

Psychosocial impact of COVID-19: Health impact and clinical findings

Abstract

Comment [V1]: Abstract is too long and should not have reference numbers

Besides its high mortality rates, COVID-19 disease has dramatic psychosocial and psychological effects on population worldwide. There are significant reports of mental issues, panic attacks, anxiety, depression and financial difficulties and the effects continue to persist months after recovery. The disease itself is multiplied by many other problems like post-traumatic stress disorder, depression, change in behaviours. All these have a major impact on people's lives. It also has adverse effects in pregnancy. COVID-19 has affected mother's as well as child's health. There are many panic and anxiety issues. Many deaths were not even reported. Coronavirus pandemic has led to many health and mental illnesses as there were lockdowns that led to financial difficulties and problems in present with effects on the future too. Long-term neuropsychiatric effects may be caused by more than only the huge psychological trauma suffered during the outbreak. Poor developmental outcomes in offspring have been associated to prenatal psychological distress, including abnormalities in brain development 4, 7, as well as and worse socioemotional and cognitive development. This article intends to define psychosocial impact of COVID-19 on students, health workers, and pregnant women, and how their lives and mental health have been affected worldwide. COVID-19 affected work place. Stress throughout pregnancy and early life has been linked to cancer lately.

It has affected many lives agricultural areas ,economic Financial losses.Current reports put forward feasible passing on vertically coronavirus , although longitudinal studies offspring are needed. The paternal infection on the offspring and generational cupshot can be contemplate.

Keywords

COVID-19, psychological, anxiety, depression, neurological, pregnancy

Introduction

During the pandemic we lost many lives, our friends, family and relatives. Apart from the high mortality rates there was a major impact on mental health. COVID-19 has brought fear, anxiety and depression around the world. Mass fear of COVID-19 was seen around the world.[1] COVID-19 has affected social lives, workplaces, and mental health due to isolation, and social distancing. This has caused a psychiatric and mental health impact on both children and adults. According to COVID guidelines, lockdowns were implemented all across the world to stop spread of COVID-19 infection.

One of the most essential steps adopted during the lockdown was shutdown of schools, educational institutions, as well as recreation centres. Everyone experienced tension, and as a result of these unforeseen circumstances, one experienced anxiety and a sense of powerlessness.

In comparison to adults, it has been claimed that this pandemic may have longer-term detrimental consequences for children and adolescents. Numerous aspects influence the nature and extent of the infection, including developmental age, current educational status, special needs, having a pre-existent mental health condition, being economically disadvantaged, and having a child or parent quarantined due to infection or fear of infection.

In those who are COVID-19 positive, more complicated neuropsychiatric symptoms such as alterations in behaviour and psychosis can appear. As a result, thoroughly documenting frontline physician observations of neurological and neuropsychiatric consequences and following such individuals longitudinally is critical.

Coronavirus pandemic has led to many health and mental illnesses as there were many lockdowns which led to financial difficulties and problems in present and affecting the future too. Many agricultural workers – waged and self-employed – while feeding the world, regularly face high levels of working poverty, malnutrition and poor health, and suffer from a lack of safety and labour protection as well as other types of abuse.

The next sections describe results of research on the children's and teenagers' mental health affected by the COVID-19 epidemic, as in addition to national lockdowns to prevent further spread, regional lockdowns have also been implemented.

Aim

To assess the effects of coronavirus disease 2019 (COVID-19) on of the psychosocial impact of COVID-19 on pregnancy, children, isolation and quarantine, maternal, perinatal and neonatal outcomes by carrying out a review of posted studies on the population affected by COVID-19.

Objective

To analyse the effects of psychosocial impact of covid 19 on mental health of adults, and children,

Methods:

COVID-19's impact on maternal, perinatal, and neonatal outcomes was investigated in depth. A review was done to determine the impact of COVID-19 on maternal, perinatal, and neonatal outcomes. We used PubMed, Google Scholar, and EMBASE to conduct a complete literature search, which included 20 April 20.

Comment [V2]: Clarify the period

For searching purpose, following keyword combinations and medical subject heading (MeSH) terms were used: 'coronavirus disease', 'covid-19', 'SARS-CoV-2', 'pregnancy', 'gestation', 'mother', 'maternal', 'maternal-fetal transmission', 'vertical transmission', 'intrauterine transmission', 'infant', 'neonate' and 'delivery'.

Data was collected from medical records of A.V.B.R.H hospital and various articles.

Result:

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A wide number of cases, reports and studies had identified that only 324 pregnant women were with positive COVID cases. 24 case studies had met the criteria of eligibility and were included in reviews. Most of the common symptoms found were of fever, cough, dyspnoea, fatigue, myalgia etc. Infections with severe acute respiratory syndrome during pregnancy had led to adverse outcomes such as preterm labour, miscarriage, stillbirth, and congenital malformation following high fever as observed in first trimester. It was observed that COVID positive women also suffered from increase emotional eating (EE) which is associated with gestational weight gain (GWG) due to increased intake of food. Findings suggested the need of providing psychosocial and nutritional education during check-ups. Pregnant women suffering with these infections were seen to be facing depression and anxiety issues more when compared to COVID negative pregnant women

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Discussion:

Impact of COVID on children

Being quarantine in homes, may cause a significant anxiety and psychosocial impact on children, making them emotionally unstable.[2]. Schools are closed which has also affected children's health and somewhere their future too.[2] They are the most susceptible group to infections and extended illness can be seen. Mostly education is affected which has its own consequences. They don't have one to one interaction with teachers. Physical activities are stopped which has adverse effect on their physical health. They have become dependent on their parents, and they have lost interest in schooling, and also become lazy. They are attending online lectures which is not feasible for everyone. Being economically stable they can buy phones but children who are economically underprivileged are not able to attend lectures. The COVID-19 pandemic may have long-term effects for children from low-income households, including child labour, child trafficking, child marriage, molestations, and death. [2]. Quarantined children experience greater psychological issues than non-quarantined children [3]. Helplessness and anxiety are the most common challenges faced by children in quarantine.[3]. Numbness, dizziness, flashbacks, and significant neurological disorders may occur in certain youngsters who have disastrous ideas. [4] COVID-19 could lead to a rise in psychiatric diseases such stress, depression, anxiety, and grief-related disorders.[5]

Impact of COVID on health care workers

Healthcare workers are one of the most vulnerable groups to COVID-19 and its psychosocial implications because of their role in caring for affected people. [6]. Professionals working in hospitals presented with moderate to severe anxiety problems, and with concerns about the viral infection itself, fear of contamination and spreading the disease to their family members.[7] Because of the emotional stress of the situation, these experts are more likely than the general population to experience psychological effects. As a result of their separation from their families, Post-Traumatic Stress Disorder (PTSD) is increasingly common. [6]. Stress can be caused by a variety of factors, including exhaustion of personal protective equipment, concerns about not being able to work properly if assigned to new locations, concerns about rapidly upgrading information, a lack of time and access to current valid information and communication, drug

shortages, and a shortage of health-care facilities such as ventilators and beds needed to care for the surge of critically ill patients.[7] They live alone in their rooms with no one to talk which will most likely lead to depression and anxiety disorders. It has been noted that impact of stress on health can be reduced by increased rewards. [7] The fact that this disease is brand new, extremely infectious, without a cure, and with rapid updates on its results, has caused concern. [8] Health-care employees who are married have lower rates of depression than those who are not, which is likely due to the support that marriage gives, which lessens the risk of depression and loneliness. [8].

Higher mental health deficits were linked to lockdown measures, a diminution in social interactions, and a stronger sense of life changes. Importantly, poor mental health was linked to a rumoured but unofficially publicised stay-at-home order.

Impact of COVID-19 in pregnancy

Emerging infectious diseases, as well as the responses to them (i.e., isolation, quarantine, and social distance), have had a significant impact on people's lives and caused a great deal of psychological distress. Pregnancy is a special moment in a woman's life when immune system and physiology changes occur, potentially putting her at risk for psychological distress. As a result, psychological pain and mood fluctuations would be exacerbated by the pathophysiology of COVID-19 infection during pregnancy, as well as fear and apprehension about the implications on them and their newborns. Multiple SARS-CoV-2 infection crises during pregnancy may have long-term psychological and mental health consequences for the mother. [8]

Coronavirus is a virus that can induce a cytokine mediated hyperinflammation, with neurological consequences, as part of its pathology. Acute respiratory dysfunction, as well as the pathogenetic course of the acute immune response, can have immediate and continuing repercussions on cognition and neuropsychological performance. In addition, emerging diseases and the ensuing reaction measures (i.e., isolation, lockdowns, quarantine, and social distancing) have had a huge impact on people's lifestyles and caused a great deal of psychological distress. [8]

Mother–baby separation has gotten a lot of attention during the COVID-19 outbreak. Patients who have been recovered from COVID-19 are quarantined for 14 days to ensure that the disease does not resurface. Furthermore, nearly half of the mothers kept their children apart for fear of illness,

and only a small fraction of women breastfed their newborns in the first few months. Premature mother and baby segregation has been linked to pessimistic effects on new born neurologic brain amelioration, parent psychological well-being, and the parent and infant connection, as well as early nursing termination.

Increased health anxiety was connected to unemployment or underemployment, as well as current or former psychotherapeutic or psychiatric therapy. Being younger, having loneliness was linked to a lower educational level, unemployment, living alone, and having current or previous psychotherapeutic or psychiatric therapy. Higher psychosocial stress was linked to females, younger age, inadequate educational level, living together in a partnership, living with underage children, and present or previous mental therapy. Females, the elderly, high educational levels, employment, cohabiting with a spouse, cohabiting with children, and no current or previous relationship were all connected to higher life satisfaction. [9]

Long-term neuropsychiatric effects may be caused by more than only the huge psychological trauma suffered during the outbreak. The virus's contamination of the central nervous system, as well as the host's immunological response, may contribute to the development of neuropsychiatric sequelae in new-borns. [10]

Infections have been associated with increased risk of schizophrenia spectrum disorders in epidemiologic and birth studies. Maternal viral infections during pregnancy have been associated with increased risk of neurodevelopmental problems such as autism, schizophrenia, and epilepsy in the offspring. [10]

COVID-19 encephalopathy might be a direct viral impact caused by neuro-invasion, an immune-mediated disease generated by the virus, an indirect immunopathology caused by blood-brain barrier malfunction, or a combination of the three [11]. Inflammation and neuronal death were seen in a COVID-19 post-mortem analysis, however viral infiltration was not confirmed (Von Weyhern et al.). In seriously afflicted COVID-19 individuals, magnetic resonance imaging (MRI) may allow early detection of neurological involvement or distinction of real neurological involvement from toxic and metabolic CNS consequences. Lumbar puncture CSF investigations have a history of yielding negative results.

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A comprehensive study (Rogers et al., 2020) found a higher incidence of depression, anxiety, exhaustion, and sleeplessness following COVID-19 infections, confirming early claims of increased mental health issues. Methodological flaws, such as a lack of pre-infection evaluations and control groups, hampered the findings.

Comment [V6]: Also add reference number

Intriguingly, in those who are COVID-19 positive, more complicated neuropsychiatric symptoms such as alterations in behaviour and psychosis appear. As a result, thoroughly documenting frontline physician observations of neurological and neuropsychiatric consequences and following such individuals longitudinally will be critical. CNS impacts that impair behaviour and cognition in adults and children (especially during crucial stages of childhood growth and adolescence) might lead to mental illnesses with long-term consequences. [12]

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Comment [V7]: repetition

Poor developmental outcomes in offspring have been associated to prenatal psychological distress, including abnormalities in brain development [4, 7], as well as worse socio-emotional and cognitive development.

Even among socioeconomically wealthy women with low-risk pregnancies, pregnant women are more likely to suffer significant levels of depression and anxiety symptoms during the COVID-19 pandemic, which might harm mothers and foetuses.

Psychological pain and mood swings would be exacerbated by the pathogenesis of COVID during pregnancy, as well as the fear and uncertainty about short- and long-term consequences for themselves and their newborns. Multiple SARS-CoV-2 infection crises during pregnancy may have long-term repercussions on the mother's mental health as well as the neurobehavioral system development of the infant. [13-20]

Mother-baby separation is a critical issue that needs to be addressed during the Covid-19 pandemic. To guarantee that Covid-19 does not recur in China, all treated patients are segregated for 14 days. Due to a fear of infection, nearly half of women stayed separated from their children after the quarantine ended, and nursing was poor in the early months, according to our findings.

Early mother–baby separation has been linked to negative effects on the brain development of newborns, parents' psychological well-being, and the attachment between parents and infants, as well as early feeding termination. Stress throughout pregnancy and early life has been linked to a higher risk of developing cancer later in life.

Our findings, in contrast to previous studies, pinpointed the link between mother–baby separation days and early developmental deficits in a range of areas, including communication, gross motor, problem solving, personal–social, and social and emotional development, allowing for more precise proofing.

Conclusion:

Pregnancy is that stage of women's life where a woman undergoes through innumerable physical changes inside her body. This phase of her life is certainly crucial undergoing through which later she gets almost a new life. Pregnant women become more vulnerable to various infections, especially considering today's scenario where COVID-19 had not only infected but also destroyed many lives of healthy and lively individuals. There can be a possibility that an infant (new-born) may also get affected by the infectious viruses. So, it's mandatory to take proper measures, in case of suspicion of any of the symptoms. To avoid such symptoms, and prevent occurrence of any serious complications, proper hand hygiene, personal hygiene, diet etc, must be followed regularly, especially a woman carrying an infant must adhere to all such practices.

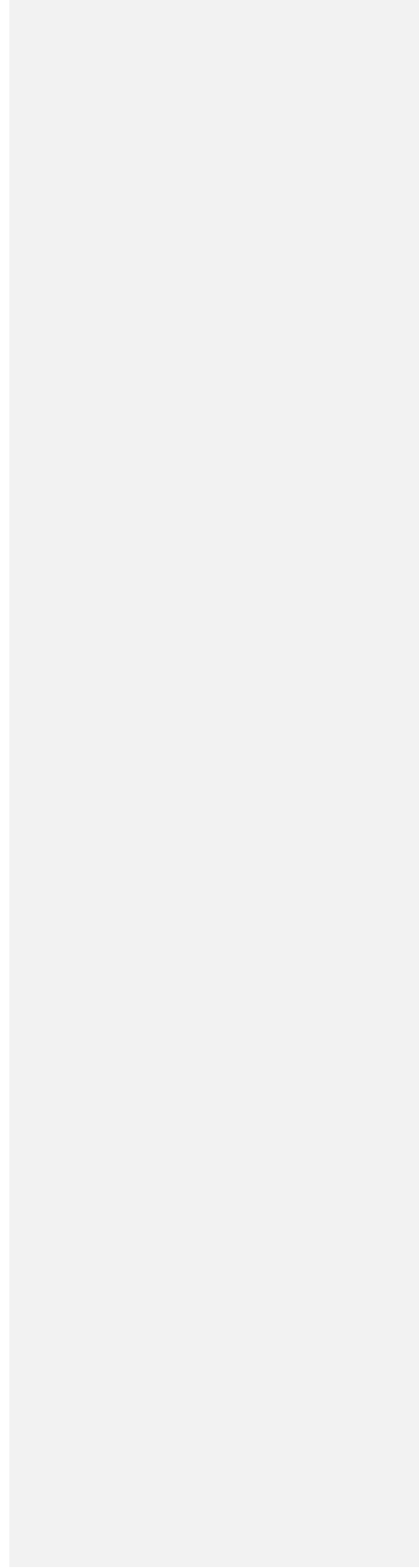
Comment [V8]: conclusion is not including points about children, workplace and healthcare workers. Please add.

References

1. Dubey MJ, Ghosh R, Chatterjee S, Biswas P, Chatterjee S, Dubey S. COVID-19 and addiction. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*. 2020 Sep 1;14(5):817-23.
2. Ghosh R, Dubey MJ, Chatterjee S, Dubey S. Impact of COVID-19 on children: special focus on the psychosocial aspect. *Minerva Pediatrica*. 2020 Jun 1;72(3):226-35.
3. Saurabh K, Ranjan S. Compliance and psychological impact of quarantine in children and adolescents due to Covid-19 pandemic. *The Indian Journal of Pediatrics*. 2020 Jul;87:532-6.
4. Ye J. Salud mental y conductual pediátrica en el período de cuarentena y distanciamiento social con COVID-19. *Padre peditra de JMIR*. 2020;3(2):e19867.
5. Singh S, Roy MD, Sinha CP, Parveen CP, Sharma CP, Joshi CP. Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations. *Psychiatry research*. 2020 Aug 24:113429.
6. Rodriguez MR, Calderon MR. *Tania* (engl.). Ocean Bks.; 1973.
7. El-Hage W, Hingray C, Lemogne C, Yroni A, Brunault P, Bienvenu T, Etain B, Paquet C, Gohier B, Bennabi D, Birmes P. Health professionals facing the coronavirus disease 2019 (COVID-19) pandemic: What are the mental health risks?. *Encephale*. 2020:S73-80.
8. Wang Y, Chen L, Wu T, Shi H, Li Q, Jiang H, Zheng D, Wang X, Wei Y, Zhao Y, Qiao J. Impact of Covid-19 in pregnancy on mother's psychological status and infant's neurobehavioral development: a longitudinal cohort study in China. *BMC medicine*. 2020 Dec;18(1):1-0.
9. Benke C, Autenrieth LK, Asselmann E, Pané-Farré CA. Lockdown, quarantine measures, and social distancing: Associations with depression, anxiety and distress at the beginning of the COVID-19 pandemic among adults from Germany. *Psychiatry Research*. 2020 Nov 1;293:113462.
10. Zimmer A, Youngblood A, Adnane A, Miller BJ, Goldsmith DR. Prenatal exposure to viral infection and neuropsychiatric disorders in offspring: a review of the literature and recommendations for the COVID-19 pandemic. *Brain, Behavior, and Immunity*. 2020 Nov 3.
11. Berthelot N, Lemieux R, Garon- Bissonnette J, Drouin- Maziade C, Martel É, Maziade M. Uptrend in distress and psychiatric symptomatology in pregnant women during the coronavirus disease 2019 pandemic. *Acta obstetrica et gynecologica Scandinavica*. 2020 Jul;99(7):848-55.
12. Pantelis C, Jayaram M, Hannan AJ, Wesselingh R, Nithianantharajah J, Wannan CM, Syeda WT, Choy KC, Zantomio D, Christopoulos A, Velakoulis D. Neurological, neuropsychiatric and neurodevelopmental complications of COVID-19. *Australian & New Zealand Journal of Psychiatry*. 2020 Oct 1:0004867420961472.
13. Juan J, Gil MM, Rong Z, Zhang Y, Yang H, Poon LC. Health Economics of Interventions to Tackle the Coronavirus 2019 Pandemic.
14. Acharya, Sourya, Samarth Shukla, and Neema Acharya. "Gospels of a Pandemic- A Metaphysical Commentary on the Current COVID-19 Crisis." *JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH* 14, no. 6 (June 2020): OA01–2. <https://doi.org/10.7860/JCDR/2020/44627.13774>.

15. Arora, Devamsh, Muskan Sharma, Sourya Acharya, Samarth Shukla, and Neema Acharya. "India in 'Flattening the Curve' of COVID-19 Pandemic - Triumphs and Challenges Thereof." JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS 9, no. 43 (October 26, 2020): 3252–55. <https://doi.org/10.14260/jemds/2020/713>.
16. Bawiskar, Nipun, Amol Andhale, Vidyashree Hulkoti, Sourya Acharya, and Samarth Shukla. "Haematological Manifestations of Covid-19 and Emerging Immunohaematological Therapeutic Strategies." JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS 9, no. 46 (November 16, 2020): 3489–94. <https://doi.org/10.14260/jemds/2020/763>.
17. Burhani, Tasneem Sajjad, and Waqar M. Naqvi. "Telehealth - A Boon in the Time of COVID 19 Outbreak." JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS 9, no. 29 (July 20, 2020): 2081–84. <https://doi.org/10.14260/jemds/2020/454>.
18. Butola, Lata Kanyal, Ranjit Ambad, Prakash Kesharao Kute, Roshan Kumar Jha, and Amol Dattarao Shinde. "The Pandemic of 21st Century - COVID-19." JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS 9, no. 39 (September 28, 2020): 2913–18. <https://doi.org/10.14260/jemds/2020/637>.
19. Dasari, Venkatesh, and Kiran Dasari. "Nutraceuticals to Support Immunity: COVID-19 Pandemic- A Wake-up Call." JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH 14, no. 7 (July 2020): OE05–9. <https://doi.org/10.7860/JCDR/2020/44898.13843>.
20. Dhok, Archana, Lata Kanyal Butola, Ashish Anjankar, Amol Datta Rao Shinde, Prakash Kesharao Kute, and Roshan Kumar Jha. "Role of Vitamins and Minerals in Improving Immunity during Covid-19 Pandemic - A Review." JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS 9, no. 32 (August 10, 2020): 2296–2300. <https://doi.org/10.14260/jemds/2020/497>.

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