Study Links Antidepressant Prescriptions to Lower Suicide Rates in Adolescents

A county-by-county study of the entire United States reveals that, for children and adolescents ages five to 14, the rates of suicide in 1996 to 1998 were lower in counties with higher numbers of antidepressant prescriptions. This inverse relationship between selective serotonin reuptake inhibitor (SSRI) antidepressants and suicide in children is reported in the November 2006 issue of The American Journal of Psychiatry (AJP), the official journal of the American Psychiatric Association (APA).

The findings are presented in the article “The Relationship Between Antidepressant Prescription Rates and Rate of Early Adolescent Suicide” by Robert D. Gibbons, Ph.D., Kwan Hur, Ph.D., Dulal K. Bhaumik, Ph.D., and J. John Mann, M.D., of the Center for Health Statistics, University of Illinois at Chicago, and the New York State Psychiatric Institute and Columbia University College of Physicians and Surgeons.

The total number of suicides among children ages five to 14 during 1996 to 1998 was 933. This number corresponds to an overall annual rate of 0.8 per 100,000 population. However, the rate varied by the number of SSRI prescriptions. The counties with the highest rate of SSRI prescriptions had the lowest suicide rate (0.7 per 100,000). The counties with the second-lowest rate of SSRI prescriptions had the highest suicide rate (1.7 per 100,000). The SSRI effect remained significant after statistical adjustment for two variables affecting the availability of quality mental health care: income and the number of psychiatrists in the county.

“Warnings about the risk of suicide has resulted in decreased rate of prescription of antidepressant drugs for depressed adolescents,” said AJP Editor-In-Chief Robert Freedman, M.D. “Studies such as this one are important information in assessing whether or not this trend is in the best interests of patients.”

Suicide rates were obtained from the Centers for Disease Control and Prevention (CDC). County-level data on SSRI prescriptions were obtained from a commercial source of health care information. The results were statistically adjusted for sex, race, income, access to mental health care and variation among counties in suicide rates.

An editorial discussing the clinical implications of these findings in the context of other recent studies of the relationship between antidepressants and suicide risk appears in the same issue of AJP. The author is Gregory Simon, M.D., M.P.H., of Group Health Cooperative in Seattle, whose article, “Suicide Risk During Antidepressant Treatment” appeared in the January 2006 issue of AJP. He notes, “Even if randomized trials and large observational studies find no effect of antidepressants on average rates of suicide attempt or suicide death, average effects may not apply to all individuals.”

“The Gibbons study is a very helpful addition to the research literature on the subject of the relationship between SSRI medications and actual suicide rates in early adolescent patients,” said Darrel A. Regier, M.D., M.P.H., director of the APA’s Division of Research. “The editorial by Simon is particularly helpful for integrating findings from previous observational studies of clinical records and prospective clinical trials of the type used in FDA analysis.”

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Gibbons and colleagues also point out that their aggregate data do not prove a causal relationship. Other factors may influence suicide risk, such as compliance with the prescribed medication regimen and the quality of mental health care received.

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