Substance use disorders linked to poor health outcomes in wide range of physical health conditions

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People who have a past history of hospitalization because of substance use disorders have much worse outcomes following the onset of a wide range of physical health conditions, according to researchers in the UK and Czechia.

In a study published today in *The Lancet Psychiatry*, researchers looked at the risk of mortality and loss of life-years among people who developed 28 different physical health conditions, comparing those who had previously been hospitalized with substance use disorder against those who had not.

They found that patients with most of the health conditions were more likely than their counterparts to die during the study period if they had been hospitalized with substance use disorder prior to the development of these conditions. For most subsequent health conditions, people with substance use disorders also had shorter life-expectancies than did individuals without substance use disorders.

One in twenty people worldwide aged 15 years or older lives with alcohol use disorder, while around one in 100 people have psychoactive drug use disorders. Although substance use disorders have considerable direct effects on health, they are also linked to a number of physical and mental health conditions. Consequently, the presence of these contributes to higher risk of mortality and shorter lifespan in people with substance use disorders.

To explore this link further, researchers analyzed patient records from Czech nationwide registers of all-cause hospitalizations and deaths during the period from 1994-2017. They used a novel design, estimating the risk of death and life-years lost after the onset of multiple specific physical health conditions in individuals with a history of hospitalization for substance use disorders, when compared with matched counterparts without substance use disorder but with the same physical health condition.

Although the study only looked at people living in Czechia, the researchers believe the results are likely to be similar in other countries, too.

They found that people with pre-existing substance use disorders were more likely than their counterparts to have died during the study following the development of 26 out of 28 physical health conditions. For seven of these conditions—including atrial fibrillation, hypertension, and ischemic heart disease—the risk was more than doubled. In most cases, people with substance use disorders have shorter life-expectancies than their counterparts.

Lead author Tomáš Formánek, a Ph.D. student at the National Institute of Mental Health, Czechia, and the University of Cambridge, said, “Substance use disorders seem to have a profound negative impact on prognosis following the development of...
various subsequent physical health conditions, in some cases dramatically affecting the life expectancy of the affected people."

It is not clear why this should be the case, though the researchers say there are a number of possible reasons. It is already known that substance use has a direct negative impact on physical health and is associated with lifestyle factors that affect our health, such as smoking, lack of exercise, and poor diet.

Similarly, people with substance use disorders are less likely to take part in screening and prevention programs for diseases such as cancer and diabetes and are less likely to use preventive medication, such as drugs to prevent hypertension. There are also some factors not directly related to substance use, such as diagnostic overshadowing, meaning the misattribution of physical symptoms to mental disorders. Such misattribution can subsequently contribute to under-diagnosis, late diagnosis, and delayed treatment in affected individuals.

Senior author Professor Peter Jones from the Department of Psychiatry, University of Cambridge, added, "These results show how important it is not to compartmentalize health conditions into mind, brain or body. All interact leading here to the dramatic increases in mortality from subsequent physical illnesses in people with substance use disorders. There are clear implications for preventive action by clinicians, health services and policy developers that all need to recognize these intersections."

Co-author Dr. Petr Winkler from the National Institute of Mental Health, Czechia, noted, "It is also important to consider that the majority of people with substance use disorders go undetected. They often do not seek a professional help and hospitalizations for these conditions usually come only at very advanced stages of illness. Alongside actions focused on physical health of people with substance use disorders, we need to equally focus on early detection and early intervention in substance use disorders."


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