

IMPACT OF COVID-19 PANDEMIC ON PERINATAL MENTAL HEALTH AND SUPPORTIVE RESILIENCE.

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ABSTRACT

Pregnancy is a period of transition, joy and enjoyment. Mental health disorders are common during pregnancy and the postnatal period. The current COVID-19 pandemic is a unique stressor with potentially wide ranging consequences for pregnancy and beyond. COVID-19 pandemic has an immense impact on society with mental health and socioeconomic status. Unknowingly or knowingly this pandemic has resulted in increased risk of mental health problems in perinatal women. The main aim of this article is to highlight the impact of COVID-19 on maternal mental health and to mitigate perinatal depression and anxiety and to promote perinatal positive psychological resilience. Screening for mental health during early pregnancy can prevent depression, anxiety and other psychological distress during pregnancy and post-partum period. Prenatal and postnatal mental health should be prioritised due to its progressing short and long-term impacts on maternal, familial and fetus, infant and child bio and social development. Therefore there is a need to access maternal mental health during all the trimesters and to improve the coping positive resilience factors that may be useful to reduce poor mental health.

Keywords: Perinatal, COVID-19, mental health, resilience

1. INTRODUCTION:

On December 2019, china reported cases of respiratory illness in Wuhan city, Hubei province to World Health Organisation, latter WHO confirmed that a novel coronavirus was the cause of respiratory illness. On the basis of confirmed cases and deaths worldwide WHO announced a pandemic of Coronavirus disease (COVID-19) that was caused by severe acute respiratory syndrome coronavirus-2 (SARS-Cov-2)^{1, 2}. The evolution of COVID 19 remains unpredictable³. Due to the rapid spread of COVID-19 disease, Governments and public health authorities of various countries and states began to implement guidance and protective measures like health policies, social distancing and isolation, partial and total lockdown in order to protect public health and prevent the spread of COVID-19^{1,6}. The continuous lockdown and social distancing have made limited access for basic needs, inactivity and increased access of alcohol addiction and online gambling³. In addition to these health measures, world economic crisis also created a great impact on mental health among all the population. These mental health issues turned out to be a psychological distress such as depression, anxiety and stress associated with more severe symptoms¹. This review article aims to provide the impact of COVID-19 on mental health during perinatal period and also highlights the importance of positive psychological resilience.

2. PREGNANCYAND COVID-19 PANDEMIC:

Pregnancy or having a baby is ideally an event that is to be enjoyed and associated with joy, delight, and fulfilment, following a safe and positive pregnancy, birth, and early parenthood⁷. Being female is the foremost risk factor for developing post-traumatic stress symptoms (PTSS) and depressive symptoms among adults and adolescents⁸. Pregnant women are always considered to a vulnerable and high risk population. Many studies have reported that psychological distress such as depression; anxiety and stress are more common in perinatal period than compared to non pregnant period⁴. Being pregnant during COVID-19 pandemic causes increased chances of developing depression and anxiety. A longitudinal study shows that there is a increase in depression, anxiety, stress, negative effect and decreased positive affect in pregnant women's during COVID- 19 pandemic and lockdown when compared to the non pregnant population¹.The perinatal period is defined as the period between conception up to 1 year post-partum⁹. Perinatal mental disorders are an important public health problem, especially in low- and middle-income countries (LMICs)¹¹. These are mental disorders that occur either in pregnancy or the postpartum period and include antenatal and postnatal common mental disorders (CMD) and the severe mental disorders (SMD). Common mental disorders include major depression and anxiety disorders, such as generalized anxiety, panic and obsessive compulsive disorders, and phobias, like social phobia. The severe mental disorders include bipolar disorder and the psychotic disorders including schizophrenia and delusional disorders can be developed latter¹¹. The prevalence of antenatal depression is estimated to be between 7% and 20% in high income countries while rates of 20% or more have reported in low and middle-income countries (LMICs)¹³.

3. DEPRESSION, ANXIETY AND STRESS SYMPTOMS DURING PERINATAL PERIOD:

Depression and anxiety are the most reported mental health problems among pregnant women¹². Studies have shown that depressive episodes occur more frequently during the first and third trimester of pregnancy, compared with the second possibly because the most pregnant women are more likely to experience stress when they are coping with the new event of becoming mothers, and when they are about to deliver the baby and start a new life¹³. Several studies on COVID -19 and pregnancy have been published recently, but the impact of this pandemic on maternal mental health has not yet been properly evaluated. The symptoms start with lack of sleep, relationship tensions and feel of isolation which untreated leads to perinatal mood disorders⁴. Symptoms that were listed for sickness of thoughts by primary health care workers and maternity blues by mental health specialists included excessive sadness for longer than two weeks, crying more than usual, low moods, sleep disturbances, less interest in daily activities that a woman used to enjoy, feeling worthless, outbursts of anger, lack of appetite, weight loss, lack of nervous energy, excessive worries, suicidal thoughts, social withdrawal, fearing life situations, and substance use^{10,11}. Other symptoms mentioned by only a few mental health specialists for maternity blues and only a few primary health care workers for sickness of thoughts were hallucinations, uncoordinated speech, and fever. In contrast, perinatal women and community health care workers were more likely to list behavioural symptoms than emotional symptoms. Infanticide (i.e., the drive of a woman to kill her newborn baby), was noted as a very severe symptom of sickness of thoughts or depression¹⁰. During the postpartum period, mood disorders are by far the commonest mental disorders. These include the postpartum blues which are a mild and self-limiting form of postpartum distress, non-psychotic postpartum major depression and bipolar mania. Psychosis in the postpartum period is commonly manic in nature but may occur in form of psychotic depression, schizophrenia or an organic psychosis. These conditions frequently have their onset during the postpartum period although they may occur as a recurrence of an existing disorder¹¹.

4. SHORT TERM AND LONG TERM EFFECTS DUE TO POOR MATERNAL MENTAL HEALTH:

Poor maternal mental health, a crucial health concern in its own right, is associated with multiple poor child outcomes including suboptimal breastfeeding and immunization coverage, higher rates of diarrhoea and febrile illness and negative impacts on child development¹⁰. The effect of mental health was poorly understood and it is critically difficult to measure the mental health of perinatal women whose mental health not only affect them but has a intergenerational consequences². Depression during perinatal period can affect both the mother and offspring. Uncontrollable stress increases the risks for maternal depression and anxiety².

Depression, anxiety and stress during pregnancy cause severe adverse effects for both mother and baby resulting in low term birth weight, lower apgar scores, smaller head circumference and major congenital anomalies, impaired cognitive development, chances of high cesareans and postnatal depression^{5,13}. The adverse events due to psychological distress during antenatal period may result in neuropsychological problems like anxiety disease, attention deficit hyperactivity disorder in infants, conduct disorder during childhood,

premature delivery and infant mortality in rare cases^{1, 13}. The depression during the first months of pregnancy period can alter development and regulation of the hypothalamus - pituitary adrenal axis, although psychopathology is well established in pregnancy, the pandemic crisis will exacerbate the condition^{1, 2, 4}. A prospective longitudinal study shows a higher depression symptom in pregnant women during COVID-19 pandemic and in early pregnancy when compared to precovid-19. Anxiety symptoms also increased during covid19 pandemic when compared to precovid-19². The increased risk of depression during the prenatal period continues to cause severe depression during the postpartum period and it alters the body immune response^{1, 4}. Psychosocial stress, particularly during early pregnancy, has been identified as a key risk factor in the aetiology of a preterm birth⁷. These children are also at increased risk of impulsivity and cognitive disorders at 14 and 15 years old, and at increased risk of encountering adverse life events in life and of developing depression in adolescence and adulthood. Maternal increased levels of cortisol that have been associated with depression, anxiety and stress, which can cross the placenta and be transferred to the foetal environment and affect the developing fetus¹³.

5. IMPORTANCE OF PERINATAL MENTAL HEALTH SCREENING AND CARE

Health care providers are the most important persons to care for mental illness during perinatal period. The World Health Organization (WHO) recommends that in order to increase access to perinatal mental health care, this should be integrated into primary health care¹¹. They help to identify and treat the specific mental illness by providing supportive cares a pregnant women need⁴. Epidemiological study data on mental health during COVID-19 are increasing. Preliminary data shows that women's are at increased risk of getting affected with psychological distress due to COVID-19 pandemic⁵. Previous epidemiological data from mental health study during SARS epidemic 2003 have found that higher rates of depression, anxiety, panic attack, psychomotor excitement and psychotic symptoms, even suicidal thoughts were found among the survivors⁶. Antenatal depression has also been recognized as the strongest forecaster of postnatal depression, and postnatal depression is the strongest predictor of parenting stress and difficulties in the mother-infant relationship¹³. Taken together, this brings evidence point to the importance of focusing on the antenatal period in order to develop preventive and therapeutic interventions¹³.

Maternal distress during pregnancy has been associated with serious negative outcomes, including maternal psychosocial functioning, parenting difficulties, and offspring psychopathology⁸. There is a tendency to focus on maternal and foetal physical health during pregnancy, rather than mental health and to misattribute emotional complaints to the physical and hormonal changes that occur during pregnancy^{11, 13}. Indeed, these women often present with atypical symptoms of depression and unspecified somatic complaints such as fatigue, loss of energy, appetite and sleep changes, rather than depressed mood. Therefore, it can be difficult to distinguish between "normal" pregnancy symptoms, which are common during pregnancy, and atypical somatic complaints, which may be related to depression or anxiety. This obviously makes it more complicated to diagnose depression and anxiety without a standardized assessment¹³. Diagnosing antenatal depression can also be difficult if women are only screened once throughout pregnancy. In fact, multiple evaluations during pregnancy can show differences in the rates of depression and anxiety¹³. The fact that many women present anxiety or depressive symptoms at one or two time points implies that only one screening is

not enough during pregnancy. There are a number of reasons why mental health problems in the antenatal period have received much less attention than in the postpartum^{12, 13}. These circumstances make antenatal depression among the most under-recognized and under-treated conditions¹³.

6. FACTORS THAT TRIGGER POOR MATERNAL MENTAL HEALTH DURING PANDEMIC:

COVID-19 pandemic created novel living conditions include confinement, changes in daily routines, transformation of social life, loss of freedom, concern about health and financial issues, among other consequences. The factors that are implemented to reduce the spread of COVID-19 can have the negative influences in pregnancy population which are due to the financial problems, interrupted prenatal care and self concerns on their own health and fetus¹. Other factors loss of income and housing, fear of getting infection, social and physical distancing, losing a loved one, loss of job². Unavailability of vaccines, unpredictability of pandemic situation, quarantine for unlimited time, overflow information of COVID 19 death rates in social media have all associated with stressful feeling which triggered increased the common mental health problem such as depression and anxiety⁶.

Emotional factors like Living in household with an affected person, limited good/services for emergency health care check up and social care⁷. Importantly, The health status of the unborn child during the pandemic, the consequences of preventive measures, and the unmotivated fear of receiving less support and care during labour, birth or the pre and the post-natal period can all increase psycho-emotional distress⁸. Lack of guidance in the surroundings and care appointments was a concern shared by both pregnant women and postpartum women. Lack of anticipated support networks and isolation made more stress⁴.

Antenatal depression and anxiety have also been associated with inadequate nutrition and weight gain, increased alcohol consumption, substance abuse and smoking; moreover, mothers with antenatal anxiety and depression are more likely to access perinatal services late, to attend antenatal care appointments less frequently, and to fail to have regular scans during pregnancy¹³. These uncertainties are likely to add to psychological stress and may even lead to increased rates of pregnancy terminations¹⁴. Household, health-system and community level factors emerged as important barriers to uptake and delivery of perinatal mental health care¹¹. Relationship tensions were also found to one of the factors that promote poor mental health, were a problematic or dissatisfied/poor relationship with partner have been identified as risk factors for the onset of anxiety and depression during pregnancy¹³. Studies have shown that poor couple interaction or poor relationship quality also affects their mental health, such as anxiety or depression symptoms during pregnancy¹². Lack of social support is another factor strongly associated with an increased risk of antenatal anxiety and depression. Social support is a multidimensional concept and includes informational support, instrumental support and emotional support¹³. Antenatal depression and anxiety also seem more common in women with low educational achievements. Antenatal anxiety and depression have also been found to be more prevalent in unemployed women^{13, 14}.

7. SUPPORTIVE CARE TO REDUCE PERINATAL PSYCHOLOGICAL DISTRESS:

Although covid 19-pandemic was a stressful disaster, some researches supported that interpersonal support and social connections decreased the rate of depression and anxiety among perinatal womens whereas the stay at home and other social distancing interventions will have a great impact on perinatal period². Pregnant women most commonly expressed their stress due to uncertainty surrounding care and risk exposure related to prenatal care appointments, birth related plans and expectations. So implementing antenatal care centres in maternity clinics will be helpful in preventing psychological distress during pregnancy and post-partum. Positive resilience such as emotional support from their partners made pregnant women and new mothers to feel less stressed during COVID 19 pandemic. Getting outdoors and being in nature promoted their mental health. Staying on schedules made them to stay mentally happy and healthy like rescheduling their daily routines, spending time in parenting, coordinating work schedules⁴.

Sources of resilience were identified from previous epidemiological study data and are supported by past research that has explored resilience among perinatal women during disasters. Virtual media platforms like texting, video calls to friends and family were found to be supportive^{4, 14, 15}. Engaging in self-care behaviours such as getting recommended amount of sleep, eating nutritive foods, self pampering and exercise were identified as protective coping behaviours in the quantitative data¹⁴. Qualitative data suggested that social support, and specifically partner and emotional support gratitude and optimism and the management or shifting of expectations were significant protective factors for pregnant and postpartum women, particularly during exposure to significant environmental stressors⁴. Exercise and mild physical activity has been shown to reduce depression and anxiety during pregnancy and eventually increase healthy mental attitude⁵. WHO guidelines for antenatal and for postpartum care support the importance of positive clinical and psychosocial pregnancy and childbirth experiences to optimise the physical and psychosocial wellbeing of mother, baby, and the family in the short and longer term⁷.

Although greater fear of COVID-19 was associated with poorer mental health, it can be prevented by engaging in preventive COVID-19 behaviour. Therefore, in the context of COVID-19, fear appears to promote protective health behaviour¹². Providing positive suggestions and recommendations in the form of hand-outs/one-pagers/leaflets during prenatal and postpartum care visits can help in decreasing depression. Recommended topics include remote and safe ways to promote social connection, outdoors benefits, gratitude, managing expectations related to delivery, and self-care behaviours can be included in prenatal care. Increase opportunities for social connection during prenatal and postpartum tele-health classes, Provide resources related to mental health supports and care for all prenatal and postpartum women⁴.

Task sharing antenatal counselling for depressed women could potentially help improve depressed women's mood, which in turn can prevent suicide, reduce negative obstetric complications and improve infant outcomes^{9, 10}. The development and adaptation of task sharing counselling interventions for perinatal depression should be informed by the views and needs of local service users and service providers to determine the acceptable content and form of such an intervention. The study illustrates the manner in which evidence-based

psychological interventions can be adapted for use by community health workers within a task sharing framework in low and middle income countries⁹.

Cognitive Behavioural Therapy (CBT) suggests that when an individual is depressed or distressed they experience cognitive errors in thinking such as having rigid, distorted judgement about themselves or other people. CBT further suggests that if clients are taught to monitor their negative mood, thoughts and behaviour, they can learn to alter these through techniques like healthy thinking and behaviour activation. CBT has been found to be effective in LAMICs by motivating poverty stricken pregnant women to become active and change unhealthy thinking patterns, thereby reducing their depressive and anxiety symptoms^{9,10}.

Problem Solving Therapy Problem Solving Therapy (PST) is brief structured therapy which focuses on interpersonal problems in the present social context through combined identification, exploration of problems, and identification and implementation of solutions.

Interpersonal Therapy (IPT) is an intervention which focuses on four main interpersonal problem areas, namely grief, role transitions, interpersonal or role disputes and interpersonal deficits that are believed to be at the root of depressive symptoms^{9,14}. Understanding the root of interpersonal stress can help an individual to come up with new ways of responding to their situations as well as reduce the triggers for depressive, anxiety and stress symptoms⁹. Perceived support and marital satisfaction are protective factors against antenatal anxiety and depression¹³.

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9. CONCLUSION

Considering the negative impact on mental health life due to the pandemic, higher authorities should implement set of guidance and actionable information on public health measures and psychological measures to safeguard the mental health in pregnant population. The Centres for disease control and prevention has designated that pregnant and post partum women's are vulnerable population during this COVID- 19 pandemic. Identifying the safe way to provide social support during this pandemic is needed to control the depressive, anxiety and stress symptoms in pregnant and postpartum women to prevent the future adverse child outcomes. Hence, it is important to proactively develop suitable strategies to lessen stress by screening, identifying and managing perinatal mental health disorders during the COVID-19 pandemic. Internet -based screening tools, virtual online consultations/video counselling and web – based mental health assessments, psychological support and therapeutic interventions may have an important role in preventing psychological distress during this pandemic. Therefore there is a need to access their mental health and to improve the coping positive resilience factors that may be useful to reduce poor mental health among pregnant and post-partum women.

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