

Coronavirus Disease 2019 (COVID-19) and Pregnancy

Combating Isolation to Improve Outcomes

Caitlin Anne Jago, MD, FRCSC, Sukhbir Sony Singh, MD, FRCSC, and Felipe Moretti, MD

With the current global coronavirus disease 2019 (COVID-19) pandemic, new challenges arise as social distancing and isolation have become the standard for safety. Evidence supports the protective benefits of social connections and support during pregnancy and labor; there are increased maternal, fetal, and pregnancy risks when pregnant and laboring women lack support. As health care professionals take appropriate precautions to protect patients and themselves from infection, there must be a balance to ensure that we do not neglect the importance of social and emotional support during important milestones such as pregnancy and childbirth. Resources are available to help pregnant women, and technology represents an opportunity for innovation in providing care.

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Giving birth is a unique and emotional experience, and expectant parents eagerly wait through an entire pregnancy to meet their newborn. Although this

From the Department of Obstetrics, Gynecology and Newborn Care, the Ottawa Hospital, the Department of Obstetrics, Gynecology and Newborn Care, University of Ottawa and Ottawa Hospital Research Institute, and the Division of Maternal-Fetal Medicine, Department of Obstetrics, Gynecology and Newborn Care, University of Ottawa, the Ottawa Hospital, Ottawa, Ontario, Canada.

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Corresponding author: Caitlin Anne Jago, MD, FRCSC, Department of Obstetrics, Gynecology and Newborn Care, the Ottawa Hospital, Ottawa, ON, Canada; email: cjago@toh.ca.

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process can have unexpected challenges, there is a sense of community and support that welcomes a new child into the world. With the current global coronavirus disease 2019 (COVID-19) pandemic, new challenges arise as social distancing and isolation have become the standard for safety.

Many labor and delivery units across North America have instituted a modified “no visitor” policy, with a single support person present for the duration of labor, delivery, and the postpartum period with no alternates or switching. This policy varies between institutions; some locations will allow trained labor support professionals such as doulas in addition to a support person,¹ and some have banned visitors entirely.² The rationale for this policy is clear: minimize exposure for the vulnerable mother and newborn, and for all other patients and health care professionals. Although this type of guidance is essential during the pandemic, there may be unintended consequences.

There is a significant body of evidence examining the effect of support during labor on maternal mental health and pregnancy outcomes. This evidence shows that support in labor reduces pain and need for analgesia,^{3–5} shortens the duration of labor,^{3,4} reduces operative vaginal delivery and cesarean delivery,^{3,4} and increases satisfaction with the labor experience^{3–5}; this is highlighted in two recent Cochrane Reviews by Bohren et al in 2017⁴ and 2019.⁵

There are other uncertainties beyond lack of labor support that can increase maternal stress. Access to nitrous oxide may be restricted owing to concerns about aerosolization,^{6,7} and there are additional safety measures for induction of anesthesia.^{6,7} Additional time is also needed for the surgical team to don appropriate personal protective equipment before incision.^{6,7} As such, early epidurals are being encouraged to avoid the need for general anesthetic and facilitate possible emergency cesarean delivery. Although there are no overt risks to early epidural,⁸ loss of choice or feeling



pressured can increase maternal stress, which is only exacerbated by lack of labor support.

Pregnancy in the time of a pandemic increases maternal stress, as evidenced by multiple recent media publications.^{2,9,10} Isolation and increased stress in pregnancy can also lead to adverse pregnancy outcomes, such as preterm birth and low birth weight^{11,12}; social support during pregnancy has been shown to result in less childhood adiposity at 18 months of age¹³ and to be protective against postpartum depression.¹⁴

With increased concern about infection risk in hospitals, many women are considering delivery at home. Home birth can be safe in appropriately selected patients with skilled, licensed birth attendants and timely access to a hospital. However, it requires careful consideration and discussion of risks, because some patients are not low-risk and benefit from hospital delivery.¹⁵ Support from health care professionals can help patients make an informed decision and not make a decision based on fear of being exposed to infection.

To reduce potential transmission, mothers with confirmed or suspected COVID-19 infection and their newborns are being separated postpartum.¹⁶ This is a critical time in maternal–newborn bonding with profound effects on maternal and fetal well-being. Skin-to-skin contact after delivery can improve the newborn’s physiologic stability and thermoregulation and promotes breastfeeding.¹⁷ Evidence from critical care and neonatal intensive care unit literature shows that maternal–newborn separation is associated with increased emotional distress, disruption of maternal–newborn bonding, and maternal mental health concerns such as anxiety and postpartum depression.^{18–20} During pregnancy and postpartum, women socially distancing at home may experience feelings of isolation, which is linked to postpartum depression.^{11,21} Postpartum depression has well-established consequences for infant development, including delayed cognitive development, behavioral issues, and risk of developing depression or anxiety.^{22–24} Maternal outcomes are equally sobering—postpartum depression is linked to increased substance use, decreased physical health, and worse mental health²⁴; suicide is one of the leading causes of maternal death in the perinatal period.^{25,26} It is also important to remember that social isolation further increases the risk of intimate partner violence, which can increase in severity during pregnancy²⁷ and worsens perinatal depression.

As the initial crisis passes, it is important to focus on creating remote and socially distant support

Box 1. Examples of Technology to Increase Peripartum Maternal Support

- Encourage video conferencing during labor
- Make technology available for pregnant patients in the hospital (admitted for observation and those in labor or postpartum)
- Encourage software applications that help with stress reduction (mindfulness)
- Provide local or national supportive applications (mother chat groups, access to health care professionals, applications with up-to-date and correct medical information)
- Hospital-specific websites with virtual tours of labor and delivery units and “what to expect” content to alleviate stress while reducing hospital visits
- Telemedicine and online support to improve access for patients with limited access to counseling services
- Online resources through public health and mental health agencies

networks to provide additional resources for pregnant patients and reduce the isolation they may feel. Online support groups have been shown to be beneficial by increasing maternal feelings of calm and reducing isolation.²⁸ Technology will be an asset, because extra support companions can be remotely present during labor to provide comfort to the laboring woman and her partner and share the emotional moments after a birth as a family welcomes its newest member (Box 1).

As prenatal visits are reduced, patients may perceive that access to support will be limited. As health care professionals, we can ensure patients feel supported by continuing their routine prenatal care through telemedicine visits. Clinicians should ensure they do not neglect perinatal mental health and intimate partner violence screening, as recommended by the American College of Obstetricians and Gynecologists and other bodies.^{25,29,30} Health care professionals can also encourage patients to use virtual platforms to be able to connect by video with their support network. Providing links to resources through hospital or organization websites ensures patients can access factual information about COVID-19 infection in pregnancy.

Implementing additional support services should be considered, including perinatal education with a focus on how to stay connected to a community while safely practicing social distancing. Use of online resources through hospitals or national organizations can be encouraged by clinicians during prenatal and postpartum visits. Obstetric health care professionals could look to collaboration with perinatal mental health teams to provide additional support through



Box 2. Specific Online Resources for Managing Perinatal Mental Health

- Centers for Disease Control and Prevention mental health and reproductive health resources³²
- National Institute of Mental Health's perinatal depression handbook,³³ a free download for patients and health care professionals
- Mentalhealth.gov,³⁴ with links to free mental health and counseling programs across the United States
- eMentalHealth.ca,³⁵ with links to free mental health and counseling programs across Canada

online consultation or telemedicine (Box 2). Virtual appointments provide an opportunity to expand mental health resources beyond patients' immediate community and improve access for all women. Increasing ease of access and awareness for community resources such as crisis lines or women's shelters can help promote maternal safety, and resources such as childcare can support the family unit.

As health professionals who care for women, we need to remember that this is a vulnerable time and seek to support our patients as best we can. Whether we reach out by telemedicine or spend a little extra time at the bedside, each moment of interaction can make these difficult times somewhat easier. Often, those moments are far more appreciated than we realize³¹ and can also help to remind us of the good in the world during this time of global crisis.

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