## **Letters to the Editors**

## Making Sense of Alcohol Policies on Youth Self-Destructive Behavior as Part of Suicide

We read with great interest the article by Markowitz et al. 1 on the impact of alcohol policies on youth suicide. According to the Encyclopedia of Suicide, alcoholism is a factor in about 30 percent of all completed suicides, and approximately 7 percent of those with alcohol dependence will die by suicide. About half of all people who kill themselves are intoxicated at the time. The same source reports that a review of minimum-age drinking laws (based on recent national surveys) and suicide among youths age 18 to 20 found that lower minimum-age drinking laws were associated with higher youth suicide rates. Alcohol is often found in the bloodstream of adolescents completing suicide, and drinking may facilitate a suicide even if it is not the actual cause of death. In addition, attempted suicide has a high incidence of alcohol abuse.3 Teenagers often assume alcohol and drugs at the same time, which may result in a fatal combination.

The impact of alcohol policies on youth suicide should also be referred to the various aspects of suicidal behavior, namely the role of alcohol in indirect self-destructive behavior (ISDB). Farberow<sup>4</sup> persuasively presented the following features of such behaviors: (i) undermining physical health; (ii) need to gratify the present and to overcome feelings of inadequacy; (iii) lack of future orientation and little maturity; (iv) no immediate action taken towards stress; (v) need for stimulating actions and games; (vi) various coping mechanisms (denial, suppression, regression, narcissism); (vii) lack of messages and communication with others; (viii) superficial and casual relationships. We would like to point out that suicidality in youth may be recognized through the analysis of ISDB.

Connelly<sup>5</sup> proposed that initially, alcohol gratifies needs, relaxes tension, and sedates, but as the alcoholic process develops, there is characteristically an erosion of health and a deterioration of performance and interpersonal relations. ISDB performed through the abuse of alcohol can be conceptualized as the person's active attempt to come to terms with an intolerable situation without the ultimate steps of suicide. We stress the need to explore the role of alcohol in ISDB among young people, bearing in mind that in most Western countries, girls outnumber boys with respect to nonfatal suicidal behavior. Alcohol policy makers should always assess the impact of such policies not only on completed or attempted suicides but on the many facets of suicidal conduct, such as indirect self-destructive behavior.

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- Markowitz S, Chatterji P, Kaestner R. Estimating the impact of alcohol policies on youth suicide. J Ment Health Policy Econ 2003; 6:37-46.
- Evans G, Farberow NL. The Encyclopedia of Suicide. New York: Fact On File, 2003.
- Grossman JA, Kruesi MJ. 2000. Innovative approaches to youth suicide prevention. An update and research findings. In *Review of Suicidology* 2000. New York: The Guilford Press, 170-201.
- Farberow NL. 1980. Indirect self-destructive behavior. Classification and characteristics. In *The Many Faces of Suicide*. New York: McGraw-Hill, 15-27.
- Connelly JC. 1980. Alcohol as indirect self-destructive behavior. In *The Many Faces of Suicide*. New York: McGraw-Hill, 207-219.

## In Reply

We would like to thank Pompili et al. for their comments on our paper, and for highlighting an issue that we also believe is very important. We agree that in addition to affecting completed suicide, alcohol control policies also may be useful in reducing other types of self-destructive behavior, and that efficacy of alcohol control policies needs to be evaluated on the basis of a complete accounting of potential benefits and costs. In other work, we analyze the impact of alcohol policies on suicide ideation and attempts. Moreover, studies in the economics literature show that alcohol policies may be useful in reducing several types of activities that Pompili et al. refer to as indirect selfdestructive behavior (ISDB). For example, Markowitz<sup>3</sup> and *Grossman and Markowitz*<sup>4</sup> report that among young people, alcohol control policies are associated with a reduction in violent behavior, such as weapon carrying and fighting. Other studies find that alcohol control policies are associated with a reduction in alcohol-related traffic mortality (see Cook and Moore<sup>5</sup> for a review), and risky sexual activity (Grossman and Markowitz<sup>6</sup>).

However, we caution that the type of evidence that Pompili et al. cite, for example that half of all people who kill themselves were intoxicated, is not sufficient to establish a causal relationship between alcohol use and suicide. As we emphasize in our paper, existing research has not yet established that a causal relationship exists between alcohol use and many types of self-destructive behavior, including suicidal behaviors. Although it is clear that alcohol use is strongly associated with suicide, it is possible that some or all of this association is confounded by an unobserved factor, such as depression. Therefore, our finding that alcohol control policies do not reduce suicide among adolescent females is credible. As is usually the case in social science research, additional study is warranted in order to provide enough evidence so that policy makers can make decisions with confidence using a "weight of the evidence" criterion. We encourage other researchers to address this difficult, but important, area of research.

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- 1. Pompili M, Mancinelli I, Girardi P, Tatarelli R.: Letter Making sense of alcohol policies on youth self-destructive behavior as a part of suicide. *J Ment Health Policy Econ* 2004; 7 (1): 37
- Markowitz S, Chatterji P, Kaestner R, Dave D. Substance use and suicidal behaviors among young adults. National Bureau of Economic Research Working Paper W8810, February 2002.
- Markowitz S. The role of alcohol and drug consumption in determining physical violence and weapon carrying by teenagers. *East Econ J* 2001; 27: 409-432.
- Grossman M, Markowitz S. 2001. Alcohol regulation and violence on college campuses. In *The Economic Analysis of Substance Use And Abuse: The Experience of Developed Countries and Lessons for Developing Countries 2001*. Grossman M, Hsieh C (Eds). United Kingdom: Edward Elgar Limited.
- Cook PJ, Moore MJ. 2000. Alcohol. In *Handbook of Health Economics*, *Volume 1B*. Culyer AJ, Newhouse JP (Eds). Amsterdam: Elsevier Science: 1631-1673.
- 6. Grossman M, Markowitz S. I did what last night?! Adolescent risky sexual behaviors and substance use. *East Econ J.* Forthcoming.

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