

COVID-19's impact on internet gaming disorder among children and adolescents

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The impact of the COVID-19 pandemic on the well-being of youth has been significant. Its possible effects range from boredom, depression, anxiety, and suicidal ideation to potential increased rates of internet gaming disorder (IGD), which may have worsened during a nationwide shut-down and extended period of limited social interactions. Presently, there is a paucity of research on the impact of internet gaming on children and adolescents' mental health and well-being during COVID-19. This article aims to bring awareness to the possible rising impact of the COVID-19 pandemic on IGD and mental health in youth.

Gaming offers benefits—and risks

The gaming industry has grown immensely over the past several years. While many businesses were impacted negatively during the pandemic, the gaming industry grew. It was estimated to be worth \$159.3 billion in 2020, an increase of 9.3% from 2019.¹

Stay-at-home orders and quarantine protocols during the COVID-19 pandemic have significantly disrupted normal activities, resulting in increased time for digital entertainment, including online gaming and related activities. Internet gaming offers some benefits for children and adolescents, including socialization and connection with peers, which was especially important for avoiding isolation during the pandemic. Empirical evidence of the positive effects of internet gaming can be seen in studies of youth undergoing chemotherapy, those receiving psychotherapy for anxiety or depression, and those having emotional and behavioral

problems.² Internet gaming also provides participants with a platform to communicate with the outside world while maintaining social distancing, and might reduce anxiety, and in some cases, depression.³

Despite these benefits, for some youth, excessive internet gaming can have adverse effects. Due to its addictive properties, internet gaming can be dangerous for vulnerable individuals and lead to unhealthy habits, such as disturbed sleep patterns and increased anxiety.⁴ In a cross-sectional study conducted in China, Yu et al⁵ examined the association between IGD and suicidal ideation. They concluded that IGD was positively associated with insomnia and then depression, which in turn contributed to suicide ideation.⁵ A study based on a survey conducted in Iran from May to August 2020 in individuals age 13 to 18 years found that depression, anxiety, and stress were significant mediators in the association between IGD and self-reported quality of life.²

Internet gaming disorder is included in DSM-5 as a "condition for further study" and in ICD-11.⁶ Before the COVID-19 pandemic, a study of 1,178 American youth age 8 to 18 years revealed that 8.5% of gamers met the criteria for IGD.⁷ In a meta-analysis that included 16 studies, the pooled prevalence of IGD among adolescents was 4.6%.⁸ Some countries, including China and South Korea, have developed treatment plans for IGD,⁶ but in the United States treatment guidelines have not been established due to insufficient evidence.⁹

The COVID-19 pandemic has likely led to an increased number of children and

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Clinical Point

In the United States, treatment guidelines for IGD have not been established due to insufficient evidence

adolescents with IGD and its adverse effects on their mental health and well-being. It remains to be seen whether these youth will improve as the pandemic resolves and they resume normal activities, or if impairments will persist.

In conclusion, while internet gaming during the COVID-19 pandemic has provided benefits for many children and adolescents, the negative impact for those who develop IGD may be significant. We should be prepared to detect and address the needs of these youth and their families. Additional research is needed on the post-pandemic prevalence of IGD, its impact on youth mental health, and treatment strategies.

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