

Study looks at ADHD treatment in teens at risk for bipolar disorder

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A study at the University of Cincinnati (UC) will look at brain changes in adolescents with attention deficit hyperactivity disorder, known as ADHD, before and after treatment with medication.

Researchers at UC will use neuroimaging ([magnetic resonance imaging](#) or MRI) to examine the effects of standard treatment for ADHD (a psychostimulant medication, like Adderall) on brain structure and function in adolescents with a first-degree relative with bipolar disorder.

Symptoms of ADHD can include hyperactivity, fidgeting, trouble focusing or the need to get up frequently—behaviors like these that may have a negative impact at home, school or in social environments.

"Deficits in attention during childhood and early adolescence frequently precede the emergence of bipolar disorder in youth who have a family member with bipolar disorder," says a lead researcher of the study Robert McNamara, PhD, professor in the Department of Psychiatry and Behavioral Neuroscience and director of the Lipidomics Research Program. McNamara is a co-principal investigator for the study along with Melissa DelBello, MD, Dr. Stanley and Mickey Kaplan Professor and Chair of the Department of Psychiatry and Behavioral Neuroscience at the UC College of Medicine and co-director of the Mood Disorders Center.

"Because youth at risk for bipolar disorder often initially present with ADHD, they are commonly prescribed a psychostimulant medication,

and it is presently unknown whether this increases risk for precipitating the onset of bipolar disorder. By studying early [brain changes](#) in response to psychostimulant treatment, we will develop a better understanding of how this standard ADHD treatment may affect high-risk youth differently," says McNamara.

This type of research study can help inform treating physicians, explains McNamara; whether an ADHD patient is at risk for developing bipolar disorder may warrant closer monitoring following a prescription of a psychostimulant, or a different treatment strategy altogether.

Another goal of the study is to investigate whether [omega-3 fatty acid](#) deficiencies exhibited by youth at high-risk for bipolar disorder influence brain changes in response to psychostimulant medications.

"Omega-3 fatty acids, present primarily in fish, have been found to play a crucial role in brain development," says McNamara. "Previous research has shown that adolescents at a high risk for [bipolar disorder](#) exhibit low levels of omega-3 fatty acids, and that low omega-3 levels can lead to a different behavioral response to psychostimulants."

Those enrolled in the study will receive two MRI scans and evaluations every two weeks over the course of the 12-week study.

More information: For information about participating in the study, please contact Laura McLaughlin at laura.mclaughlin@uc.edu or call 513-558-6205.

Provided by University of Cincinnati

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