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### Original Research

### Impact of Covid-19 on Adolescents around the Globe

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#### ABSTRACT:

Adolescence is the most formative stage in the life of any human. As a result, adolescents are at an increased risk of developing mental health disorders. Even before the pandemic, the global incidence of mental health problems in the young teenage population rapidly increased. COVID-19 led to disruption in the lifestyle of adolescents, and identifying mental health problems and implementing timely interventions can reduce detrimental effects on adolescents' mental health.COVID-19 substantially impacted adolescents' mental health, and some studies report depression as high as 43.7%. This article describes the positive and negative effects of COVID-19 on adolescent mental health. Additionally, non-pharmacological interventions to help adolescents cope with the restrictions of COVID-19 were reviewed.

Keywords: adolescent, youth, mental health, COVID-19, anxiety

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### INTRODUCTION

Adolescence(10-19 years) is a distinct and formative period in one's life. Adolescents can become vulnerable to mental health issues as a result of physical, emotional, and social changes, such as poverty, abuse, or violence[1]. There is a global concern about the rising prevalence of mental health issues among adolescents[2]. It is estimated that 1 in 7 (14%) 10-19 year-olds suffer from mental health conditions, yet these go largely unnoticed and untreated[1].

On March 11, 2020, the World Health Organization (WHO) designated the COVID-19 novel coronavirus to outbreak a global pandemic[3]. Because of its spread, social distancing measures were implemented by countries worldwide. The virus threatened to cause a sudden rise in severely ill patients. This prompted the governments to take strict actions, and at its peak, schools in over 188 nations, representing about 91% of all enrolled students globally, were closed.[4]. These restrictions were meant to ensure the

safety of the citizens and prevent the virus from spreading faster than the existing health systems could handle. But social isolation and school closures worsen children's and teenagers' mental health issues; they are already more likely to experience mental impacts health related to their developmental stage, fear of infection, home confinement, suspension of regular school and extracurricular activities, physical distancing mandates, and more significant scale threats such as global financial recessions associated impacts[**5,6**]. Because adolescents lack psychological resources for resilience and coping, as well as the physiological development of adults, the mental toll of this impact presents a more significant challenge for them [7].

As a result of staying isolated and socially disconnected, young adolescents(13-17 years), who are often in the formative years of their social development, were adversely affected, and children and teenagers showed a high prevalence of COVID-

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19-related fear as well as more depressive and anxious when compared to pre-pandemic estimates[6]. Adolescents may experience a variety of stressors as a result of these COVID preventive measures, including boredom, excessive media consumption, loss of educational opportunities, loss of daily structure, reduced social contacts, and reduced opportunities for play, physical activity, and hobbies. Adolescents were found to have a higher incidence of emotional symptoms, as reported in a German study Strength Difficulties using the and Questionnaire(SDQ)[8]. There may also be an increase in the risk of family disputes. New stressors even emerged for parents ("caregivers") that affected their own and their children's mental health [9]. Students who rely on special education, lack digital access or tools, or live in unstable home settings risk falling behind their (peers) as schools move online[6]. COVID-19 gave rise to several consequences, positive and negative, because of the institutional mitigation measures and changes in social and home environments, ultimately affecting the mental health of young adolescents. It is essential to study the longlasting effects of COVID-19 on mental health because the severe impact on mental health results in poor mental health outcomes and poor physical health outcomes, such as the onset of cardiovascular diseases[7]. In this article, we will highlight the impact of covid-19 on adolescent mental health.

## POSITIVE IMPACT OF COVID-19 ON MENTAL HEALTH

The COVID-19 pandemic forced school closures all over the world, forcing school systems and students to try remote learning. During the early stages of the confinement COVID-19 pandemic, measures mitigated a number of anxiety factors, including a stressful school environment [10]. As opposed to the restrictions on movement, COVID-19 allowed adolescents more freedom, and they had more time available during the day to be productive. Despite fears that it would lead to disorganized routines, a study of 1500 students in Ecuador found that most students formed daily routines around the new normal and were happy[11]. COVID-19 has also been linked to increased family time, decreased daily stress, and a reduction in sensory stimulation. Along with these, family, environmental, and lifestyle changes are linked to a decrease in child and adolescent mental illness symptoms and an improvement in wellbeing[12,13]. Moreover, during the COVID-19 pandemic, more than 40% of their teen and early adult sample reported improved social relationships, greater self-reflection, and greater self-care.[14] As a result of the school closures, the incidence of bullying dropped as there was limited scope for peer conflict. With software-based solutions, adolescents could engage in networking opportunities in virtual social lounges in the form of breakout rooms. In the midst of the pandemic crisis, university students have used their

digital skills to empower their professional training, despite being exposed to stressors such as reduced academic relationships and restrictive measures. [15]. The health crisis also encouraged the use of online consultations and other alternative forms of care. While this may have limited access to care for those who are less fortunate, it may have made it easier for others, including suicidal adolescents [16]. Apart from education, adolescents had more opportunities to engage in recreational activities at home and in open public places. According to our findings, children and adolescents perceived home quarantine as more positive than negative, resulting in less psychological distress and greater life satisfaction. Their perceived advantages of home quarantine included more time to spend with their parents and on personal activities. [17] This beneficial discovery is defined as "the positive effects of a traumatic event." [18]. Although anxiety-depressive symptoms and loss of family income were linked to increased substance use in the context of the health crisis. Confinement appears to have played a protective role, which was most likely mediated by limited access to the substances [19-21]. According to a study conducted by KellyAnn Allen et al., adolescents can maintain their growth by using constructive coping strategies such as emotional processing, positive reappraisal, and belonging. It was also discovered that social support in the form of Strength-based parenting was a significant factor in assisting high school students in growing through their stress [22]. Parenting plays a considerable role in developing behaviors and adolescents' mental health, but there is limited evidence on the most effective way to measure parentchild discussion qualitatively. This warrants future prospective studies on the role of parent-child discussion on adolescents' mental health during a pandemic.

# NEGATIVE IMPACT OF COVID-19 ON MENTAL HEALTH

The first pandemic wave was primarily associated with an increase in adolescent anxiety, depression, and eating disorders. Many countries reported an increase in suicidal ideation and attempts among adolescents during the pandemic's second and later waves[23]. The COVID-19 pandemic and lockdown have also had a significant impact on the global economy, resulting in substantial job losses [24]. Economic downturns are well-known for being associated with an increase in domestic violence [25]. Social isolation and feelings of loneliness in children and adolescents can lead to the development of anxiety and depression symptoms [26]. The prevalence of anxiety among adolescents ranged from 19% to 64%. There is also recent evidence of mediating the role of anxiety in the development of depression and COVID-19[27]. Studies also reported an increase in suicides and a reduction in access to the Psychiatric Emergency Department. Depression in

adolescents showed a steep rise where most studies revealed prevalence between 22.3% and 43.7% [28]. Strict, inflexible dietary behaviors with a limited range of foods may have been influenced by market supply constraints. [29]. The promotion of a thin ideal and the stigmatization of overweight people may have tightened self-image control [30,31]. Thus, lockdown conditions may exacerbate negative affectivity and comorbid conditions in eating disorder patients. Adolescents with mental health problems were significantly more negatively affected by the lockdown in terms of wellbeing than adolescents in the general population [14]. The mitigation measures enacted to limit COVID-19 affected the lifestyle of adolescents. Most young adolescents are school-going students, and their immediate social circle comprises family, friends, and teachers. The restrictions of social distancing led them to be confined to the home and, quite often, a sedentary lifestyle. There have also been closures of social participation and physical activity areas, including gyms, outdoor sports arenas, and playgrounds [32]. A study of 35,915 participants in the UK revealed a significant reduction in physical activity in almost 29% of the population due to COVID-19[33]. The lockdown also encouraged students to use the internet and screens, which were necessary for them to continue their education and maintain contact with peers while imprisoned [34]. However, excessive screen use, particularly at night, has been linked to adverse outcomes such as disrupted sleep rhythms [35]. Adolescents increasingly started spending more time on social media to cope with the loss of social interactions. Some studies show that its use has risen to 5-10 hours in young adolescents. Although this meant they were more active with peers online, much of this interaction is passive and leads to a state of ill-being, including mental health disorders like depression and anxiety, mood states, eating disorders, fear of missing out, and rumination. Exposure to news stories and information about COVID-19 may stress adolescents more. A metaanalysis revealed that the use of social media was correlated to the state of ill-being. [36] Hence, the use of social media to cope with social deprivation is questionable. The continuity of homeschooling was a significant challenge for adolescents and their families during the lockdown period, and it may have contributed to the reinforcement of preexisting inequalities such as a lack of appropriate equipment and internet [37]. This leads to an academic decline in the lives of some students. The effects of social deprivation have been well studied, and mental health is essential as children make important decisions about their long-term goals during this time. [38] Although confinement at home means spending more time with family, there has been a steep rise in mistreatment and domestic violence by 12% against and adolescents during lockdowns. [39]Furthermore, seeking help was complicated, and many such cases have been left unreported due to the

isolation. [40] Hence, indirectly COVID-19 has had a negative effect on youth development.

#### **INTERVENTIONS**

There is no single answer to the mental health problems adolescents face during this never-ending but providing education and resources about mental health illness, creating a safe environment where children can discuss their issues, encouraging physical activities, organizing outdoor events, limiting screen time, avoiding day time naps and creating hygiene, and most importantly validating their concerns and fears are some of the methods which can assist in decreasing anxiety and depression in the adolescents [41]. These are called 'positive coping strategies,' which focus on actively reducing stress. Another strategy that has been studied widely to deal with any kind of stress is the social support system. An individual receives social support from the people around them, like family members, friends, and the community in general [42]. A survey of 7,202 adolescents aged 14-18 years during the pandemic demonstrated that anxiety and depression were more prevalent in those with a low and medium social support levels [43]. Studies have also indicated increased social media usage in depressed and anxious adolescents during the covid-19 pandemic. Increased screen time and using social media as a source of humor rather than a source of Coronavirus facts have been shown to improve feelings of sadness in children and is an essential constructive coping mechanism [44]. There is also an increased interest in developing digital solutions aimed at psychotherapy as young adolescents are more familiar with devices. [45]. With the possibility of high-speed internet and streaming services available to anyone in the world, many online and application-based virtual solutions have been investigated to mitigate the effects of isolation due to COVID-19. Encouraging video calls with family and friends is one of the ways connectedness can be improved. The use cognitive behavioral therapy (CBT) for treating depression and anxiety and dealing with stressors is well known and delivery of cognitive behavioral therapy (CBT) digitally by using a chatbot showed a significant decrease in depression score and a shift from moderate to mild depression in adolescents in the treatment group as compared to those in the control group [46]. Two randomized clinical trials revealed the utility of single-session interventions and CBT (cognitive behavioral therapy) in adolescents during COVID-19. The sessions were conducted online and showed benefits for depressive symptoms. [47,48] Covid-19 saw one of the worst economic shakedowns occur, and the effects of financial losses were also seen in adolescents. A study done in India highlighted how the fear of financial losses and future uncertainty suffered by their parents made children anxious and depressed. The inadequate supply of food and other basic needs also added additional stress [49]. A

preemptive social preparedness and providing financial, healthcare, and basic needs support to families by the government can help adolescents [50]. There is no one holy grail treatment available for the psychological trauma people faced during the pandemic, however, implementing some of the strategies discussed above often prove to be preventive and reduce the need to start drug therapy and work on different aspects of physical and mental health, by improving self-esteem, providing emotional and social support, or any combination of these.

#### **CONCLUSION**

There is a plethora of evidence related to the effect of COVID-19 restrictions on the mental health of young adolescents. The young people have experienced increased levels of anxiety, depression, and stress due to social isolation, disrupted education, and economic uncertainty caused by the pandemic. The closure of schools and cancellation of extracurricular activities has had a profound impact on adolescents' mental health, as many young people rely on these activities for socialization and support. The pandemic has also exacerbated pre-existing mental health issues, with many adolescents struggling to access mental health services due to lockdowns and reduced in-person services. Overall, the pandemic's impact on adolescents' mental health is significant and longlasting, highlighting the need for increased support and resources for young people during and after the pandemic. Encouraging social activities, fostering self-care, providing assurance and support, validating fear, adopting interesting and new hobbies, and refraining from watching the negative news are some of the measures that have been shown to reduce psychological stress in adolescents during the pandemic. Future prospective studies and clinical trials are warranted to explore the potential preventive and therapeutic options available and readily accessible to young adolescents during social restrictions in a pandemic.

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