

Effects and Causes of COVID-19 Quarantine on Adolescent Mental Health

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ABSTRACT

COVID-19, the illness caused by the novel coronavirus SARS-CoV2, lead to major disruptions in the daily lives of youth around the world. The purpose of this article is to provide an updated review of the current body of research findings to date on the specific impacts of COVID-19 on the mental health functioning of adolescents in the United States. Original peer-reviewed studies examining mental health outcomes in the general population of children and adolescents during COVID-19 were identified through search engines and publications. Many of the studies were cross-sectional and not longitudinal so they did not compare youth mental health pre-pandemic to post-pandemic. A synthesis of the results of existing studies suggested that adolescent mental health deteriorated after the onset of the COVID-19 pandemic and the associated social distancing measures. Yet, the extent of such effect is still a question worth investigation.

Introduction

The Coronavirus Disease 2019 (COVID-19) pandemic caused by the SARS-CoV-2 virus has caused serious disruptions and alterations in social norms and public health around the world (WHO, 2022). The quarantine caused mandatory online classes for students, and growing concerns about social isolation combined with the lack of support services and chances to engage in physical activities have raised questions about potential short-term and long-term impacts on adolescent mental health (Wright et al, 2021). As various studies have shown, the COVID-19 quarantine lead to negative mental health consequences in adults including PTSD, anxiety, and depression (Wright et al, 2021). Thus, the fear of contagion and other social factors created a hotbed for the emergence of new mental disorders or worsening of previous ones for adolescents. Indeed, some studies conducted early on in the COVID-19 pandemic suggested that youth mental health worsened after the onset of the pandemic (Powder, 2021). However, the impact of the COVID-19 pandemic on youth mental health across the time period since the pandemic began, which now spans nearly three years, has remained unclear. There have recently been numerous empirical studies on this topic; thus, an updated synthesis of the literature on this topic is needed to enhance the field's understanding of how the COVID-19 pandemic has impacted youth mental health and what key gaps in the literature must be addressed. This review aims to organize current findings and identify patterns between COVID-19 social disruptions and adolescent mental health.

Methods

In order to better understand the COVID-19 pandemic's effects on children and adolescents' mental health, we did a review and gathered relevant publications and advisories. We picked articles and arranged them thematically. Their key findings are presented under the headings "Impact on Young Children and School Students," "Children and Adolescents with Mental Health Challenges," "Economically Underprivileged Children," "Impact Due to Quarantine and

Separation from Parents," and "International Organization Advisories." To the foregoing, we have additionally offered recommendations.

The literature review was conducted across several databases, including PsycINFO, MEDLINE, PubMed, ScienceDirect, Springer, PubMed, and the WHO Global Health research database on COVID-19. The former six are reputable databases created by various institutions, the United States National Library of Medicine, or the American Psychological Association; the latter one is a specific database that compiles all international research on COVID-19. By adding filters to the databases, searches were controlled and honed in accordance with the research question to only return results from peer-reviewed empirical studies that were specific to COVID-19 and were carried out with study populations aged 13 to 17. The search syntax was as follows: (COVID-19 OR COVID OR coronavirus) AND (youth* OR teen* OR adolescent*) AND (mental health) AND (quarantine OR lockdown OR "lock down") AND (depress*). At the time of the search, studies published up through July 2022 were included.

Results

Among the studies being examined, almost every single one demonstrated evidence that there is a relationship between the onset of social distancing measures and youth mental health, except for one that found no notable correlations between the two aspects. Many studies found that social distancing was related to a deterioration in mental health. Findings from many studies demonstrated consensus that there was an increased rate of depression and anxiety after the onset of social distancing measures. However, there were mixed results with respect to other mental health symptoms. For example, increased emotional dependence on families and increased irritability were commonly observed in adolescents after the onset of the pandemic (Lindoso et al., 2022). A small fraction of studies found that post-traumatic stress syndrome was also a serious symptom among adolescents. Some studies have also suggested that increased exposure to smartphones and social media, and thus the possibility of cyberbullying, may be a factor contributing to adolescent mental health.

It is also shown in a particular study (Oosterhoff et al., 2020) that the reason behind an adolescent's willingness for social distancing is largely contributed to the development of later mental disorders. Youth in this study endorsed a variety of prosocial, controllable, and autonomous incentives for social distancing, such as social duty, not wanting to become sick or make others sick, adhering to state or parental rules and peer recommendations, and being unable to engage in alternative activities. These motivations were related to the degree of social alienation as well as depressed symptoms, anxiety symptoms, burdensomeness, and belongingness in a distinct way. For example, adolescents who cited their reason for distancing as not wanting to get sick showed a higher rate of later developing anxiety.

Discussion

This study aimed to synthesize current findings on the impact of the COVID-19 pandemic and associated disruptions on youth mental health. Overall, studies suggest that the pandemic has had varied effects on youth mental health that differ by population and the measure of mental health. In general, studies suggest that the onset of social distancing had a negative impact on youth mental health.

Findings suggest that adolescents' motivation for engaging in social distancing protocols may impact how social distancing impacted their mental health. Adolescents most commonly reported engaging in social distancing for prosocial reasons, including recognition that social distancing is a social responsibility and to help ensure that others do not get sick (Wright et al., 2021). Furthermore, social responsibility motivations were associated with engaging in more social distancing. These findings extend previous research which indicates that adolescents' social responsibility values were associated with greater disinfecting behaviour and less hoarding behaviour in the week after COVID-19 was declared a US national emergency. In contrast, youth who indicated that they were engaging in social distancing because they lacked alternatives reported less social distancing (Wright et al., 2021). Youth motivated by a lack of

alternatives may be socially distant only if it is convenient and does not conflict with more appealing experiences. Importantly, youth who reported being socially distant due to governmental sanctions or parental rules were also more engaged in social distancing than those who did not support these motivations. These findings hold promise for the efficacy of local governments and parents to help increase adolescents' compliance with social distancing recommendations.

This study highlighted the increasing youth mental health burden in the United States. Notably, the context of mental health service delivery has changed drastically since the onset of the pandemic (Kaslow et al., 2020). Mental health interventions that are specific to the COVID-19 context may be needed to improve the current state of youth mental health. Using a public health model to address the mental health needs of a population is a promising approach. Kaslow and his fellow researchers proposed a behavioural health response continuum to “flatten the emotional distress curve,” which was inspired by the Centres for Disease Control and Prevention’s pandemic intervals framework (Kaslow et al., 2020). Through strategic planning, behavioural health experts can mobilize and provide large-scale interventions such as education on coping strategies, social connectedness, and other behavioural health education. This may help bridge the gap between mental health services and those who could benefit. Continued data gathering and research would then help to identify continued needs and provide information on program effectiveness.

WHO states that new research highlights the necessity of socioeconomic equality, universal adolescent mental illness prevention, and widely disseminated psychosocial therapies that have been proven to improve adolescent mental health (National Institute of Health, 2021). According to this data, poverty, gender, gender identity, being multiracial or an immigrant, and being poor are important structural factors that influence teenage psychological suffering. The results also show that use of marijuana, hashish, e-cigarettes, and cigarettes, as well as poor nutrition, sedentary behaviour, and excessive social media usage, are significant intermediate variables that may aggravate psychological discomfort.

Future generations will require more than ever accessible mental health care for kids and families. Decreasing financial and insurance barriers to access will be essential, including the continued development of parity for mental health care. One option to provide access for families with difficulties due to distance, safety, or transportation is through the significant growth of telehealth mental health services in the US. Due to COVID-19's disproportionate impact on communities of Black, Latino, and Native American families, collaborative behavioural health treatment in which specialists develop capacity in accordance with these communities' requirements is required.

When it comes to identifying requirements for mental health, medical settings are frequently on the front line. During this ongoing pandemic, professionals in these settings should continue to screen kids and teenagers for depression and anxiety. The need for additional assessment and/or referral for mental health treatment can be swiftly determined using standardized, empirically validated screening tools for mental health. The American Academy of Paediatrics suggested screening procedures (Mental Health Tools) on their Mental Health Initiatives website, which is located at this address: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Mental-Health/Pages/Primary-Care-Tools.aspx>. The website offers details on the measures as well as how to get them (Jones et al., 2021). For diagnosing and treating patients' total psychosocial functioning, integrating mental health specialists inside medical care can be beneficial.

Limitations and Future Directions

Most of the research on COVID quarantine's impact on mental health lack a comparative component. Screening through researches, it was usually only the mental disorders in 2019, 2020 and 2021 thoroughly examined, and are mostly cross-sectional studies. However, providing a contrast of adolescent mental health between quarantine and pre-quarantine time would present another evidence for the correlation between quarantine and worsening of adolescent psychological health.

These studies present a snapshot in time, and it will be important that research be ongoing in order to understand the short- and long-term effects of the pandemic on adolescents. Experts have cautioned that the high number of

deaths, continued experience of grief and loss, and exacerbation of current mental health disorders mean that a “second wave” of mental health consequences from this pandemic is “imminent.” Consequently, the need for effective social supports and mental health interventions is crucial (Magson et al., 2020).

Of note, many studies included in this review lacked representative samples of the adolescents and thus might cause an imprecision in the result of the study. The diversity of measures in some studies also need improvement. Many studies included measures for specific aspects of mental health (e.g., depression and anxiety). To broaden the understanding of how the COVID-19 pandemic has impacted youth mental health, future studies can expand to more symptoms. Moreover, in some studies, the symptoms investigated is very limited and the way data are gained through interviews instead of professional surveys, raised more suspicions to the quality of some studies.

Conclusion

The studies included in this review generally indicated that social disruptions associated with COVID-19, such as social isolation, were related to worsening adolescent mental health. Specifically, greater rates of anxiety and depression were observed across multiple samples of youth ages 13 to 17.

The results in general suggest that there is a decided correlation between quarantine time and worsening adolescent mental health. Continued research will be critical to understand ongoing impacts to child and adolescent mental health. There is a need for more research within communities disproportionately affected by COVID-19 such as the Black, Latino, and Native American populations. There is also a need for further research of COVID-19 impacts on children and adolescents with disabilities. Finally, there is a need to identify effective prevention strategies and treatment interventions in the changing landscape of mental health services.

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References

- Afrin, S., Nasrullah, S. M., Dalal, K., Tasnim, Z., Benzadid, M. S., Humayra, F., Saif-Ur-Rahman, K. M., & Hawlader, M. D. (2022). Mental health status of adolescents in-home quarantine: A multi-region, cross-sectional study during COVID-19 pandemic in Bangladesh. *BMC Psychology*, 10(116).
<https://doi.org/10.1186/s40359-022-00819-3>
- da Silva Neto, R. M., Benjamim, C. J., de Medeiros Carvalho, P. M., & Neto, M. L. (2020). Psychological effects caused by the COVID-19 pandemic in Health Professionals: A systematic review with meta-analysis. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 104.
<https://doi.org/10.1016/j.pnpbp.2020.110062>
- de Figueiredo, C. S., Sandre, P. C., Portugal, L. C., Mázala-de-Oliveira, T., da Silva Chagas, L., Raony, Í., Ferreira, E. S., Giestal-de-Araujo, E., dos Santos, A. A., & Bomfim, P. O.-S. (2020). Covid-19 pandemic impact on children and adolescents' mental health: Biological, environmental, and social factors. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 106, 110171. <https://doi.org/10.1016/j.pnpbp.2020.110171>
- de Sousa Moreira, J. L., Barbosa, S. M., Vieira, J. G., Chaves, N. C., Felix, E. B., Feitosa, P. W., da Cruz, I. S., da Silva, C. G., & Neto, M. L. (2020). The psychiatric and neuropsychiatric repercussions associated with severe infections of covid-19 and other coronaviruses. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 106. <https://doi.org/10.1016/j.pnpbp.2020.110159>

- Jones, E. A., Mitra, A. K., & Bhuiyan, A. R. (2021). Impact of covid-19 on Mental Health in Adolescents: A systematic review. *International Journal of Environmental Research and Public Health*, 18(5), 2470. <https://doi.org/10.3390/ijerph18052470>
- Kaslow, N. J., Friis-Healy, E. A., Cattie, J. E., Cook, S. C., Crowell, A. L., Cullum, K. A., del Rio, C., Marshall-Lee, E. D., LoPilato, A. M., VanderBroek-Stice, L., Ward, M. C., White, D. J. T., & Farber, E. W. (2020). Flattening the emotional distress curve: A behavioral health pandemic response strategy for covid-19. *American Psychologist*, 75(7), 875–886. <https://doi.org/10.1037/amp0000694>
- Li, W., Zhang, Y., Wang, J., Ozaki, A., Wang, Q., Chen, Y., & Jiang, Q. (2021). Association of Home Quarantine and mental health among teenagers in Wuhan, China, during the COVID-19 pandemic. *JAMA Pediatrics*, 175(3), 313–316. <https://doi.org/10.1001/jamapediatrics.2020.5499>
- Lindoso, L., Astley, C., Queiroz, L. B., Gualano, B., Pereira, R. M., Tannuri, U., Campos, L. M., Lourenço, B., Toma, R. K., Medeiros, K., Watanabe, A., Moreno Grangeiro, P., Barros, V. da, Casella, C. B., Farhat, S., Polanczyk, G. V., & Silva, C. A. (2022). Physical and mental health impacts during COVID-19 quarantine in adolescents with preexisting chronic immunocompromised conditions. *Jornal De Pediatria*, 98(4), 350–361. <https://doi.org/10.1016/j.jpmed.2021.09.002>
- Magson, N. R., Freeman, J. Y., Rapee, R. M., Richardson, C. E., Oar, E. L., & Fardouly, J. (2020). Risk and protective factors for prospective changes in adolescent mental health during the COVID-19 pandemic. *Journal of Youth and Adolescence*, 50(1), 44–57. <https://doi.org/10.1007/s10964-020-01332-9>
- National Institutes of Health. (2021, January). Nearly 1 in 3 adolescents in California reports serious psychological distress - digital collections - National Library of Medicine. U.S. National Library of Medicine. Retrieved August 31, 2022, from <http://resource.nlm.nih.gov/101777605>
- Oosterhoff, B., Palmer, C. A., Wilson, J., & Shook, N. (2020). Adolescents' motivations to engage in social distancing during the COVID-19 pandemic: Associations with mental and Social Health. *Journal of Adolescent Health*, 67(2), 179–185. <https://doi.org/10.1016/j.jadohealth.2020.05.004>
- Powder, J. (2021, May 17). Teen mental health during COVID-19. Johns Hopkins Bloomberg School of Public Health. Retrieved August 31, 2022, from <https://publichealth.jhu.edu/2021/teen-mental-health-during-covid-19>
- Schwab, A. (2021, February 24). COVID 19 and the Mental Health Effects of Quarantine. Clarkson Mount Sinai Bioethics Program. Retrieved August 31, 2022, from <https://sites.clarkson.edu/bioethics-blog/news/covid-19-and-the-mental-health-effects-of-quarantine/>
- West, K. D., Ali, M. M., Schreier, A., & Plourde, E. (2021, September 24). Child and adolescent mental health during COVID-19: Considerations for Schools and early childhood providers. ASPE. Retrieved August 31, 2022, from <https://www.aspe.hhs.gov/reports/child-adolescent-mental-health-during-covid-19>
- World Health Organization. (n.d.). Who coronavirus (COVID-19) dashboard. World Health Organization. Retrieved August 31, 2022, from <https://covid19.who.int/>
- Wright, N., Hill, J., Sharp, H., & Pickles, A. (2020). Impact of covid-19 on Young Adolescent Mental Health: Comparison of depression, anxiety and behaviour problems in 12 year olds immediately before and during the pandemic in a UK birth cohort. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3717557>
- Xiang, M., Zhang, Z., & Kuwahara, K. (2020). Impact of covid-19 pandemic on children and adolescents' lifestyle behavior larger than expected. *Progress in Cardiovascular Diseases*, 63(4), 531–532. <https://doi.org/10.1016/j.pcad.2020.04.013>