NIH-funded study finds overall rate of drug use among 10-14 year-olds remained stable during the 2020 COVID-19 pandemic

Adolescents experiencing stress, mental health issues, and hardship most likely to use substances

Repeated surveys of more than 7,800 people ages 10 to 14 conducted between September 2019 and August 2020 showed that the overall rate of drug use among these young adolescents remained relatively stable before and during the first six months of the COVID-19 pandemic. However, researchers detected shifts in the drugs used, with alcohol use declining and use of nicotine products and misuse of prescription medications increasing. Adolescents who experienced pandemic-related severe stress, depression, or anxiety, or whose families experienced material hardship during the pandemic, were most likely to use substances.

The study, which published today in the *Journal of Adolescent Health*, was funded by the National Institute on Drug Abuse (NIDA) and nine other institutes, centers, and offices that are part of the National Institutes of Health. The analysis used data from the ongoing Adolescent Brain Cognitive Development℠ (ABCD) Study, the largest long-term study of brain development and child health ever conducted in the United States.

“The past year has been difficult, and adolescents have experienced a year of turmoil and stress in precarious space between childhood and adulthood. Recognizing how the stress of the past year translates into substance use has profound implications into adulthood, because drinking and drug use at these ages are associated with a substantially higher risk of long-term alcohol and drug use disorders and related harms,” said NIDA Director Nora D. Volkow, M.D. “Because the ABCD Study had already been following this diverse, young population, researchers were able to make direct comparisons between trends in substance use before and during the pandemic, emphasizing the value of investing in long-term, collaborative research projects.”

Several studies previously determined that older adolescents’ substance use held steady or even declined during the pandemic. However, most of these analyses were done earlier in the pandemic, and no data existed on the pandemic’s influence on younger adolescents, particularly after an extended period of COVID-19–related disruptions of daily lives.

To fill this gap, the research team conducted three surveys in the six months following the initiation of stay-at-home orders—in May, June, and August 2020—with more than 7,800 ABCD Study participants ages 10 to 14 and their families participating in at least one survey. They assessed the adolescents’ use of alcohol, nicotine products, cannabis, and other drugs, misuse of prescription drugs, as well as numerous general and pandemic-related factors that could influence substance use.

The study found that overall substance use in this age group remained relatively stable across the three surveys and occurred infrequently. Across all three surveys, 8% of the adolescents reported any substance use in the past 30 days. Alcohol and nicotine use were most common (3.4% and 3.6% of the adolescents, respectively), whereas rates of misuse of prescription drugs and use of cannabis, inhalants, or other drugs were low (1.1% of adolescents or less). Most youth reported using only one substance
and only on one to two days per month.

The researchers also found that youth stress, anxiety, and depressive symptoms were all positively associated with the use of any substance, and that several pandemic-related factors increased adolescents’ likelihood of substance use. For example, youth who reported feeling “extreme” stress from the uncertainty associated with the pandemic were 2.4 times more likely to use any substance than youth who reported “very slight” stress.

For a subset of 1,079 participants, researchers were able to link assessments taken after the onset of the COVID-19 pandemic to assessments that had been completed during the months immediately before the pandemic. Importantly, for this subsample of youth, the overall rate of drug use did not increase significantly after the beginning of the pandemic compared to before the pandemic.

However, shifts occurred in the types of substances used. Alcohol use decreased, shifting from 1.9% of youth reporting alcohol use in the past 30 days in the surveys taken before the pandemic, to only 0.7% in the first survey during the pandemic. Conversely, nicotine use and prescription drug misuse increased, with 0% of youth reporting use of nicotine or misuse of prescription drugs in the past 30 days in the surveys taken before the pandemic, compared to 1.5% and 0.7% respectively in the first survey during the pandemic.

“These data suggest substance use during the pandemic was concentrated among youth from the most vulnerable families, underscoring the need to provide support to those young people and their families,” said William E. Pelham, Ph.D., of the University of California, San Diego, who led the study. “But we should also look forward, beyond the 2020 data, to understand how alcohol and drug use will continue to evolve as people return to school and work. By continuing to follow these young people for five or six more years through the ABCD Study, we can help determine the pandemic’s full impact on America’s youth and care for their health and wellbeing.”

The authors note that the study does not directly test or explain why the changes in the drugs used occurred, and additional analyses are needed to determine the mechanisms underlying these trends. Earlier findings from a different study reported steady rates of substance use in older adolescents. Continued research to understand substance use trends during and following the outset of the COVID-19 pandemic are needed for all age groups and across demographics.


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