

Psychosocial Impact of the COVID-19 Pandemic on the Pediatric Population: An Implication for Clinical Practice

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ABSTRACT

The current article briefly reviews the factors that contributed toward risk and resilience experienced by children and families during the pandemic of coronavirus disease-2019 with a focus on the child's behavior and emotional adjustment. The widespread closures of schools for an indefinite period led to a huge slide in academic learning of children at the local and global level, especially from low-income families. Increased time spent indoors, lack of peer interaction and learning remotely on electronic devices led to an exponential increase in time spent using technology and screens, decrease in physical activity, unhealthy eating habits and routines, and poor-quality sleep among children and adolescents during the pandemic. Increase in loneliness was documented in several studies and since loneliness is inextricably linked to mental health outcomes such as increased depression and anxiety these negative emotions are a matter of concern for child health professionals. Several governmental policies and remedial actions were initiated in the education, economic, and social sectors to support the developmental needs of children and pave the way forward. On the positive side, the stay-at-home mandate provided some families a unique opportunity to positively connect, engage in shared family activities, discover new strengths, and develop their interests. The real influence of the pandemic may well extend beyond the infection and profoundly impact children's overall development and quality of life. Effective preventive supports and prioritized targeted measures are therefore needed to ensure the subjective well-being of children during and after the pandemic.

Keywords: Children, Emotional and behavioral functioning, Pandemic, Post-traumatic growth.

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INTRODUCTION

Coronavirus disease-2019 (COVID-19) pandemic has seriously disrupted the daily lives of the people globally since its outbreak and India has been one of the seriously affected countries. The Indian government acted speedily and imposed a complete nationwide lockdown including home confinement, prohibition of public gatherings, ban on the use of public transport, shutting down of all educational institutions, and non-essential businesses. The complete lockdown was followed by several partial lockdowns, quarantine measures, social isolation, and public restrictions leading to fear of infection, uncertainty, increased loneliness, and increased mental health problems for both children and their families.¹ Families have been particularly affected by the government's prescribed restrictive measures to mitigate the transmission of the contagion. Parental responsibilities increased tremendously as children had to be taken care of, kept engaged for the entire day, and online school work supervised for school-going children. The accumulation of childcare responsibilities for a protracted period increased parenting stress and child-parent relationship conflict.²⁻⁴ Children and families faced several potential stressors during the pandemic (Table 1). The short- and long-term consequences of these psychosocial stressors are not fully understood yet and in India remain relatively unexplored. The current article briefly reviews the factors that contributed toward risk and resilience experienced by children and families during this time of uncertainty and change, with a focus on the child's behavior and emotional adjustment.

Impact of School Closures on Children and Families

The widespread closures of schools for an indefinite period have impacted the lives of millions of children and their families at the global level.⁵ A UNESCO report woefully predicts that nearly

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100 million children will fall below the minimum proficiency level in reading as a result of the pandemic.⁶ The recently conducted "School Children's Online and Offline Learning" (SCHOOL) survey of nearly 1,400 underprivileged schoolchildren from 14 states and one union territory of India revealed that 92% of the sampled children were not studying regularly during the pandemic and the downward slide was so profoundly marked that only about half were able to read more than a few words.⁷ The online remote school teaching that was initiated during the pandemic caught most educators and students by surprise and lack of access to smartphones and internet connection resulted in a vast majority of Indian students, especially from rural and disadvantaged homes, being unable to access education during these unprecedented times.⁸ Moreover, the absence of training and capacity building for teachers to deliver education via the remote platform by the educational institutions contributed to poor learning outcomes. Working parents, especially with young children in nuclear households, faced immense challenges in managing the online learning of their children and had to rely on the help of either extended family members or older siblings. This educational disruption and huge slide in

Table 1: Potential stressors during COVID-19 for children and adolescents

- Increased social isolation and loneliness due to school closures and COVID-related restrictions
- Disruption in daily routines and sleep disturbances
- Anxieties and fears related to contracting the infection
- Increased stress among parents associated with work and child care demands including online school
- Limited access to social activities such as sports, social interaction, and extracurricular activities
- Increase in family conflict, child maltreatment, and child abuse
- Demands of virtual schooling
- Increase in sedentary behaviors and time spent on digital screens
- Increase in consumption of unhealthy foods and decrease in physical activity
- Reduced access to healthcare services

academic learning at the local and global level is predicted to result in serious ramifications for the educational future of children, especially from low-income families, and is likely to further entrench the existing economic, social, and health inequities.

It is important to recognize that schools not only impart academic instruction but are also crucial for teaching social-emotional skills, promoting physical and moral development, ensuring healthy daily routines that safeguard against developing physical and mental health problems. Disadvantaged children are also reliant on school meals as a key source of their daily nourishment and the abrupt and extended cessation of free meals due to lockdown are sure to impact the nutritional status of millions of children dependent on these meals. India may well be heading toward a malnutrition crisis since stunting and wasting rates are already very high, especially among the vulnerable groups.⁹ A recent study paints a grim picture and predicts that the nutritional shock caused by school closures will lead to a conservative estimate of an increase in the rates of underweight and wasting by 1.42% and 1.36%, respectively, and add nearly 4 lakh additional cases to the already very high figures of malnutrition in India.¹⁰ It is a well-known fact that adequate nutrition is crucial for enhancing brain function¹¹ and the swelling nutritional deficiencies among young children could potentially seriously hamper their neuro-cognitive development.

School meals also serve as a strong enticement for children from marginalized communities, particularly girls, to enroll in schools. The longer the schools remain closed, the greater the risk that many children will permanently dropout from the education system. The school dropouts are projected to increase dramatically in India and along with the potential learning loss are indeed worrisome and threaten to roll back decades of the remarkable progress made in the education sector in increasing literacy and enrolment rates in the country. It is envisaged that nearly one-third of the children enrolled in the government schools serving the underprivileged groups may not return to mainstream schooling.⁸ Indeed, the usefulness of school closure has recently been actively debated and many policymakers have suggested alternative mechanisms to contain the transmission of infection among children in lieu of complete closure, such as physical distancing, masking, staggering, and reducing class size.^{12,13}

Emotional and Behavioral Functioning of Children during the Pandemic

An increasing body of recent research suggests that the fears of contracting the infection among families, forced isolation, home confinement, and marked disruption to daily household routines have increased caregiver burden and heralded profound changes in children's emotional states and behaviors.^{2,14-16} In a recent meta-analysis, that examined nearly 23,000 children and adolescents (15 research studies) during the COVID-19 outbreak found that 80% were negatively impacted by the pandemic and reported feeling fearful, sleep disturbed, and bored. Moreover, nearly one-third reported feeling anxious, depressed, and irritable.¹⁷ A study from the state of Punjab found that nearly three-fourths of the parents' reported increased irritability and nearly half reported anger among their children during the novel contagion outbreak. Indeed, housing characteristics and family financial resources are related to higher reported behavioral difficulties during the pandemic.^{18,19} For example, a study from Germany that utilized an online questionnaire completed by parents of 3-10 years old children found that those living in houses with large gardens and apartments with balconies were less likely to experience externalizing behaviors, particularly hyperactivity and conduct problems.¹⁸ Younger children (less than 7 years) were particularly impacted during these challenging times and research indicated increased clinginess, fears, worries, boredom, and attention-seeking behaviors.¹⁸ Loneliness too increased during social isolation period and a significant proportion of adolescents reported high levels during the lockdown.^{20,21} Most children (76%) missed social interactions and expressed a desire for playing outdoors with their friends.¹⁸ Since loneliness is inextricably linked to mental health outcomes such as increased depression and anxiety these negative emotions are a matter of concern for child health professionals.

Increased time spent indoors, lack of peer interaction and learning remotely on electronic devices has led to an exponential increase in time spent using technology and screens, a decrease in physical activity, unhealthy eating habits and routines, and poor-quality sleep among children and adolescents during the pandemic.^{3,22-24} It has been speculated that household chaos experienced by families during the contagion may have especially exacerbated behavior difficulties, promoted a sedentary lifestyle, and excessive screen time even among preschoolers.²⁵ It is important to recognize that excessive screen time increases the likelihood of exposing children and adolescents to digital inappropriate content, sexual exploitation, or cyberbullying. Indeed, increased accessibility and pervasive use of social networking during the pandemic among youth has amplified their risk for cyber victimization.^{26,27} Health care professionals need to alert parents of children who are excessively using digital platforms for social interaction to the potential mental health risks associated with cyber victimization.

The prolonged exposure to screens and increased time spent indoors have disrupted the circadian rhythm and led to an increase in sleep disturbances such as difficulties in falling asleep, maintaining sleep, and nightmares among children.^{28,29} It has been speculated that children who are unable to assign meaning to traumatic events have difficulties in regulating their emotions and may display emotional overreactions and biased cognitive appraisal that may contribute to the pathogenesis of sleep problems.³⁰ In addition, children with preexisting mental health problems and neurodevelopment conditions such as autism, and attention-deficit/hyperactivity disorder (ADHD) may be

particularly at risk for sleep disturbances and hence may pose an additional burden on families struggling to deal with their children's special needs.²⁹

Increase in Child Maltreatment and Abuse during COVID-19

Since the usual child protective safeguards were severely weakened during the pandemic there has been an alarming surge in the number of child abuse cases reported across the globe.^{31,32} The Child line India Foundation, an emergency telephonic helpline service, reported a 50% increase in the phone calls during the lockdown, and 30% of these calls were related to protection from abuse.³³ Some of the primary risk factors associated with an increase in abuse when family members spend more time in close contact during stressful periods include overstrained caregivers resorting to violence and abuse due to economic hardships, unemployment, overcrowding, restricted mobility, and loss of external support networks. Additionally, the closure of schools increased the risk for abuse especially for children living in violent dysfunctional homes as they were isolated and stuck in the homes with their abusers.³⁴ Since public emergencies increase the risk of child maltreatment and abuse due to the disruption in protective and preventive services it is essential that policies be framed that help in reducing stress in families during crisis periods to prevent needless psychological trauma to children. Moreover, since child abuse is generally underdetected and underreported there is a need to scale up the child protective efforts by alerting the safeguarding agencies to be extra vigilant and report potential abuse cases at the earliest.

Promoting Resilience during Periods of Crises

It is important to recognize that there is considerable variability in how families cope with stress based on their preexisting risk factors and vulnerabilities. Recent research has gathered preliminary support that protective factors such as nurturing care by families and social connectedness with peers and school teachers can help children and adolescents to adapt to distress and be resilient. Indeed, the stay-at-home mandate provided some families a unique opportunity to positively connect, engage in shared family activities, discover new strengths, and develop interests.³ Nearly 89% of 385 caregivers from Portugal and the UK identified positives during the pandemic including improved relationships, positive spiritual change, and a greater appreciation of life.³⁵ A study from the USA found that parents who reported spending more quality time with their children such as engaging in creative activities, teaching them household chores, listening, and talking reported that the parent-child relationship had been enhanced during the pandemic.¹⁹ Positive interactions with family members have been documented to act as a protective factor and help in promoting positive post-traumatic growth during times of crisis and disruption.³⁶⁻³⁸ Table 2 provides a few guidelines for reducing harm and fostering resilience among children during public health emergencies.

The Government of India has recently initiated several remedial measures to mitigate the impact of the pandemic on the learning, nutritional, and cognitive needs of the students. Some of these initiatives include delivering audio-visual academic content to children residing in households without internet access through radio and television. The state of Maharashtra has initiated bridge courses for all students of state schools to cover topics covered in the previous year's curriculum. The state of Odisha has started a government sponsored program to connect trainee teachers with

Table 2: Ways to promote resilience among children during the pandemic

- Parents/caregivers to engage in positive shared family activities with their children and foster a sense of safety and security
- Offering meaningful and age-appropriate information about the coronavirus.
- Providing emotional support by reassuring, establishing routines, and helping children regulate and manage their negative emotions
- Providing opportunities for engaging in positive social connections with friends, extended family, and community members
- Increasing the child's competencies by teaching skills and building on their interests/talents
- Ensuring a healthy balance of school work, exercise, leisure, social connectedness, use of electronic devices, and sleep
- Avoiding catastrophic forecasting and emphasizing that the current crisis is time-limited and manageable

out-of-school children in rural areas. In addition, a toll-free helpline, Manodarpan, has been started to address the socioemotional and psychological needs of the students through the National Council of Educational Research and Training (NCERT) trained counselors. The ministry of education has also developed an online module to track down out-of-school children and provide financial assistance to them (16–18 years) to continue their education through open/distance learning mode for the current academic year. The recently announced Pradhan Mantri Poshan Shakti Nirman scheme will cater to the nutritional needs of children by providing mid-day meals to students of classes one to eight in government, government-aided schools, and children of Balvatika.

CONCLUSION

The real influence of the pandemic may well extend beyond the infection and profoundly impact children's overall development, and quality of life. There is considerable evidence to support that pandemic-related physical and mental health risks will disproportionately influence children who are already marginalized and disadvantaged. Several governmental policies and remedial actions have been initiated in the education, economic, and social sectors to support the developmental needs of children and pave the way forward. This unexpectedly extended crisis has overarching public health implications and requires effective preventive supports and prioritized targeted measures to ensure the subjective well-being of children.

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