

# A DETAILED REVIEW OF IMPACT OF SARS 2 ON THE CHILDREN

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## **Abstract:**

*In Wuhan City (Hubei, China) in December 2019, an outbreak of 2019 coronavirus disease (COVID-19) occurred and spread quickly around the globe. The World Health Office (WHO) has announced a pandemic in the novel epidemic of the coronavirus on 11 March 2020. The Chinese Government has recommended that schools across Germany be closed to avoid the spread of the COVID-19 virus. Lockdown is one of the most commonly used methods in India to manage COVID-19 distribution. Children are deprived from social contact and association in lock-down conditions and are thus vulnerable to mental disorders. This current review therefore aimed at identifying the effect of COVID and lockdown on children<sup>1-3</sup>.*

**Keywords:** *Lockdown, COVID 19, Children, Pandemic*

## **BACKGROUND**

According to WHO, the number of children and young people living in national schools is over 1.5 billion, with up to 90% of the students worldwide (WHO, 2020b). COVID-19 has also put massive burdens on the mental health of the population, in addition to causing physical harm. The effects of epidemics in earlier studies has been documented to the general population, staff, healthcare professionals, collage students and older adults. However, there is little research into the effect on school-aged children of long-term quarantine<sup>4-6</sup>.

The high prevalence of behavioural disorders in children is a challenge for public health. American children had a current behavioural disorder for nearly 2,26 million 6–11 years in 2016. Epidemiological studies have found that children are especially vulnerable to pandemic behaviour disorders, including hyperactivity, problem behaviour, externalisation problems

and social depression in general. There are several risk factors, including environmental and family factors, which lead to the development of behavioural issues<sup>7-10</sup>. Children are less active, unhappy, and boring while they are limited to their bedrooms, unwilling, and without personal spaces to reach their peers, friends and teachers. The combined effect between improvements in lifestyle and psycho-social tension induced by household confines may make the adverse impact on behavioural health worse. It is crucial, therefore, that during this uncommon time children are more conscious of the possible behavioural consequences of school-aged children<sup>11-14</sup>. The outbreak of the COVID-19 pandemic (the World Health Organisation, which was very common in Italy) quickly forced the central and regional governments to implement very stringent and extreme containment policies that led to extended lock-downs, in order to deter the dissemination of the virus. It is common knowledge that extreme vision deficiency has a strong overall effect upon the growth of an infant, slowing the developmental milestones especially in the early years of life; Warner Richter & Lloyd found that developmental delays are the second form of childhood disorder in the US, which affect 37% of the children<sup>15-18</sup>.

## **EFFECT OF COVID ON CHILDREN**

Robert Hollman Foundation (RHF) is an independent, Netherlands-born non-profit organisation which has been active since 1979 in both its centres for outpatient and residential services for around 350 seriously disabled visually children (ages 0 – 14) per year, offered for the growth of children with a visual disability free advisory and assistance<sup>19-23</sup>. The treatment paths given to the children are designed not only to heal sickness, but also to take care of the entire child after his forming years and at the same time helping its caregivers. Of the baby, 76,2 percent are of an early age, an optimal time to begin a customised visual functionality rehabilitative initiative, given the relationship between postnatal and brain plasticity stages<sup>24-27</sup>.

Infants are not adult in terms of their clinical signs of SARS-CoV-2 infection. Older adults and those with co-orbidity such as asthma and diabetes have significantly greater risk of having COVID-19-associated ARDS with a high mortality. Children with COVID-19 rarely show serious air symptoms and frequently stay asymptomatic while adults report respiratory symptoms of different severity. Children have uncommon but significant clinical presentations of MIS-C, designated SARS-CoV-2 infection, with some inflammatory and

cardiovascular symptoms similar to Kawasaki disease and normally without extreme respiratory symptoms. In children with diverse clinical presentations, the essence of the immune response to SARS-CoV-2 ranges between asymptomatic and MIS-C in comparison to the most typical respiratory manifestations of COVID-19 in adults<sup>28-30</sup>.

The development of virus-specific antibodies neutralising or preventing infectivity is the greatest correlation of defensive immunity for different infections and vaccinations. In active infected patients and patients with mild diseases who have recovered, antibodies specific to major SARS-CoV-2 antigens, including the S protein which attaches the cellular receptor to viral entry and the N protein needed for viral replication have been detected. In specific, Anti-S antibodies can be neutral and currently used to treat patients during serious illness and to obtain targeted vaccinations in the form of therapeutic infusion<sup>31-33</sup>. The assessment of the essence of the antibody response as a mechanism of ageing and clinical syndrome for SARS-CoV-2 infection will provide important insights for enhanced surveillance and target safety for the continuing global population of this persistent pandemic.

## DISCUSSION

Natural catastrophe is an occurrence that can cause human life, economy and infrastructure to lose regionally or internationally. In general, these calamitous occurrences occur in three ways; (a) weather, (b) geophysical (or biological) and (c). The latter does not inflict any immediate damage to structures between these three natural disasters; however, its effects on human and economic lives remain for a long time. In general, such bioactive compounds, pathogenic microorganisms and biotoxins are responsible for biological disasters<sup>34-37</sup>. The threats linked to biological hazards primarily rely on certain microorganism characteristics: number of organisms, number of species affected, mortality rate and mode of transmission. Different prevention steps to deter and reduce the effects of a biological tragedy are being introduced in society on the basis of the magnitude of the biological catastrophe<sup>38-40</sup>.

Locking is one of the key measures to get the reproductive ratios of the microorganism down to <1 in case of outbreak and pandemic circumstances caused by such transmissible diseases. As a result of the spread of SARS in, for example, many regions in China and Canada were locked in in 2003. The Ebola virus has infected a wide region of Africa, resulting in the lock-

down of many cities in West Africa. Therefore nearly all affectable countries have now declared a thorough lockdown at an extraordinary point as COVID-19 triggered a pandemic<sup>41-44</sup> in the world The Indian authorities have declared a full national lock-up in the country on 22 March 2020. These steps have a very abrupt and unforeseen effect on the usual lifestyles of Indian people. Such an unpredictable state of affairs has led to anxiety among the elderly, adults, youth and children of all ages. People of India are therefore likely to suffer disturbed moods, including depression, sleeplessness and anxiety, since they actually live under lockdown<sup>45-48</sup>.

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