

# Perspective of COVID-19 on children and teenagers: An update

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The coronavirus 2019 (COVID-19) pandemic has caused a global public disaster on all aspects of daily life activities including social, economic, and health.<sup>[1]</sup> The disaster of COVID-19 is still continues as new variants are continuously being discovered. The latest variant omicron (B.1.1.529) was detected in South Africa on November 24, 2021, and the WHO reacted very quickly to it and announced it's a variant of concern on November 26, 2021.<sup>[2]</sup> So far, studies on omicron suggested that this variant has more than 50 mutations, some of them are expected to be very concerning. Available evidence till November 28, 2021, indicated that the potential infection rate with this variant is more as compared with the other variants of concern.<sup>[3]</sup> The omicron infected cases are spreading very fast in the globe as within 2 or 3 days the number of cases infected with this variant multiplied by several folds in overall South Africa and also have been found in the Netherlands, Belgium, Denmark, Botswana, Hong Kong, Australia, and Israel, and now, several countries are planning to impose travel restrictions again.<sup>[2]</sup> All these alarming indications give a clear warning for all of us that the pandemic is still on and this has reminded us that we must take all preventive measures seriously to reduce the risk of COVID-19 transmission such as wearing high-quality face covering, personal hygiene, social distancing, promote ventilation in indoor building, avoid crowding, and most importantly getting vaccinated.<sup>[2]</sup>

The COVID-19 pandemic affects individuals of all ages, all individuals experience the catastrophe and its associated constraint divergently. Children and teenagers of all ages also face different challenges and restrictions associated with COVID-19, which markedly impact their routine activities.<sup>[4-6]</sup> Due to decrease of outdoor activities or increase of screening time at home, children and teenagers of all age groups experience a number of health problems including depression, anxiety, ocular ill health, and myopia, the harmful effects of this universal crisis in few children and teenagers will be lifelong.<sup>[4-6]</sup> In general, children and teenagers are at low risk of COVID-19 as far as the current knowledge suggested.<sup>[7,8]</sup> However, reports also showed that children and teenagers of

all ages are equally susceptible to be infected but the infection rate is mostly likely to be mild.<sup>[7,8]</sup> In flip side, several reports showed that children and teenagers of all ages not only been severely infected with the virus but also few had died.<sup>[7,9]</sup> Experts from reputed institutions are expecting that the children who are not eligible for vaccination are still at high risk as the whole world is now planning to unlock or already opened the education systems.<sup>[10,11]</sup> The WHO/Europe reacted positively to handle the disproportionate impact on health and well-being of children of school-going ages as the pandemic has caused the largest breakdown of education systems in history, which affected over 2 billion students from all over the globe.<sup>[12]</sup> A recent survey conducted by the WHO on health services affected by COVID-19, all countries unanimously reported that their health services have been severely affected, particularly the services associated with children health care system such as children routine immunization and utilities operating at the primary health centers.<sup>[12]</sup> The output of the survey clearly concluded that children and teenagers of all ages living in vulnerable conditions are still continuing to be affected and are going to face a number of challenges.<sup>[12]</sup> In this regard, the WHO/Europe put extraordinary efforts for the improvement of social and health services of children by engaging technical advisory groups in all over the European nations which have positively impacted on the quality of children's health care including safe schooling during COVID-19 pandemic.<sup>[9]</sup>

Recently, the WHO published an excellent briefing on COVID-19 in children and adolescents,<sup>[13]</sup> according to it, children and young teenagers are not only susceptible to viral infection but are also fully capable of transmission of COVID-19 infection to others. Moreover, the WHO reports also pointed out that the risk of viral transmission among young children is less as compared to older children and teenagers.<sup>[13]</sup> The control of viral transmission among children or children to others can be controlled by analyzing the extent of community transmission and to analyze the type of circulating variant but further studies are sought to determine an exact role of overall viral transmission in children.<sup>[13]</sup> According to the

current knowledge, all discovered SARS-CoV-2 variants present mild symptoms in children and teenagers.<sup>[14]</sup> However, studies on recently discovered variants delta and omicron are required to control the community based viral transmission among children and teenagers. The WHO further pledged to all of us, particularly targeted parents, teachers, school staff, health professionals to follow all major and minor preventive measures including social distancing, face covering, hand cleaning, coughing into tissues or in bent elbow, promote ventilation in indoor buildings, and get vaccinated. All these biosafety practices should be applied consistently in schools, colleges, and universities, especially in those primary institutions where children are still not eligible for vaccination.

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