



Review Article

Mental health implications of COVID-19 outbreak on children

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ABSTRACT

The COVID-19 pandemic is equally effecting the adult population and the children's in terms of mental health. Children's are more susceptible to develop mental health problems as they are in the developmental stage of life. Anxiety, frustrations, impairment of sleep, feeling of helplessness is the common presentations of children during this pandemic outbreak. The health related quality of life has also been deteriorated owing to home confinement and less physical activities. The ongoing situation is quite incongruent with their developmental stage. Children's are unable to go to school, isolated from their peer group, affecting their healthy development of the brain. It is also evident that the screen time is also gradually increasing which also contributes the brain development in a negative way. It is an important task to monitor the children's mental and emotional health in this crucial period. Parents and care takers should understand this challenging environmental situation, which may have a devastating effect on their children's mental health if not handled with utmost care.

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1. Introduction

In December 2019, Wuhan, Hubei province, China became the center of an outbreak of pneumonia of unknown cause, which raised intense attention not only within China but internationally¹. As concern rose over the world, the World health organization and other health authorities started investigating the cause, character and control of the disease. The cause is a new strain in the corona virus family, provisionally named 2019 novel corona virus (2019-nCoV),¹ SARS-CoV-2 or COVID-19. India has also been severely affected by this novel corona virus. The first cases of COVID-19 In India were reported on 30 January 2020 in the state of Kerala.²

The scenes of suffering in India are hard to describe. As of May 4, 2021, around 20.2 million cases of COVID-19 had been reported, with a rolling average of 378000 cases each day, together with more than 222000 deaths, which experts believe are likely to be substantial underestimates.³ It has

been indicated that compared to adults, this pandemic may continue to have increased long term adverse consequences on children and adolescents⁴ The U.N. children's fund fears the ferocious second wave of COVID-19 in India could spread like wildfire across South Asia and increase multiple health and protection risks for many children across the region. As cases continue to surge, the U.N. children's fund says the corona virus is sickening and killing a growing number of children and infant.⁵

The covid-19 pandemic has crushed the world rapidly without a signal of its forthcoming. It is considered to be a sudden deadly threat to the globe which affects the daily routine of the individual and causing an intense feeling of stress, anxiety, depression, and worries. This has challenged all age group of people but made it much difficult for the children who are at their developmental phase. There is a much raising awareness on psychological and mental health impacts of children during the pandemic situation. The children, who are considered to be the future citizen of any country are at greater risk for developing certain mental health and psychological issues due to the detachment from

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the social environment. The level of stress and isolation faced by the children can affect the healthy development of the brain, which in turn may have long term serious consequences.

Today, 99% of the world's children live under some sort of pandemic related limit on movement; 60% reside in countries under full or partial lockdowns and 1.5 billion children are out of school.⁶ Children are experiencing a protracted state of physical isolation from their peers, teachers, relatives, and community networks. Social distancing and school closures therefore increase the psychological state problems of children and adolescents, who are already at higher risk for developing mental health problems compared to adults at a time when they are also experiencing anxiety over a health threat and threats to family employment/income.⁷

The number of children and teenagers seeking help for anxiety or depression during the pandemic is rising across the country. A study by the Centers for Disease Control and Prevention (CDC) found that the percentage of children ages 5-11 seeking mental health care at emergency department in 2020 increased by 24% from 2019. For children ages 12-17, mental health related emergency room visits increased 31% over the previous year.⁸

Various studies highlighted the psychological and mental health impact of previous quarantine. One study found high rates of post traumatic stress disorder symptoms in children affected by a previous pandemic, associated with isolation and quarantine.⁹

2. Impact of COVID-19 On Children's Mental Health

The pandemic seems to be a unique form of a stressful event with researchers calling it an 'ongoing cardiac stress test'.¹⁰ The COVID-19 restrictions, limitations, and measures for social distancing brought the world to its knees. This rise in tension and frustration caused many of us and our lives to become distraught.¹¹ The unexpected disruption of the social fabric and norms has affected the behavioral and mental health of the public, including children.

2.1. Health related quality of life of children

Health-related quality of life (HRQoL) has been defined as the level of wellbeing consequent from the evaluation that a person makes of diverse domains of his life, considering the impact these have on his health status. It is characterized as subjective, multidimensional, and changing over time.¹² Children and adolescents face massive changes in their daily lives, including school closures, home confinement, and social distancing rules, which can burden them substantially.¹³ Managing with the present situation and complying with the current restrictions on top of this can be especially difficult for children and adolescents since these circumstances are often experienced as being

in congruent with their developmental tasks. Children are highly affected by family and community conditions, such as family stress, conflict related to finances, parental psychopathology and their practices.¹⁴ The challenges and consequences of COVID-19 might therefore have a tremendous impact on their HRQoL.¹⁵ The healthy daily routines of children have been disrupted due to the COVID-19, which contributes to the additional stress and sleeping difficulties that many children face. Uncertainty of their future ambitions, academics, personal relationships, and inactivity due to the pandemic poses a big threat to their mental well-being and putting them in danger of drug abuse.¹⁶ A study conducted by Dragun, R.; et al. concluded that there is a change in dietary habits, sleep, physical activity, patterns are which is disturbing the HRQoL.¹⁷

2.2. School closure during covid-19 pandemic

School closure for a uncertain period of time has a significant impact among the children. As most educational institutions are opting for virtual teaching methods, school going children who did not have access to technology such as mobile phones, laptops, computers or high internet connectivity were deprived from their learning. The school is considered to be one of the biggest platforms where children of same age group share their thoughts and ideas which enhance their intellectual capacity apart from scholastic learning. The shutdown is disturbing their psychological well-being such as there may be feeling of anger, guilt, sadness, frustration which is ultimately restricting the normal development of a healthy mind. Trying to overcome these issues is affecting their mental health.

A study conducted by Lee J highlighted that as schools are closed, some lock themselves up inside their rooms for weeks, refusing to take showers, eat, or leave their beds." For some children with depression, there will be considerable difficulties adjusting back to normal life when school resumes.¹⁸ Another study reported that 98% of the children were desperate to come back to school again, clearly indicating the mental anxiety staying at home.¹⁹ Xie et al. found out those symptoms of depression and anxiety among students in Hubei province, China, during the COVID-19 school closures through an online crowdsourcing platform. Out of 2330 students, 1784 agreed to participate (1012 boys, 56.7%). A total of 22.6% of students reported depressive symptoms, while 18.9% reported anxiety symptoms. They concluded that serious infectious diseases, such as COVID-19, may cause mental health problems in children and that more studies are needed on this issue.²⁰

2.3. Physical separation

Due to the prevailing crisis children are experiencing physical separation from their peer, play mates, extended family members exposing them to feel socially isolated and lonely. Social isolation can enhance loneliness and abandonment, triggering adverse behavioral relationships (i.e., aggressiveness, crying, emotional pain, etc.)²¹ Also, it is seen that the parents are infected with corona virus which made them quarantined. In these cases too children suffer emotionally as they are separated from their most loving ones. A feeling of separation anxiety bottle up within them. The rapid rise in the number of infected cases with daily increasing deaths along with fear of contracting the infection have created another havoc of uncertain worries and anxiety among the children.

A study conducted by Liu JJ et al. highlighted that separation from parents during childhood also has long term adverse effects on mental health, including a higher risk of developing mood disorders and psychosis, and death by suicidal in adulthood.²²

2.4. Web addiction

Millions of children are at increased risk of harm as their lives move increasingly online during this pandemic. The corona virus pandemic has led to an unprecedented rise in screen time,” said by Executive Director Dr. Howard Taylor. “School closures and strict containment measures mean more and more families are relying on technology and digital solutions to keep children learning, entertained and connected to the surface world, but not all children have the necessary knowledge, skills and resources to keep themselves safe online.”²³ The prolonged lockdown due to Covid-19 pandemic has increased the screen time of various digital devices of around 90 per cent children especially within the urban areas that posed health risks to the growing kids. Evidence suggest that chronic sensory stimulation via excessive exposure to screen time may affect brain development in negative ways²⁴ As there is lack of outdoor activities where the children are confined at home they make the Excessive use of Smartphone or any other electronic gadgets which increases the risk of emotional and behavioral problems. Also, prolonged use of social media makes children much expose to the possibility of cyber bullying, online risk-taking behavior which may have potentially harmful effect. A study conducted by Dong H et al. concluded that internet use is mainly influenced by the COVID-19 epidemic in various ways, including frequency and duration of recreational Internet use, and the rate of stay-up use. This study discovered that the frequency and duration of recreational electronic devices use, the frequency of electronic devices use after 00:00, and the self-score of addiction to electronic products were all significantly higher than those before the epidemic in all the

groups.²⁵

2.5. Child abuse and domestic violence

Reports of child abuse, neglect, exploitation and domestic violence are on horrendous rise at the time of COVID-19 pandemic and lockdown. Existing tension within members of the household are more likely to arise, potentially elevating dangerous situations. One such stressor is increased exposure to overcrowding—a stressor that disproportionately affects youth living in poverty.²⁶ A study reported that increased rates of abuse and exploitation of children have occurred during previous public health emergencies. School closures during the outbreak of Ebola virus disease in West Africa from 2014 to 2016, for instance, contributed to spikes in child labor, neglect, sexual assault and teenage pregnancies.²⁷ The Deputy Director of ‘*CHILDLINE 1098*’ India, announced that India saw a 50 per cent increase in the calls received on helpline for children since the lockdown began reported by Deputy Director of ‘*CHILDLINE 1098*’ India.²⁸ Children who become victims of physical abuse, which can lead to all sorts of problems in their personality development years. Short-term effects of domestic violence on children include fear, anxiety, and reacting anxiously. Long term effects of violence on children include: Becoming an abuser or bully within the later stages of their lives is known as repeating the cycle, Entering into abusive relationships with others and becoming abusers themselves, Children who witness or are victims of emotional, physical, or sexual abuse are at a higher risk of developing health problems as adults.²⁹ Children whose parents are divorced/separated or incarcerated or parents who have mental/chronic physical health problems are more vulnerable to abuse. Staying home may make these children more prone to undergo further mistreatment, neglect, child maltreatment, gender-based violence and exploitation.²¹

2.6. Children with disabilities

even in the absence of a global threat, children with disabilities are considered the world’s most vulnerable group. The current pandemic has disrupted life in every part of the globe will obviously affect those children with preexisting problems. Children with existing mental health functioning difficulties might be particularly affected by disruptions to services, isolation, and possible exacerbation of symptoms in response to pandemic-related information and behaviors. Quarantine constrains and overall burden faced by families might also place children with disabilities at increased risk for discrimination and of being exposed to violent discipline methods in the household.³⁰ Disability ranged from mild to severe and can be associated with a need for partial or total assistance with the performance of personal care activities such as bathing, dining, and

toileting. The functional impact of disability can be mitigated through environmental accommodations (e.g., curb cuts, ramps, elevators) and supports or the elimination of environmental barriers. A child with disability will be stigmatized; he will be discriminated if he get infected with COVID 19. The child as well as the care taker has to face another difficult time for being a COVID-19 victim and a mentally challenged child. Both of the coexisting morbidities will antagonize management of the other and lead to less efficient treatment.³¹

3. Psychological Intervention for Children's Mental Health and Wellbeing

Along with the physical health, it is also very important to take utmost care of mental health of the children. Children may present psychological distress in various ways. Understanding the children's emotional needs is a prime task. Parents and caretakers must acknowledge them with empathy as they are protecting the future adults of this country. Parents play the utmost important role in mental health outcomes of children during the pandemic. The presence of supportive and caring parents can be protective against mental distress. Honig AS stated that Stable, supportive, and nurturing caregiver relationship offer young children fostering trust, positive social-emotional development, and the capacity to form a secure and strong relationship in the future.³² This digital era children receive many information which may not be true. Parents must not allow the children to receive any fake news and misinformation on the situation. They should improve their communication; also they should talk what is happening in the world in a positive way. The parent-child communication should be in such a way that it helps to decrease fear, worry and frustration related to the pandemic outbreak.

A daily routine should be set for all activities that the children will likely to perform example wake up and sleep schedule, engage them in storytelling. Build a habit of reading books according to age. Parents can also involve the children in painting, drawing, and any other activities such as singing, dancing, reciting a poem. Help them to utilize their hobbies. This enhances positive parenting. Through a systemic review Shah K et al highlighted that children are prone to observe parents' and family members' moods during quarantine, which the children react to. Through positive parenting, parents, guardians, and family members can create consistent daily routines to avoid the distress of unstructured days.³³

Social media could play an important role in alleviating boredom for the children. Positive use of social media could be encouraged under supervision. Video chat can be encouraged. Video chat helps young children—even babies—remember and build relationships with family members and other caregivers.²¹ Maintaining social

relations and friendship is also a constructive way of keeping the children mentally happy. Children need to stay connected with family and friends. Parents and caretakers should allow them to have telephonic chat, video chat occasionally.

A review highlighted that there is a need for social support and early psychological and psychiatric assistance for children, parents, and caregivers feeling distressed during these pandemics. If convenient open-air physical activities should be kept to preserve mental health and psychological wellbeing. Daily routine and the more rigorous time to go to bed might help with the organization. Social media and online games might be a useful tool to allow some socialization with peers. As a society, we must be aware of the vulnerabilities to minimize their effects, especially poverty, food insecurity, and domestic violence risks.³⁴ Literature suggests that children often display their worries in ways that caregivers may interpret as defiant behavior.¹⁷ Parents should be provided with information that if they see their children is too much preoccupied with the ongoing pandemic outbreak, verbalizes persistently negative thought and fear; they should consult mental health personnel.

UNICEF, India emphasis certain points to deal with stressful event of children for parents and caretakers. Children should be given opportunities to talk about what they are feeling. Encourage them to share concerns and ask questions. Using simple tools to comfort and calm children can help them, for e.g. telling stories, singing with them and playing games. Praise them frequently for their strengths, such as showing courage, compassion and helpfulness. Reassurance should be provided to the children that their parents are prepared to keep them safe. Provide children with correct information through valid sources only.³⁵ They may suffer from intense anxiety, frustration, guilt and a feeling of helplessness and hopelessness as they are having less or no control on their day-to-day activities. They may feel burdened to their caretakers or even to themselves because of their physical or intellectual limitations. They also need little more love and reassurance, with detailed explanation about the pandemic outbreak as per their intellectual. Again, parents should not lose patience and communicate to them without a judgmental attitude. Help them to utilize their capacities and enhance their mental well-being.

4. Conclusion

The COVID-19 outbreak brought various change in children's routine life. As this is their transaction period, parents and caregivers should focus on eliminating their negative views and ensure that they maintain healthy habits which will foster the development of a healthy mind. Preserving health and managing stress is of prime importance. Going through this tough time children's will

obviously learn various aspects of life. Parenting is never easy but with this pandemic it is becoming extra challenging but with obvious patience and proper guidance, the mental health of tomorrow's future can be preserved to its highest level of functioning.

5. Source of Funding

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6. Conflict of Interest

None.

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