

# Rates of type 2 diabetes are higher in people with one of various common psychiatric disorders

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A new study published in *Diabetologia* (the journal of the European Association for the Study of Diabetes (EASD)) finds that the prevalence

of type 2 diabetes (T2D) is elevated in people with a psychiatric disorder compared with the general population. The research was conducted by Nanna Lindekilde, Department of Psychology, University of Southern Denmark, Odense, Denmark, and colleagues.

Psychiatric disorders are common, impair the quality of life and are associated with increased [mortality rates](#). This excess mortality is caused in part by more frequent suicides and accidents, but also by an elevated risk of developing physical conditions known to be linked to mental health problems such as cardiovascular and respiratory diseases. Diabetes is an increasingly common disease throughout the world and estimates suggest that 6% to 9% of the global [general population](#) are currently affected. Rates have been rising since 1990 onwards in a trend that is expected to continue for the next 20 years.

Previous research has found that the prevalence of T2D is higher in people with bipolar disorder, schizophrenia, and major depression compared to the general population. Despite this, no systematic overview of this research is currently available to examine the possible links between prevalence of T2D and psychiatric disorders in general.

The authors conducted an in-depth search of four electronic databases of scientific papers and found 32 systematic reviews based on 245 unique primary studies. There were 11 categories of disorders: schizophrenia, bipolar disorder, depression, substance use disorder, anxiety disorder, eating disorder, intellectual disability, psychosis, sleep disorder, dementia, and a 'mixed' group that comprised different types of psychiatric disorders.

The study found that people with a sleep disorder had the highest rates of T2D with 40% of subjects having the disease while its prevalence among individuals with other psychiatric disorders was 21% (binge eating disorder), 16% ([substance use disorder](#)), 14% (anxiety disorders),

11% ([bipolar disorder](#)), and 11% (psychosis). Prevalence of T2D was lowest among people with an intellectual disability with 8% of individuals having the disease. In each case these rates are as high or higher than the 6-9% level of T2D found in the general population.

The researchers explain that sleep disorders constitute a subgroup of psychiatric disorders and have high comorbidity with several other diseases. In the review, most of the primary studies were conducted among people with additional diseases such as chronic kidney disease. The authors say: "It is likely that this physical comorbidity contributes to the high T2D prevalence estimates in people with a sleep disorder. The link between T2D and sleep [disorders](#) is likely to be bidirectional with the sleep disorder raising the risk of developing [diabetes](#), while diabetes, especially in combination with poor metabolic control, increasing the risk of developing sleep problems."

While the authors found that people with any of the investigated [psychiatric disorders](#) are more likely to have T2D than the general population, they caution: "More refined comparisons should be made between prevalence estimates in the future to better account for differences in populations groups, study settings and the broad range of years as well as methods used to ascertain T2D." For example, a study conducted in the United States might be expected to show higher rates of diabetes than the global average (including among people with a psychiatric disorder) simply due to differences in demographics and obesity rates between the US population and that of the world as a whole.

They conclude: "Increased prevalence of type 2 diabetes among individuals with a psychiatric disorder suggests that these conditions have a shared vulnerability to the development of the condition relative to the population at large. Better understanding of the observed differences in disease risk and the reasons behind them are still needed.

Reliable information about prevalence and a better understanding of biological and behavioural factors driving increased prevalence of type 2 diabetes in people with a psychiatric disorder will be crucial to developing cost-effective strategies for the management of patients in this situation."

**More information:** Nanna Lindekilde et al, Prevalence of type 2 diabetes in psychiatric disorders: an umbrella review with meta-analysis of 245 observational studies from 32 systematic reviews, *Diabetologia* (2021). [DOI: 10.1007/s00125-021-05609-x](https://doi.org/10.1007/s00125-021-05609-x)

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