Psychotropic medication use, including stimulants, in young children leveling off

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The use of psychotropic prescription medications to treat ADHD, mood disorders, anxiety and other mental health disorders in very young children appears to have leveled off.

A national study of 2 to 5 year olds shows that overall psychotropic prescription use peaked in 2002-2005, then leveled off from 2006-2009. The researchers also discovered increased use of these medications among boys, white children and those without private health insurance during the 16-year study period, 1994-2009.

The Cincinnati Children's Hospital Medical Center study is published online in the journal *Pediatrics*.

"The likelihood of receiving a behavioral diagnosis increased in 2006 to 2009, but this was not accompanied by an increased propensity toward psychotropic prescription," says Tanya Froehlich, MD, a pediatrician at Cincinnati Children's and the study's senior author. "In fact, the likelihood of psychotropic use in 2006-2009 was half that of the 1994-1997 period among those with a behavioral diagnosis."

Psychotropic usage decreased from 43 percent of those with one or more behavioral diagnoses in 1994-1997 to 29 percent in 2006-2009.

Commonly prescribed psychotropic medications fall into several categories, including both typical and atypical antipsychotics, antidepressants, antianxiety agents, stimulants and mood stabilizers. The

U.S. Food and Drug Administration has approved few of these medications for the preschool age group, yet previous studies documented two to threefold increases in psychotropic prescriptions for preschool children between 1991 and 2001.

The Cincinnati Children's researchers studied data from two national surveys that collect information on patient visits to office-based physician practices and hospital-based outpatient clinics throughout the United States. The researchers studied data on more than 43,000 young children.

It is likely that the use of psychotropic medications leveled off due to numerous warnings issued in the mid to late 2000s. These include a 2004 FDA "black box" warning regarding suicidality risk, 2005 public health advisory regarding potential for cardiovascular risks involving amphetamines, and a 2006 FDA Advisory Committee recommendation (later reversed) for a black box warning on psychostimulants linking these drugs to possible heart problems.

Additional research is needed, says Dr. Froehlich, to determine why boys, white children and those without private health insurance are more likely to receive these medications and to determine their appropriateness.

"Our findings underscore the need to ensure that doctors of very young children who are diagnosing ADHD, the most common diagnosis, and prescribing stimulants, the most common psychotropic medications, are using the most up-to-date and stringent diagnostic criteria and clinical practice guidelines," says Dr. Froehlich. "Furthermore, given the continued use of psychotropic medications in very young children and concerns regarding their effects on the developing brain, future studies on the long-term effects of psychotropic medication use in this age group are essential."

Provided by Cincinnati Children's Hospital Medical Center