**Commentary for PracticeUpdate Diabetes**

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Journal Article: Elevated risk of developing type 2 diabetes in people with a psychiatric disorder: What is the role of health behaviors and psychotropic medication? *Journal of Diabetes and Its Complications.* <https://doi.org/10.1016/j.jdiacomp.2023.108591>. N Lindekilde, LJ Diaz, M Lasgaard, JE Henriksen, SH Scheuer, GS. Andersen, KH Rubin, F Pouwer

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The underlying mechanisms by which mental illnesses increase the risk of type 2 diabetes include genetics, environment factors, health behaviours, and illness-specific and treatment effects. The contribution of each likely differs between individuals and between mental illnesses, but a greater understanding of the contribution of different factors would inform interventions to reduce the risk of diabetes in this population.

Lindekilde *et al*. utilised Danish healthcare records of 250,013 people to undertake a mediation analysis of the role of antipsychotics and antidepressants as well as health behaviours and obesity in the development of type 2 diabetes. 11,248 had a psychiatric diagnosis and during the median follow-up period of 7.2 years, 8,645 cases of incident diabetes occurred. Most mental disorders were associated with an increased risk of type 2 diabetes with hazard ratios ranging from 2.23 – 3.06, consistent with previous studies.

The mediators explained more than 50% of the association with diabetes, with greater than 80% for schizophrenia, mood disorders and substance misuse. Use of antidepressants had the largest mediating effect (13-32%), while the effect of antipsychotics was lower (3% to 16%). Smoking, physical activity and sleep problems all increased the risk of diabetes while high alcohol consumption reduced the risk. Obesity contributed to the risk, although interestingly in eating disorders, obesity appeared protective, possibly reflecting the diversity of eating disorders and different risks between anorexia and bulimia.

The greater effect of antidepressants than antipsychotics is unexpected, given antipsychotic-associated weight gain. Confounding by indication remains a possible explanation and the study is unable to tease out differential risks between individual drugs. It was also surprising that diet seemed to play no mediating role, particularly in view of the high saturated fat and refined sugar intake in people with mental illness. Diet was assessed by a single dichotomised measure and was probably at best a crude measure. Overall the proportion with unhealthy diet and physical activity was lower than anticipated and may reflect under-reporting as both were self-assessed.

Overall the paper confirms the multifactorial nature of diabetes in people with mental illness, but emphasises the need to pay attention to the use of psychotropic drugs.