

The Black Box Warning: Decreased Prescriptions and Increased Youth Suicide?

TO THE EDITOR: The article by Robert D. Gibbons, Ph.D., et al., published in the September 2007 issue of the *Journal*, incorrectly analyzed the relationship between U.S. selective serotonin reuptake inhibitor (SSRI) prescription rates and suicide rates among children (1). Dr. Gibbons et al. indicated that there is a correspondence between a 22% decrease in prescriptions after warnings were issued by the Food and Drug Administration (FDA) and the 14% increase in youth suicide rates between 2003 and 2004. They concluded that decreases in prescriptions “were associated with increases in suicide rates in children and adolescents” (1, p. 1357). Unless carefully examined, Figure 1 and Figure 2 in their article create the same impression. However, the data show no such association. In the year in which suicide rates rose sharply, there was no significant drop in SSRI prescribing. This fact is only acknowledged in the Discussion section, where an attempt is made to explain away the inconvenient truth: “While only a small decrease in the SSRI prescription rate for U.S. children and adolescents occurred from 2003 to 2004, the public health warnings may have left some of the most vulnerable youths untreated” (1, p. 1359). The discussion then continues at length as though a clear association (if not causal relationship) has been established, with alarmist predictions regarding the consequences of decreased prescribing. As it turns out, preliminary figures are now available from the Centers for Disease Control (CDC), which show that fewer people under age 25 committed suicide in 2005 (when prescribing did decrease) than in 2004 (2).

In the editorial accompanying the article, James F. Leckman, M.D., and Robert A. King, M.D., noted that the authors cited several studies that agreed with their position, but no studies that reported neutral or opposite findings (3). There is no mention of the fact that the suicide rate was already declining before SSRIs were introduced. The 2004 suicide figures were compared simplistically with the previous year, rather than examining the change in trends over several years. The y axes were contracted to make trends appear more impressive and no data tables were provided, and thus it is difficult for readers to make their own calculations.

References

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SSRI Prescriptions and the Rate of Suicide

TO THE EDITOR: Dr. Gibbons et al. pointed to recent trends in SSRI prescriptions and the rate of suicide in young people to suggest that the FDA warnings have contributed to the increase in the number of youth suicides from 2003 to 2004. On the basis of their analyses, the authors predicted that if the recent expansion of the FDA black box warning to young adults decreases overall SSRI prescriptions by 20%, there would be an additional 3,040 suicides in the United States over a 1-year period.

The authors reported that the national SSRI antidepressant prescription rates declined between 2004 and 2005 for all age groups, except those ≥ 60 years. In light of these declines, it is instructive to compare the national number of suicides in 2004 (1) with recently available preliminary figures for 2005 (2), overall and within the relevant age strata. Between 2004 and 2005, the total number of suicides declined from 32,439 (2004) to 31,769 (2005). More specifically, the number of suicides declined for persons ages 25 to 44 (11,712 to 11,262), ages 15 to 24 (4,316 to 4,139), and ages 5 to 14 (285 to 270) (1, 2). These declines occurred despite decreasing overall SSRI prescriptions among these age groups reported by Dr. Gibbons et al. In terms of rates per 100,000, the suicide rate for all ages declined from 11.0 (2004) to 10.7 (2005). For ages 25 to 44, the rate of suicide declined from 13.9 to 13.4, and it declined from 10.3 to 9.8 for ages 15 to 24. For ages 5 to 14, the rate of suicide remained constant at 0.7 (1, 2). The ratio of preliminary-to-final all-age suicides was 0.968 in 2002, 0.973 in 2003, and 0.976 in 2004 (2).

The focus of Dr. Gibbons et al. on SSRI prescriptions may not have captured the full range of effects of the warnings on clinical practice. For example, the warnings were associated with an increase in prescriptions of non-SSRI antidepressants to youth as physicians searched for alternative treatments (3). The effects of the warnings on the use of antipsychotic medications and other psychotropic medications remain poorly defined. Detailed longitudinal analyses of various classes of psychotropic medications and psychotherapy would enrich our understanding of the various effects of the warnings on clinical practice.

We feel that it is risky to draw conclusions from limited ecological analyses of isolated year-to-year fluctuations in antidepressant prescriptions and suicides. One promising epidemiological approach involves examining the associations between trends in psychotropic medication use and suicide over time across a large number of small geographic regions. Until the results of more detailed analyses are known, prudence dictates deferring judgment concerning the public health effects of the FDA warnings.

References

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