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## Maternal Health Challenges during COVID-19 and Way Forward

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### Abstract

The COVID-19 pandemic has affected nearly every country around the globe. Although every individual is at risk of getting the virus, maternal, fetal and newborn clients face specific and potentially unknown challenges which can make them highly compromised. The purpose of this paper is to discuss the maternal health challenges faced by women during COVID-19 and to propose possible strategies using the socio-ecological model (SEM) to promote the physical, social, and mental well-being of women and their infants during the perinatal period. SEM can be used as a framework to plan and implement strategies focusing on health promotion and disease prevention. It guides stakeholders to design actions at each level, starting from individual to the policy level.

**Keywords:** *Maternal health, COVID-19, perinatal period, mental health*

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### Overview

Women face issues related to their health and well-being throughout the perinatal period. Due to restrictions related to COVID-19 they can encounter additional physical and psychological discomforts, leading to an unsatisfying childbirth experience and an uneven transition to motherhood as a result of being in isolation. Moreover, prolonged lockdown can affect family interactions and escalate likelihood of intimate partner violence (IPV). Since there are indications that the current pandemic might be prolonged, strategies are required to manage the challenges efficiently, especially based on the socio-ecological model (SEM).<sup>1</sup>

Childbirth is connected with both physiological and emotional health. Several factors influence labour and the childbirth experience including patient-centred care, presence of a

supportive companion, access to competent health care providers, and a safe childbirth environment. A satisfying birthing experience promotes a smooth transition towards safe motherhood enabling development of a sense of maternal identity and accomplishment; whereas, a negative experience can have an adverse effect on mothers' initial bonding with the infant, as well as mental well-being.<sup>2</sup> Women need strong support to have a satisfying birthing experience and to cope positively with changes; however, available support systems and the delivery of care are being adversely pressured and impacted by the COVID-19 pandemic.<sup>3</sup>

The pandemic has created uncertainty, stress, and anxiety for women, globally. Even in times of 'normalcy', anxiety is linked with obstetrical complications, including pre-eclampsia, depression, and pre-term labour.<sup>4</sup> Past research has shown that pregnant women's needs have been compromised during past emergencies, including during Severe Acute Respiratory Syndrome (SARS) and natural disasters.<sup>4,5</sup> Compromised needs during pregnancy lead women to be more prone to infection due to their altered physiological and immunological function.<sup>6</sup> Moreover, such a crisis can have a negative impact on women's well-being.<sup>5,7</sup> A strong support group consisting of competent and supportive health care providers, including midwives, nurses, doctors and family members, is needed to support mothers to cope with the stresses and challenges experienced.<sup>2</sup> Additionally, a supportive companion who provides comfort and reassurance has a positive impact on the birthing experience.<sup>4</sup>

A new mother needs extensive supports and skills to ensure optimal physical and mental well-being to provide care to the newborn. This much-needed support is now often not available, due to restrictions on visitors in health care facilities and the imperative of compliance with social distancing guidelines, adversely affecting birthing mothers<sup>3</sup>. Provision of limited support has also affected women's visits to clinics for check-ups during the perinatal period<sup>7</sup>. Moreover, the lack of treatment for COVID-19 has greatly impacted women with regard to accessing health care facilities, due to fears of getting infected as well as potential harming to the foetus and loved ones. This fear around COVID-19 and lockdown in Pakistan has further affected routine immunization in newborn babies, which can lead to the risk of and realized occurrences of diseases such as measles, polio, and tuberculosis.<sup>8</sup>

Increased intimate partner violence (IPV) is also being reported in both developing and developed countries, such as China, Italy, France, the United Kingdom (UK), Ethiopia, and

Canada, during lockdown. This aberrancy leads to increased anxiety and fear during pregnancy and labour, which can be a risk factor for postpartum depression and psychosis.<sup>7,9-12</sup>

According to the World Economic Forum, the pandemic is likely to remain an issue for at least two years; hence, people will have to learn to adjust and adopt a lifestyle which aligns with recommended preventive measures.<sup>11</sup>

### **Possible Approaches: Socio-Ecological Model (SEM)**

The theoretical SEM<sup>1</sup> can be utilized to support all stakeholders by providing a framework to guide and design comprehensive interventions during unprecedented public health emergencies, such as disasters and pandemic.<sup>13,14</sup> In 2014, a similar multidimensional framework was used during the Ebola pandemic to achieve desired behaviour and outcomes.<sup>13</sup> By integrating SEM, the following strategies can be used to promote the physical, social, and mental well-being of women during COVID-19.

**Table 1: COVID-19 and physical, social, and mental well-being during the perinatal period: Integration of the SEM<sup>1</sup>**

<b>Levels of SEM</b>	<b>Strategies</b>
<b>Individual</b> (knowledge, attitudes, and behaviours)	<ul style="list-style-type: none"> <li>• Educate mothers about preventative measures to promote safe motherhood and breastfeeding during COVID-19.</li> <li>• Recognise self-health care needs and reach out as appropriate.</li> <li>• Limit and screen visitors. Interventions to minimise physical contact (holding, hugging, kissing, both newborn &amp; mother).</li> <li>• Carry out routine practices, such as frequent handwashing and sanitising surfaces.</li> <li>• Try to adhere to a routine schedule at home, including promoting an environment for rest and proper sleep.</li> <li>• Promote physical activity and relaxation exercises.</li> <li>• Contact health care providers virtually, before going to the clinic/ hospital.</li> <li>• Encourage breastfeeding, if not possible, use alternative methods such as manual expression of breast milk.</li> <li>• Wash clothes with detergent, dry in sunlight.</li> <li>• Follow a balanced diet.</li> </ul>
<b>Interpersonal</b> (families, friends and social networks)	<ul style="list-style-type: none"> <li>• Screen visitors and maintain social distancing while meeting family and friends.</li> <li>• Avoid visitors and family get-togethers.</li> <li>• Use telephone and virtual meeting apps for socialising.</li> <li>• Avoid touching and holding baby frequently (cluster care).</li> <li>• Provide a calm and clean environment.</li> </ul>

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<b>Community</b> (relationships between organisations)	<ul style="list-style-type: none"><li>• Maintain human dignity and do not refer to people with the virus as ‘COVID-19 cases’, ‘victims’, or ‘COVID-19 families’.</li><li>• Avoid physical community gatherings and connect virtually.</li><li>• Educate regarding resources for mental health and well-being.</li><li>• Assist in connecting with virtual mental health support groups.</li><li>• Take care of the dietary needs of mothers in the community practising self-isolation.</li><li>• Arrange a central response system (for mothers and families) in the community that can be supportive in an emergency.</li></ul>
<b>Organisational</b> (organisations and social institutions)	<ul style="list-style-type: none"><li>• Screen any woman who visits hospital for symptoms of COVID-19.</li><li>• Train health care team to support women suffering from mental health issues. Teach health care team cognitive behavioural therapies (CBT).</li><li>• Educate all birthing mothers regarding warning signs during the postnatal period.</li><li>• Address any doubts regarding COVID-19 transmission to newborns during breastfeeding and any physical contact.</li><li>• Advise following the baby’s vaccination schedule.</li><li>• Educate about virtual visits, m-health, and tele-clinic options.</li><li>• Encourage hand washing and routine practices, e.g. use of PPE (Personal Protective Equipment) when necessary.</li></ul>
<b>Policy/enabling environment</b> (national, state, local laws)	<ul style="list-style-type: none"><li>• Launch a 24/7 COVID-19 and mental health helpline.</li><li>• Ensure availability of well-equipped health services, including supportive infrastructure, a competent health care team, medical-surgical supplies, and transportation facilities.</li><li>• Arrange a COVID-19 task force that works collaboratively with key stakeholders at the national level and connect them with international stakeholders.</li><li>• Have a separate field hospital for COVID-19 infected pregnant women.</li><li>• Develop and suggest policies related to social distancing.</li><li>• Develop standard operating procedures (SoPs) to ensure proper screening at public places, e.g. markets, shops and banks.</li></ul>

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## **Way Forward**

We have to learn to live in the new normal COVID-19 environment by empowering individuals, families, community and health care providers (HCPs); and, effectively modifying their behaviours with the help of tools and available resources. Governments should invest and organize alternative screening methods, such as in-home testing for dyads, to prevent contact

with the virus. Surveillance system should be strengthened to monitor data related to COVID-19 and perinatal care for dyads during the current pandemic. A hotline should be initiated to report and offer support and shelter for individuals suffering from domestic violence and its related issues. Capacity-building training for midwives and other HCPs should be designed and implemented virtually by using technology. Governments should provide separate COVID-19 related field hospital for dyads. Media education should be supported, as it plays a vital role to address myths and stigma amid COVID-19. Governments should provide alternative ways to promote routine immunization and prevent newborn and child-related morbidity and mortality. Future research can be conducted to evaluate effectiveness of suggested interventions by using theoretical models and frameworks during the pandemic.

### **Conclusion**

Supportive partners and a competent health care team can make women feel supported and less stressed in the perinatal period during the COVID-19 pandemic. Limitations, such as lack of access to resources, and lack of awareness about complications and social issues, like IPV, can have adverse effects on the mother-infant dyad throughout the perinatal period. Educating mothers and their families can promote a healthier lifestyle and a positive attitude that will reduce the risk of both mental and physical complications related to COVID-19.

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