Autistic individuals more likely to use recreational drugs to self-medicate

1 July 2021

While autistic individuals are less likely to use substances, those who do so are more likely to self-medicate for their mental health symptoms, according to new research from the University of Cambridge and published today in *The Lancet Psychiatry*.

There is significant debate about substance use of autistic adolescents and adults. Some studies indicate that autistic individuals are less likely to use substances, whereas others suggest that autistic individuals are at greater risk of substance misuse or abuse. The team at the Autism Research Centre in Cambridge used a 'mixed methods' design to consider both the frequency of substance use among autistic individuals, as well as their self-reported experiences of substance use.

Overall, 1,183 autistic and 1,203 non-autistic adolescents and adults (aged 16-90 years) provided information about the frequency of their substance use via an anonymous, online survey; of this group, 919 individuals also gave more in-depth responses about their experiences of substance use.

Autistic adults were less likely than non-autistic peers to use substances. Only 16% of autistic adults, compared to 22% of non-autistic adults, reported drinking on three or more days per week on average. Similarly, only 4% of autistic adults reported binge-drinking compared to 8% of non-autistic adults.

There were also some sex differences in patterns of substance use: autistic males were less likely than non-autistic males to report ever having smoked or used drugs. In contrast, the team did not find differences in the patterns of frequency of smoking or drug use between autistic and non-autistic females.

However, despite lower rates of substance use overall, the qualitative findings of the study provide a much less hopeful picture: autistic adults were nearly nine times more likely than non-autistic peers to report using recreational drugs (such as marijuana, cocaine and amphetamines) to manage unwanted symptoms, including autism-related symptoms.

Drugs were used to reduce sensory overload, help with mental focus, and provide routine, among other reasons. Several autistic participants also indirectly referenced using substances to mask their autism. Past research has shown that this behavioural management (also known as 'camouflaging' or 'compensating') has been linked to emotional exhaustion, worse mental health, and even increased risk of suicide among autistic adults.

Autistic adolescents and adults were also over three times more likely than others to report using substances to manage mental health symptoms, including anxiety, depression, and suicidal thoughts. Several participants specifically noted that they used drugs for self-medication. However,
this self-medication was not always viewed as negative by participants, and several noted that using recreational drugs allowed them to reduce the doses of prescribed medications for mental health conditions, which was a welcome change due to the sometimes significant side effects from their prescribed medications.

Another area of concern was the strong association between vulnerability and substance use among autistic teenagers and adults. Previous work from the Cambridge team suggests that autistic adults may be much more likely to have adverse life experiences and be at greater risk of suicide than others. The findings of the new study indicate that autistic individuals are over four times more likely to report vulnerability associated with substance use compared to their non-autistic peers, including dependence/addiction, using drugs to deal with past trauma, and substance use associated with suicide.

In addition, the study identified two new areas of vulnerability not been previously reported: being forced, tricked, or accidentally taking drugs; and childhood use of substances (at the age of 12 years or younger).

Elizabeth Weir, a Ph.D. student at the Autism Research Centre in Cambridge, and the lead researcher of the study, said: "Whether or not the substances currently classed as 'recreational' could be used medically remains an open question. It is evident that the current systems of health and social care support are not meeting the needs of many autistic teenagers and adults.

"No one should feel that they need to self-medicate for these issues without guidance from a healthcare professional. Identifying new forms of effective support is urgent considering the complex associations between substance use, mental health, and behaviour management—particularly as camouflaging and compensating behaviours are associated with suicide risk among autistic individuals."

Dr. Carrie Allison, Director of Research Strategy at the Autism Research Centre and a member of the research team, said: "While some of our results suggest lower likelihood of substance use overall, physicians should not assume that their autistic patients aren't using drugs. Drug use can be harmful so healthcare providers should aim to establish trusting relationships with autistic and non-autistic patients alike to foster frank and honest conversations about substance use."

Professor Simon Baron-Cohen, Director of the Autism Research Centre and a member of the team, said: "We continue to see new areas in which autistic adults experience vulnerability: mental health, physical health, suicide risk, lifestyle patterns, the criminal justice system, and so on. Substance use is now another area that we need to consider when developing new forms of support for autistic individuals. It is essential that we ensure that autistic people have equal access to high quality social and healthcare that can appropriately support their specific needs; and, unfortunately, it seems clear that our current systems are still not meeting this mark."


Provided by University of Cambridge