Suicide trends in Hungary: the role of antidepressants in teenage suicide

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The United States Food and Drug Administration (FDA) in 2004 announced a Black box warning on antidepressant drug use in children and adolescents less than 24 years following evidence that these drugs are associated with increased suicidal ideation and risk of suicide. This regulation caused the desired decline in the prescription of antidepressants for children and adolescents. The ensuing controversy over the net benefit of this warning has persisted till date. Hungary by virtue of its declining but still high suicide rates as well as its increasing antidepressant prescription rates provided an ideal environment to investigate this relationship. We underwent this study to ascertain if the positive correlation between antidepressant therapy and suicide exists among Hungarian children and adolescents less than 20 years of age on antidepressant treatment.

Time trend analysis (using ARIMA) and analysis of spatial correlation was carried out to determine the antidepressant prescription patterns in Hungarian adolescents, the relationship between antidepressant consumption and suicide rates' variations was tested within the study period from January 1991 to December 2006.

The increasing prescription of antidepressant drugs and the declining suicide rates within the study period was found to be significantly related (ARIMA: $p=0.030$), among the different types of antidepressants; selective serotonin reuptake inhibitors were most prescribed and had the strongest association (ARIMA: $p=0.026$). Increasing antidepressant consumption was also found to be a significant factor in the decline in the seasonality of suicide among male adolescents (ARIMA: $p=0.017$). There was no spatial correlation between the antidepressant consumption in districts of the country to the suicide rates in the same areas.

The Hungarian experiences do not support the suspicion of the suicide facilitating role of antidepressants by any studied approaches. Even, the time trend and seasonality analyses suggest a preventive role of antidepressants.