

New study finds similarities in blood cytokine levels across three major psychiatric disorders

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Emory researchers recently released a study comparing blood cytokine levels in patients with schizophrenia, bipolar disorder and major depressive disorder. Cytokines are key signaling molecules of the immune system. The study indicates similarities in the pattern of cytokine levels across these psychiatric disorders, during acute and chronic phases, and could have important implications for treatment of certain individuals with major psychiatric disorders.

The results of the study, the first broad-based analysis of cytokines in all three disorders, were published online in the Feb. 23, 2016 edition of *Molecular Psychiatry*.

In reviewing 69 studies of acutely ill patients and 46 studies of chronically ill patients, researchers sought to better understand what's going on in the [immune system](#) of these individuals.

"We know the immune system is important when looking at [psychiatric disorders](#), but no one had really looked at this by comparing disorders in one study, nor focused on the phase of illness," says David Goldsmith, MD, chief resident for the research track in the Department of Psychiatry and Behavioral Sciences at Emory University School of Medicine.

The study found there were elevated levels of certain cytokines, in acute

phases of the disorders and some commonality in the chronic phase. For example, one inflammatory cytokine, interleukin-6, was found to be elevated in all three disorders in both acute and chronic phases of illness. By comparing these levels across diseases the researchers were able to determine that the immune system is likely involved in psychiatric disorders for some patients and therefore treatment options may need to be more personalized.

"Ultimately these findings call for a need for more studies to determine exactly which individuals might benefit most from anti-inflammatory drugs," adds Goldsmith.

More information: D R Goldsmith et al. A meta-analysis of blood cytokine network alterations in psychiatric patients: comparisons between schizophrenia, bipolar disorder and depression, *Molecular Psychiatry* (2016). [DOI: 10.1038/mp.2016.3](https://doi.org/10.1038/mp.2016.3)

Provided by Emory University

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