NEWS RELEASE

AMERICAN PSYCHIATRIC ASSOCIATION

1000 WILSON BOULEVARD, SUITE 1825, ARLINGTON, VA 22209

For Information Contact:
Beth Casteel, 703-907-8640
press@psych.org
Jim Rosack, 703-907-7862
jrosack@psych.org

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Stimulant Treatment for Young Children With ADHD Does Not Lead to Increased Risk of Substance Abuse in Early Adulthood

New AJP Study Finds Delayed Treatment, not Early Treatment, is Linked to Later Substance Abuse

ARLINGTON, Va. (April 1, 2008) – Treatment of children with stimulant medications for attention-deficit/hyperactivity disorder (ADHD) does not increase the risk of substance abuse later in adolescence and early adulthood.

A new 17-year study of 176 boys, ages 6 to 12, who were treated with the stimulant medication methylphenidate (marketed as Ritalin and other brand names) shows that the risk of substance abuse during late adolescence and into early adulthood is related to the age at which the boys began taking stimulant medications. For the first time, the new study shows that risk of substance abuse was lowest in the group of boys who began stimulant treatment for ADHD at an earlier age.

Specifically, the rate of drug abuse (excluding alcohol dependence or abuse) in those who had started taking methylphenidate early in the disease process (at age 6 or 7) was similar to the rate in a group of healthy comparison subjects. On the other hand, the rate of drug abuse was statistically significantly higher among those who had begun methylphenidate treatment at later ages, between 8 and 12.

The new findings are detailed in a report which will be published online April 1, 2008, by ***The American Journal of Psychiatry* (*AJP*),** the official journal of the American Psychiatric Association. "Age of Methylphenidate Treatment Initiation in Children With ADHD and Later Substance Abuse: Prospective Follow-Up Into Adulthood" is reported by Salvatore Mannuzza, Ph.D., Rachel G. Klein, Ph.D., Francisco X. Castellanos, M.D., and colleagues at the New York University Child Study Center and the Nathan S. Kline Institute for Psychiatric Research. The report will be available online under ***AJP in Advance*** (http://ajp.psychiatryonline.org/pap.dtl) and will appear in the May 2008 print edition of the journal.

Patients, their families, and the clinical community have all expressed concerns that stimulant treatment in early childhood might lead to later substance use disorders, an idea that is theoretically plausible. Stimulant medications and other drugs of abuse increase concentrations of the neurotransmitter dopamine in an area of the brain called the nucleus accumbens. Research has associated the nucleus accumbens with behavioral reinforcement, including the reinforcing actions of abused drugs.

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"Several studies by Barkley, Biederman, Loney, and others have now convincingly demonstrated that stimulant treatment of children with ADHD does not contribute to the later development of drug abuse," said lead author Salvatore Mannuzza, Ph.D., who is a professor of child and adolescent psychiatry at the New York University School of Medicine. "Our findings suggest that stimulant treatment as early as ages 6 and 7 does not increase the risk for developing substance abuse or antisocial behaviors later in life, and may have long-term beneficial effects."

Two months ago, a different report by independent investigators also presented evidence against an association between stimulant treatment and substance abuse. That study, presented online under ***AJP in Advance*** on March 3, appears along with the new report in the May print edition of ***AJP***. The previous study, by Joseph Biederman, M.D., and colleagues at Harvard Medical School and Massachusetts General Hospital, was a 10-year follow-up of boys with ADHD. Biederman and his colleagues followed 42 boys who were treated with stimulants and compared them with 39 who were not. In early adulthood, these two groups showed no significant differences in the rates of alcohol use disorders, nicotine dependence, or other substance-related disorders.

An editorial addressing both reports by Nora Volkow, M.D., director of the National Institute on Drug Abuse, and James Swanson, Ph.D., director of the Child Development Center at the University of California at Irvine, also appears in the May ***AJP*** print edition. Volkow and Swanson discuss the high risk for substance abuse among individuals with ADHD, pointing out that "[t]he evidence that current clinical practice does not increase later substance use or abuse is comforting. But the failure to document that childhood treatment with stimulant medication is able to decrease the high risk of substance abuse in adulthood is distressing. This highlights the need for the development of integrated treatments that target both ADHD and substance abuse."

AJP Editor-in-Chief Robert Freedman commented, "Early diagnosis and treatment of ADHD continues to be supported as a safe and effective, evidence-backed intervention that helps children while they are in school and later as adults."

Mannuzza and his colleagues were supported on this study by the National Institute of Mental Health (NIMH) and the National Institute on Drug Abuse (NIDA).

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