care areas within the hospital.
Maternal Hospital Discharge	Women with conformed COVID-19 infection or symptoms may be discharged as soon as obstetrically stable with isolation to be continued at home. Nurses should share postpartum depression resources due to increased stressors with isolation and social distancing.
Newborns	Newborns with known or suspected maternal COVID-19 infection or exposure should be tested, though timing of optimal testing is unknown. Assure patients that infections causing COVID-19 in newborns born to mothers with COVID-19 are uncommon. Isolation of neonates with known or suspected COVID-19 infection in the NICU is not recommended unless medically indicated for maternal or neonatal factors or no other alternative is available. Rooming in while using hand hygiene and the use of maternal face masks will mitigate infection transmission and facilitate bonding and breastfeeding for mothers with COVID-19 whose conditions are stable. Women with COVID-19 symptoms or who are not medically stable may need to be isolated from their neonate until symptoms improve.
Newborn Hospital Discharge	Testing prior to discharge is not required and should be based on general newborn discharge criteria. Home isolation can be discontinued following general recommendations.
Postpartum Period	Maintain all the precautions as outlined during pregnancy. Instruct women not to place a face shield on infants due to the risk of sudden infant death syndrome or accidental suffocation and strangulation. Encourage women to keep their routine medical appointments for themselves and their newborns.
Lactating Women	It is unknown if breastmilk can transmit COVID-19 but evidence suggests it is unlikely. Women with COVID-19 must practice effective handwashing with soap and water and wear a face mask when in contact with the infant for breastfeeding or other care. Equipment used to express breastmilk must be properly sanitized between uses. Expressed breastmilk can be given to the infant by another healthy low-risk individual until maternal isolation is discontinued based upon recommendations. Infants who are breastfed by a mother with COVID-19 should be considered as infected and health care providers informed of maternal infection. Lactation consultants should use adequate PPE and consider telehealth services is applicable.
Working Women	Lactating mothers may pump and store breastmilk while working. Health care workers are at a greater risk for infection of COVID-19 and should follow recommendations for facility disinfection and infection mitigation closely.

Note. Adapted from CDC (2020a), (2020b), (2020d).

The Centers for Disease Control and Prevention have published a number of important recommendations for safely avoiding infection with COVID-19 during pregnancy, postpartum, and breastfeeding.

emotional support during pregnancy and childbirth (Jago et al., 2020). Encouraging women to limit engagement in disturbing social media and television programs, opt out of social media or other groups where there are too many distressing messages, and suggesting their friends and family to not send negative messages may all help decrease the fear, uncertainty, and worry associated with COVID-19.

Nurses should provide a list of vetted local and virtual resources for women to obtain psychological support, share experiences, and obtain practical and material support (Slomian et al., 2019). Creating a COVID-19 taskforce to develop a nonurgent care stratification approach including integration of additional PAMD screening, identifying and prioritizing in-person visits for women without telehealth access, or for women with conditions warranting closer monitoring will provide much needed changes in service. Pregnant women living in postdisaster communities have stressful lives years after the event, needing innovative models of care to build resilience.

IMPLICATIONS FOR CLINICAL NURSING PRACTICE

- Nurses should recognize the potential link between the COVID-19 pandemic and mental health risk and how to identify women at risk.
- Nurses caring for childbearing women must assess for stressful life events during prenatal care and provide resources to manage and reduce their impact.
- Nurses at hospitals, birthing centers, and outpatient clinics should consider holding "telehealth office hours," where women can drop in to ask questions without scheduling a formal appointment.
- Nurses caring for pregnant women during times of crisis should be attentive to the increased stress.
- Nurses should be aware of and use most up-to-date CDC guidelines to educate women about best practices to avoid COVID-19 exposure and infection.
- Synchronous group prenatal telehealth care visits may help create a sense of community for women during these unprecedented times.

Providers in outpatient clinics should consider addition of synchronous group prenatal telehealth care visits that can help create a sense of community (ACOG, 2018). Other prenatal classes such as prenatal yoga, parenting, and birth classes should be offered synchronously online to create online communities and foster connections with other women going through similar experiences while maintaining SIP and social distancing mandates. With more medical appointments and education classes moving online, it is also important to follow best practices to minimize digital platform fatigue and eye strain (Helander et al., 2020). Nurses at hospitals, birthing centers, and outpatient clinics should consider scheduling open "telehealth office hours," where women can call in or join virtually to ask questions without scheduling a formal appointment. Nurses can acknowledge loss of in-person contact and encourage interaction with family and friends through phone and video calls to limit isolation.

Increased risk of PAMD due to COVID-19 calls for nationwide policies to be developed to address prenatal and postpartum care needs and economic support resources in an effort to promote maternal–child wellbeing outcomes. Providing financial support for childbearing families strengthens these families and provides resources for housing, food, and medical care ultimately improving health and wellbeing outcomes. ✣

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Impact of COVID-19 on Maternal Mental Health

TEST INSTRUCTIONS

- Read the article. The test for this nursing continuing professional development (NCPD) activity is to be taken online at **www.nursingcenter.com/CE/MCN**. Tests can no longer be mailed or faxed.
- You'll need to create an account (it's free!) and log in to access My Planner before taking online tests. Your planner will keep track of all your Lippincott Professional Development online NCPD activities for you.
- There's only one correct answer for each question. A passing score for this test is 7 correct answers. If you pass, you can print your certificate of earned contact hours and access the answer key. If you fail, you have the option of taking the test again at no additional cost.
- For questions, contact Lippincott Professional Development: 1-800-787-8985.
- Registration deadline is March 3, 2023.

PROVIDER ACCREDITATION

Lippincott Professional Development will award 2.0 contact hours for this nursing continuing professional development activity.

Lippincott Professional Development is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749 for 2.0 contact hours. Lippincott Professional Development is also an approved provider of continuing nursing education by the District of Columbia, Georgia, and Florida, CE Broker #50-1223. Your certificate is valid in all states.

Payment: The registration fee for this test is $21.95.