

Genetic risk score for autism associated with outcome in CBT

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Depression is a common disorder for which cognitive behavioural therapy (CBT) is the recommended treatment for most patients. Researchers at Karolinska Institutet in Sweden have now studied how genetic factors relate to differences in outcome of CBT in 894 people with depression, and show for the first time how genetic risk scores is associated with CBT outcome.

"Understanding how [genetic variation](#) effects the outcome of psychological treatment can help us understand why some people don't respond to it," says study-leader Christian Rück, psychiatrist and senior lecturer at the Department of Clinical Neuroscience, Karolinska Institutet. "Ultimately this can lead to improved treatment options."

All 894 participants in the study, which was published recently in the scientific journal *Molecular Psychiatry*, had been diagnosed with [depression](#) and had undergone a 12-week course of online CBT. Before the treatment, the researchers extracted their DNA from blood samples in order to analyze how outcomes correlated with genetic variation. They did this by

comparing genetic variations in the participants with genetic risk scores for 6 different psychiatric conditions, education level and IQ.

A genetic risk score indicates how many genetic risk variants an individual has for a particular condition. Doing this, the researchers found that a higher genetic risk score for autism was associated with a poorer outcome after CBT for depression. This is the first time that genetic variation has been linked to outcomes of psychological [treatment](#) in a so-called genome-wide analysis – i.e. a study that analyses genetic variation across the entire genome.

More information: Evelyn Andersson et al. Genetics of response to cognitive behavior therapy in adults with major depression: a preliminary report, *Molecular Psychiatry* (2018). [DOI: 10.1038/s41380-018-0289-9](#)

Provided by Karolinska Institutet

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