

## PSYCHOLOGICAL EFFECTS OF COVID-19 ON TEENAGERS

**Simona Nikolova**

SWU "Neofit Rilski", Faculty of Philosophy, Department of Psychology, Bulgaria,  
[simona.nikolova@swu.bg](mailto:simona.nikolova@swu.bg)

**Grigorios Seretis**

SWU "Neofit Rilski", Faculty of Philosophy, Department of Psychology, Bulgaria  
[seretisgrigorios@gmail.com](mailto:seretisgrigorios@gmail.com)

**Abstract:** The COVID-19 pandemic has had impact, with teenagers being a particularly vulnerable group. This paper explores the multifaceted impact of COVID-19 on teenagers, examining the physical, emotional, and social consequences of the pandemic on this age group. Teenagers experienced significant disruptions in their education due to lock down, leading to academic challenges and widening educational inequalities. The abrupt changes in social interactions, as a result of lockdowns and the measures of social, have negatively affected their mental health, contributing to increased rates of anxiety, depression, and loneliness. In addition to educational and psychological effects, the pandemic has disrupted teenagers' physical health and development, with reduced opportunities for physical activity and the closure of the recreational spaces. The change to online environments has also raised concerns about screen addiction and the negative impacts of prolonged exposure to digital media. Moreover, the economic fallout from the pandemic has exacerbated financial stress in households, particularly affecting teenagers from lower-income families, who face heightened barriers to accessing essential resources such as healthcare and education. This paper highlights the implications of these effects on teenagers' development and the necessary interventions in order to mitigate the negative outcomes. Through a review of recent studies and data, the paper emphasizes the importance of addressing the educational, mental health, and social needs of teenagers during and after the pandemic. The findings underscore the need for a coordinated response that includes support for mental health services, equitable access to education, and the promotion of physical well-being, all of which are crucial for fostering resilience in teenagers during these unprecedented times.

**Keywords:** COVID-19, teenagers, mental health, education, social impact

### 1. INTRODUCTION

World Health Organization (WHO) stated that children and youth consist 42% of the population of the world. Studies show that when children do not follow the normal school rhythms various areas of their lives are negatively affected (Koytel;ekow, 2020). The resulting problems become even more serious when there is a severe epidemic or pandemic. Many studies have investigated the psychological impact of epidemics (SARS, Ebola, H1N1 etc). The women had more frequent recurrence of the problems and adverse changes in cognition or mood than men. Such serious epidemics resulted in restrictive measures such as quarantine in cities and villages of Canada (2003), China (2003) and Western Africa (2014). The effects observed among the people who were quarantined was boredom, confusion, anger, isolation, loneliness, guilt, grief, insomnia, financial losses, stigma and lack of social goods (Decosimo et al., 2019; Ginny & Miriam, 2013; Jiloha, 2020).

In his case of Ebola (2014) children experienced loneliness, sadness and fear that they will lose their loved ones, while it was observed and increase in crime. Similar events, also occur in other serious infectious diseases, including influenza where the same precautions for safety and prevention further transmission (Liu et al., 2020).

It has even been observed that after traumatic events, symptoms of posttraumatic stress follow (Posttraumatic Stress Symptoms - PTSS) caused by symptoms such as persistence of trauma, the relative avoidance of stimuli, the emotional numbness and the normal overstimulation (Hossain et al., 2020).

In winter of 2019, Covid-19, appeared in the city of Wuhan city. The virus was quickly detected and appeared to be spreading very easily, increasing the number of patients and of the dead people in geometric progression. In February of 2020, the virus had already spread to 26 countries and had as a result 51,857 cases and 1669 dead people, while in March 2020 there were 109,577 cases and 3809 dead in 104 countries (Liu et al., 2020).

Health systems around the world strangled and opposed, a major threat to health of every citizen (Cai et al., 2020). The quick and easy transmission of the virus combined with the complications and high mortality, lead to lockdown, social distancing and quarantine in a lot of countries all over the world (Brooks et al., 2020). According to social isolation, individuals must remain at home and avoid public places and synchronization for as long as the disease is in phase of high transmission to the community (Hawryluck et al., 2004).

## 2. THE IMPACT OF COVID-19

Both social distancing and quarantine significantly affect children and grown up people, causing panic, anxiety, depression and intense fear (Brooks et al., 2020). Stigma and xenophobia are two important problems arising in society after some infectious disease. Panic and stress have also been linked to such events. So, the uncertainty threatened not only the physical health of people, but also their mental health. Behavioral Immune System theory (BIS) (Mortensen et al., 2010) states that when people feel threatened from diseases it is possible to create negative emotions (Schaller & Murray, 2008; Ackerman, 2009) and negative cognitive evaluation with purpose of their self-protection and behave with more conservative way (Schaller, 2006; Li et al., 2020).

Social distancing and staying at home constitute a way of preventing diseases that at the same time contribute to increasing interest in health and in seeking social support from families rather than from friends (Houston & Bull, 1994). Communicable diseases such as Covid-19 can disrupt the environmental context in which children live and grow up. The closing of schools and travel restrictions disrupt their daily lives while at the same time causing stress to parents who may need to seek new forms of parental care and work (Rosen et al., 2020).

In such situations children and adolescents are obliged to stay at home because of the forced isolation. As a result they limit connection with friends and classmates as well as reduced physical activity. This makes children and adolescents a vulnerable group, with focus on girls and young women, as well as children who are already well vagrants due to socio-economic exclusion or they live in crowded places, making them more vulnerable in violence and psychosocial discomfort (Rosen et al., 2020).

## 3. IMPACT OF THE COVID-19 PANDEMIC ON ADOLESCENTS

Adolescence marks a period of biopsychosocial changes, where there is significant brain development and a need for inclusion from the society of the peer group. As they navigate the path to adulthood, adolescents develop empathy, that is, their understanding of other people's feelings, intentions, and beliefs. The COVID-19 pandemic disrupted adolescent processes and appeared to be associated with a number of negative psychosocial and psychological consequences for them (de Figueiredo et al., 2021).

Increased screen time, sleep disturbances, and poor or unhealthy diets, have been shown to be connected with negative outcomes for adolescents during the pandemic of COVID-19. In more detail, according to data from UNICEF (2020), adolescents, during the quarantine, also had access to inappropriate content, making them more vulnerable to online bullying and/or abuse (UNICEF, 2020). Further findings associated no social life and increased Internet use with self-injurious behaviors or even suicide, in the context of online challenges, targeting youth (Deslandes & Coutinho, 2020).

As reported by Ruiz-Roso and colleagues (2020), research in Europe, South America and Asia has highlighted the adoption of harmful eating habits during quarantine by adolescents (Ruiz-Roso et al., 2020). In addition, quarantine caused sleep disorders and poor sleep quality (Xiag et al., 2020). According to the online survey by Xiag et al. (2020), adolescent participants had irregular sleep patterns, characterized by late morning awakenings and late night sleep onset. A key reason was the increased use of a screen in their bedroom, where teenagers connected to the Internet, either to watch movies or to interact on social media with their peers (Xiag et al., 2020).

Studies carried out at the first period of the pandemic have associated an increase in teenagers' concerns about distance education and the prospect of cancellation of promotion exams (Buzzi et al., 2020; Lee, 2020). Research by Lee and colleagues (2020) also showed that teenagers were afraid of getting sick with COVID-19, in case exams were not canceled and they could not participate in them. However, it is worth noting that, in the research of Buzzi et al (2020), the adolescent participants reported that, beyond their concerns, distance education seemed ultimately beneficial in connecting with both the School and peers their.

In addition at the research of Bera et al (2022) it was shown that the restriction of social life during pandemic of Covid-19 with the forced closing of schools increased the risk of depression and negative feelings in adolescents (Bera et al., 2022). For example, in a large-scale cross-sectional study, adolescents from 12 to 18 years old were found to experience anxiety symptoms during quarantine, with adolescent girls reporting higher levels of anxiety and depression relative to boys (Zhou et al., 2020). In Ma et al.'s (2021) meta-analysis, it was shown that the prevalence of anxiety in 13- to 18-year-old adolescents was 29.1%, while in relation to gender, adolescent girls showed higher anxiety than boys.

Regarding the occurrence of PTSD symptoms, research showed that 14.4% of adolescents and young adults reported PTSD two weeks after the outbreak of the pandemic of COVID-19 (Liang et al., 2020), while adolescents receiving medication to cope with an episode of major depression reported PTSD symptoms one month after the onset of COVID-19 (Zhang et al., 2021).

#### 4. CONCLUSION

In summary, the typical onset and development of mental health disorders during adolescence are shaped by various factors, including family dysfunction, negative peer influences, and the emergence of depressive psychopathology within cultural and social contexts (Chi et al., 2022). These factors represent forms of Adverse Childhood Experiences (ACEs), which can predispose adolescents to anxiety disorders (Elmore & Crouch, 2020). Each individual ACE acts as a distinct risk factor contributing to the onset of anxiety symptoms in this age group (Chi et al., 2022). Moreover, recent studies highlight the COVID-19 pandemic as a newly recognized ACE, linked to increased symptoms of anxiety, PTSD, and depression among today's adolescents (Ma et al., 2021).

#### ACKNOWLEDGEMENTS

I would like to express my thanks for the valuable help for the preparation of this literature review.

#### REFERENCES

- Ackerman, J.M., Becker, D.V., Mortensen, C.R., Sasaki, T., Neuberg, S.L., & Kenrick, D.T. (2009). A pox on the mind: Disjunction of attention and memory in the processing of physical disfigurement. *J Exp Soc Psychol*
- Bera, L., Souchon, M., Ladsous, A., Colin, V., & Lopez-Castroman, J. (2022). Emotional and Behavioral Impact of the COVID-19 Epidemic in Adolescents. *Current Psychiatry Reports*, 24(1), 37–46.  
<https://doi.org/10.1007/s11920-022-01313-8>
- Brooks, S.K., Webster, R.C., Smith, L.E., Woodland, L., Wessely, S., Greenberg, S. et al. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* 2020, 395:912–20
- Buzzi, C., Tucci, M., Ciprandi, R., Brambilla, I., Caimmi, S., Ciprandi, G., & Marseglia, G. L. (2020). The psychosocial effects of COVID-19 on Italian adolescents' attitudes and behaviors. *Italian Journal of Pediatrics*, 46(1), 69. <https://doi.org/10.1186/s13052-020-00833-4>
- Cai, J., Xu, J., Lin, D., Xu, L., Qu, Z., Zhang, Y. et al. (2020). Case Series of children with 2019 novel coronavirus infection: clinical and epidemiological features. *Clinical Infectious Diseases* 2020.
- Chi, X., Jiang, W., Guo, T., Hall, D. L., Luberto, C. M., & Zou, L. (2022). Relationship between adverse childhood experiences and anxiety symptoms among Chinese adolescents: The role of self-compassion and social support. *Current Psychology*. <https://doi.org/10.1007/s12144-021-02534-5>
- de Figueiredo, C. S., Sandre, P. C., Portugal, L. C. L., 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. (2021). COVID-19 pandemic impact on children and adolescents' mental health: Biological, environmental, and social factors. *Progress in NeuroPsychopharmacology & Biological Psychiatry*, 106, 110171.  
<https://doi.org/10.1016/j.pnpbp.2020.110171>
- Decosimo, C.A., Hanson, J., Quinn, M., Badu, P., & Smith, E.G. (2019). Playing to live: outcome evaluation of a community-based psychosocial expressive arts program for children during the Liberian Ebola epidemic. *Global Mental Health* 2019:6
- Deslandes, S. F., & Coutinho, T. (2020). The intensive use of the internet by children and adolescents in the context of COVID-19 and the risks for self-inflicted violence. *Ciência&SaúdeColetiva*, 25, 2479–2486.  
<https://doi.org/10.1590/1413-81232020256.1.11472020>
- Ginny, S., & Miriam, S. (2013). Posttraumatic Stress Disorder in Parents and Youth After Health-Related Disasters. *Disaster Med Public Health Preparedness*, 7:105-110.p://plan-international.org/ebolaresearchhttp://plinternational.org/ebolaresearch
- Hawryluck, L., Gold, W., Robinson, S., Pogorski, S., Galea, S., & Styra, R. (2004). SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infectious Diseases*, 10:1206
- Hossain, M.M., Sultana, A., & Purohit, N. (2020). Mental health outcomes of quarantine and isolation for infection prevention: a systematic umbrella review of the global evidence. *Epidemiol Health*, 42:e2020038
- Houston, V., & Bull, R. (1994). Do people avoid sitting next to someone who is facially disfigured. *Eur J Soc Psychol*, 24:279–284
- Jiloha, RC. (2020). COVID-19 and Mental Health. *Epidem Int*, 5(1):7-9
- Koutelekos, I. (2020). COVID-19: Impact on the mental health of parents and children. *Perioperative Nursing*, 9:1–5.
- Lee, H. Y., Kim, I., Nam, S., & Jeong, J. (2020). Adverse childhood experiences and the associations with depression and anxiety in adolescents. *Children and Youth Services Review*, 111, 104850.  
<https://doi.org/10.1016/j.childyouth.2020.104850>

- Li, S., Wang, Y., Xue, J., Zhao, N., & Zhu, T. (2020). The impact of COVID-19 epidemic declaration on psychological consequences: a study on active Weibo users. *International Journal of Environmental Research and Public Health* 2020, 17:2032.
- Liang, Y., Zhou, Y., & Liu, Z. (2021). Consistencies and differences in posttraumatic stress disorder and depression trajectories from the Wenchuan earthquake among 110 children over a 4-year period. *Journal of Affective Disorders*, 279, 9–16. <https://doi.org/10.1016/j.jad.2020.09.107>
- Liu, N., Zhang, F., Wei, C., Jia, Y., Shang, Z., Sun, L., et al. (2020). Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. *Psychiatry Research* 2020, 112–121
- Ma, L., Mazidi, M., Li, K., Li, Y., Chen, S., Kirwan, R., Zhou, H., Yan, N., Rahman, A., Wang, W., & Wang, Y. (2021). Prevalence of mental health problems among children and adolescents during the COVID-19 pandemic: A systematic review and metaanalysis. *Journal of Affective Disorders*, 293, 78–89. <https://doi.org/10.1016/j.jad.2021.06.021>
- Mortensen, C.R., Becker, D.V., Ackerman, J.M., Neuberg, S.L., & Kenrick, D.T. (2010). Infection breeds reticence: The effects of disease salience on self-perceptions of personality and behavioral avoidance tendencies. *Psychol Sci*, 21:440–447.
- Rosen, Z., Weinberger-Litman, S.L., Rosenzweig, C., Rosmarin, D.H., Muennig, P., Carmody, E.R. et al. (2020). Anxiety and distress among the first community quarantined in the US due to COVID-19: Psychological implications for the unfolding crisis.
- Ruiz-Roso, M. B., Padilha, P. de C., Mantilla-Escalante, D. C., Ulloa, N., Brun, P., Acevedo-Correa, D., Peres, W. A. F., Martorell, M., Aires, M. T., Cardoso, L. de O., Carrasco-Marín, F., Paternina-Sierra, K., Rodriguez-Meza, J. E., Montero, P. M., Bernabè, G., Pualetto, A., Taci, X., Visioli, F., & Dávalos, A. (2020). Covid-19 confinement and changes of adolescent's dietary trends in Italy, Spain, Chile, Colombia and Brazil. <https://doi.org/10.3390/nu12061807>
- Schaller, M., & Murray, D.R. (2008). Pathogens, personality, and culture: Disease prevalence predicts worldwide variability in sociosexuality, extraversion, and openness to experience. *J Personal Soc Psychol* 2008, 95:212–221
- Schaller, M. (2006). Parasites, behavioral defenses, and the social psychological mechanisms through which cultures are evoked. *Psychol Inq* 2006, 17:96–101
- UNICEF (Ed.). (2011). Adolescence: An age of opportunity. UNICEF.
- World Health Organization. Mental health and psychosocial considerations during the COVID-19 outbreak, 18 March 2020 (No. WHO/2019-nCoV/MentalHealth/2020.1).
- Wang, Y. (2021). Prevalence of mental health problems among children and adolescents during the COVID-19 pandemic: A systematic review and metaanalysis. *Journal of Affective Disorders*, 293, 78–89. <https://doi.org/10.1016/j.jad.2021.06.021>
- 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>
- Zhang, X., & Monnat, S. M. (2022). Racial/ethnic differences in clusters of adverse childhood experiences and associations with adolescent mental health. *SSM - Population Health*, 17, 100997. <https://doi.org/10.1016/j.ssmph.2021.100997>