Lipid profiles altered in people with severe mental illness

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Lipid profiles are reproducibly altered in patients with severe mental
disorders, according to a study published online Jan. 25 in *JAMA Psychiatry*.

Anna Tkachev, Ph.D., from the Skolkovo Institute of Science and Technology in Moscow, and colleagues examined the blood lipidome profile in people with severe mental disorders (e.g., schizophrenia, major depressive disorder [MDD], and bipolar disorder [BPD]). The analysis included 980 inpatients and outpatients at mental health hospitals in Western Europe, China, and Russia and 572 controls.

The researchers found that 77 lipids were significantly altered in those with schizophrenia versus controls across participants in all three countries. A lipid-based predictive model could distinguish patients with schizophrenia from controls with high diagnostic ability (area under the receiver operating characteristic curve, 0.86 to 0.95). Similar lipidome alterations were seen for patients with BPD and MDD (BPD, r = 0.89; MDD, r = 0.92). These alterations were not associated with symptom severity, medication, or demographic or environmental variables.

"This lipid alteration signature may represent a trait marker of severe psychiatric disorders, indicating its potential to be transformed into a clinically applicable testing procedure," the authors write.

One author disclosed patents related to the study subject matter as well as financial ties to the pharmaceutical industry.


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