

Genetic risk for psychiatric disorders linked to brain changes

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(HealthDay)—Polygenic risk scores for bipolar disorder and

schizophrenia are associated with ventromedial prefrontal cortex (vmPFC) structure and function, according to a study published in the July/August issue of the *Journal of Psychiatry & Neuroscience*.

Christoph Abé, Ph.D., from the Karolinska Institutet in Stockholm, and colleagues examined whether polygenic risk scores for [bipolar disorder](#) and schizophrenia predict structural brain alterations in 98 patients with bipolar disorder and 81 healthy controls. Brain [cortical thickness](#), [surface area](#), and volume were derived from structural magnetic resonance imaging (MRI) scans. Polygenic risk was correlated with functional hub strength, derived from resting-stage functional MRI and brain connectomics in post-hoc analyses.

The researchers found that for both bipolar disorder and schizophrenia, higher polygenic risk scores were associated with a thinner vmPFC. These associations were observed in the combined group and in patients and drug-naive controls separately. There was a correlation noted for polygenic risk for bipolar disorder with the functional hub strength of the vmPFC within the default mode network.

"Polygenic risk scores for bipolar disorder and schizophrenia affect cortical thickness and the functional connectivity of the vmPFC," the authors write. "We suggest that these genetically mediated vmPFC abnormalities may play an important role in risk for developing bipolar disorder."

More information: [Abstract/Full Text \(subscription or payment may be required\)](#)

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