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# Uncovering the collateral impacts of COVID-19 on maternal mental health

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The COVID-19 pandemic has had a devastating impact on societal structures, health services and economies with over 40% of the world population infected at least once by Nov 14, 2021 [1]. Many communities have had to grapple with multiple stressors such as lockdowns, social distancing, debility, bereavement, and unemployment [2, 3]. Socioeconomic disparities resulting from job losses and great uncertainty about the future have been major issues experienced by many during this pandemic. These stressors have detrimentally impacted mental health with the World Health Organization (WHO) reporting a 25% increase in anxiety and depression in the first year of the COVID-19 pandemic [4]. Recent Global Burden of Disease data shows that COVID-19 has more severely affected the mental health of women more than men [5]. Evidence also points to a significant decline in maternal mental health during the COVID-19 pandemic [2, 5].

Perinatal mental health refers to mental health conditions affecting people during pregnancy and in the first year after giving birth. This includes a wide spectrum of conditions ranging from mild depression and anxiety to psychosis and recurrence of mental health issues during pregnancy [6, 7]. Research has shown that psychiatric admission is 22 times more likely following birth than in the pre-pregnancy period [8]. Conditions such as depression and anxiety are projected to affect one in seven women during the perinatal period, and carry an increased risk of preterm delivery, reduced mother-infant bonding, and impaired cognitive development of the

infant [9]. Additionally, almost 20% of women diagnosed with postpartum depression have considered hurting themselves [10].

Even before COVID-19 emerged, perinatal mental disorders were the commonest complication of child-bearing resulting in significant maternal and infant morbidity and mortality [11–13]. Perinatal mental health conditions are estimated to affect 10–20% of pregnancies although these differ by classification and disease severity [14]. Recent studies conducted in Italy [15], Canada [16], China [17] and Turkey [18] have reported a doubling in rates of depression and anxiety in pregnant women when compared to studies prior to the COVID-19 pandemic.

### Root causes and magnitude of the problem

As the true scale of the mental health burden of COVID-19 continues to emerge, it is now apparent that the restrictive measures such as quarantine, physical distancing, closure of schools and essential social services, have resulted in unprecedented stress on vulnerable groups within communities [19]. This is coupled with constraints on people's ability to work and seek support from loved ones along with the ensuing financial worries [20]. Loneliness, fear of infection, grief after bereavement, health worker burnout are also stressors that have been linked to anxiety and depression following the emergence of COVID-19. Self-harm, harmful alcohol and drug use, insomnia, and suicidal behavior have reportedly risen on a global scale since the onset of the COVID-19 pandemic [21]. With families spending more time at home together during quarantine, an increase in cases of domestic violence was recorded among women who had no escape from their abusers [22-24].

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The COVID-19 pandemic has exacerbated many of the recognized risk factors for maternal mental health disorders such as poverty, extreme stress, exposure to violence (domestic, sexual and gender-based) and low social support. This tenuous situation has been further worsened by the severe disruptions to mental health services and informal support, leading to huge gaps in care for vulnerable women who desperately require this. There are significant concerns that women with pre-existing mental health conditions could have been impacted negatively by these disruptions in service. Although virtual contact massively increased with mixed potential consequences there is a need to carefully evaluate the impact and outcomes of adopting virtual consultation. All this is further complicated by the data that shows that many women are disinclined to take antidepressants even when prescribed [25, 26].

Stigma is another major barrier which often prevents people from accessing care for maternal mental health disorders. Research has shown that women with mental health disorders present late for antenatal care due to the fear of stigma and judgmental attitudes of healthcare professionals [27].

Reproductive services have also been impacted negatively by COVID-19. Prior to the start of the COVID-19 pandemic, availability, access, and quality of interventions to address infertility was a challenge in most countries with women, poor, unmarried, uneducated and unemployed being disproportionately affected [28]. A systematic review of fifteen studies involving 5851 patients seeking fertility care unanimously concluded that the COVID-19 pandemic had a negative impact on fertility care [29]. Some of the risk factors included female sex, single marital state, prior diagnoses of anxiety or depression, and length of time trying to conceive.

A key barrier to the implementation of mental health services has been the perennial shortage of mental health workers, a problem which has persisted during the COVID-19 pandemic. In low and middle income countries (LMICs) approximately 85% of people with mental, neurological and substance-use (MNS) have been unable to access care [30] with the mental health work shortage estimated at estimated at 1.18 million mental health workers [31].

# Closing the huge gaps

The task of future-proofing perinatal mental health services against future public health crises is one that will clearly require cross-government approaches involving government departments, healthcare organizations, communities, and the voluntary sector. A good starting point would be to address the historic underinvestment in mental health services that has been seen globally.

The commitment of governments worldwide needs to be secured to increase spending on mental health from the average of just over 2% of the health budget that was recorded in 2020 [21]. This increased spending can facilitate the training and recruitment of mental health workers to improve the situation in many LMICSs which have fewer than 1 mental health worker per 100,000 people. Specific legislations and frameworks are required, at national and local levels, to facilitate the prioritization of mental health especially during public health crises. An example of such legislation is the updated Comprehensive Mental Health Action Plan 2013-2030 which was adopted by member countries at the World Health Assembly in 2021 to improve preparedness for mental health and psychosocial support in public health emergencies.

The WHO has been at the forefront of the interagency mental and psychological response to COVID-19 which has involved partners such as other United Nations agencies, international nongovernmental organizations and the Red Cross and Red Crescent Societies. The WHO has promoted the prioritization and integration of mental health and psychosocial support into the global response to COVID-19. More work is required to maximize the output from such interagency initiatives.

The participation of voluntary and community organisations in providing maternal mental health support is vital. Such groups will be able to efficiently support women with maternal health problems while promoting health literacy and stigma reduction. The Maternal Mental Health Alliance (MMHA) in the United Kingdom is an example of a successful coalition of over 100 UK organisations, including professional bodies, that has functioned well during the COVID-19 pandemic to provide women with consistent, accessible and quality care for their mental health during pregnancy and after birth [32].

Specific measures are required to support the mental health of pregnant health workers who are more prone to suffering burnout which is a major trigger for suicidal thinking. Redeployment of such vulnerable staff away from patient-facing roles and the provision of resources to promote remote working can be beneficial. Access to specialist counsellors and support workers should be provided to such health workers. Further analysis of the efficacy of virtual consultations for maternal mental health is required. These virtual care services will need to be tailored and the adoption of hybrid models may help to increase access and address the issue of limited mental health staff at community level.

It is important to systematically tackle social discrimination, challenge negative perceptions and encourage open dialogue on mental health within communities.

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Social media and other digital tools could be leveraged to achieve this. A midwife-moderated social media based support service called Facemums was successfully used during the early stages of UK lockdown to support pregnant mothers on the Facebook social media platform [33]. Such platforms could be utilized to encourage women and indeed everyone with mental health disorders to seek help for these conditions [33].

The COVID-19 pandemic has laid bare deep-seated and perennial social vulnerabilities in society that are intricately linked to social determinants of health such as class, ethnicity, gender and education level. Practical measures that promote equity, social justice, and a shift in the balance of power and resources to people living in poverty are desirable and could improve the abysmal state of maternal mental health globally.

In conclusion, the significant decline in maternal mental health that has been recorded since the start of the COVID-19 pandemic needs to be urgently addressed. Multisectoral approaches that increase funding for mental health, alleviate social vulnerabilities and facilitate greater participation of community organizations holds promise for dealing with this formidable threat.

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