

Too many bars in rural areas linked to high suicide rates

A new study has found that completed suicides and suicide attempts occur at higher rates in rural communities that have more bars and taverns relative to other rural communities. The study examined the relationship between suicide and the number of alcohol outlets such as bars, restaurants, and stores that sell alcohol in a given area. There was also a relationship between suicide and race, with completed suicide rates lower among blacks and Hispanics, and higher among low-income, older whites living in rural areas. The full results of this study will be published in the December issue of *Alcoholism: Clinical & Experimental Research* and are currently available at *Early View*.

Previous research has found a strong relationship between drinking and taking one's own life. In any given year, people with alcohol dependence commit more than 20 percent of suicides in the general population; some 80 to 90 percent of suicides among people who are alcohol dependent are by men, mostly white. This new look at suicide and alcohol has found that both attempted and completed suicides occur at greater rates in rural communities with greater bar densities, that is more bars than other rural communities.

"Our study is unique in that it is spatial, longitudinal, and examines the relationship between suicide and features of the environment such as alcohol outlets, particularly bars, that might not at first blush appear related to suicide," explained Fred W. Johnson, associate research scientist at the Prevention Research Center and lead author for the study.

Johnson and his colleagues examined data – including population characteristics such as age, and place characteristics such as number of alcohol outlets – from 581 zip-code areas in California over six years, from 1995 through 2000. They also obtained data on completed suicides from public sources and numbers of hospitalizations for injuries caused by suicide attempts.

"When using aggregate data in a study like ours, one must take great care interpreting the results," cautioned Johnson. "Although one cannot make the strong statement that more bars cause more suicides, our findings are at least consistent with what we would expect if patronizing bars or other alcohol outlets were in fact causally related to suicide."

The results showed that *completed* suicides were more common in less populous zip-code areas, such as rural communities, and in zip-code areas with larger proportions of older, lower-income whites, but less common in zip code areas with larger proportions of blacks and Hispanics. *Suicide attempts* were also more common in rural zip codes, but those who attempted suicide were younger, and included blacks and Hispanics as well as whites.

"This suggests that the suicide *rate* is higher in rural areas," said Johnson. "The absolute *count* of suicides may be higher in urban areas because of their much greater population compared to rural areas, but the *rate* of suicides, the number of suicides per population, is greater in rural areas."

Johnson stated that a number of characteristics of rural places might contribute to the higher completed suicide rate found.. "These factors include population loss as youth leave rural towns to find jobs and opportunity in urban areas," he said. "The average age of farmers is now rising toward 60, an age when suicide rates increase as medical problems multiply and social isolation increases. Some small towns cannot attract industry and jobs even with tax and other incentives, meanwhile property values plummet. More frequent possession of firearms in rural areas is a major factor in rural suicides, with 75 percent of rural completed suicides nationally and 57 percent of rural completed suicides in California involving firearms."

These findings highlight a growing problem in rural American, said Johnson. "Most alcohol problems are not caused by the alcohol dependent, but by ordinary people who drink too much on a given occasion, leading to injuries, and motor vehicle, pedestrian, and bicycle accidents," he said. "All of these problems are related to alcohol outlets, as are more sinister problems such as homicide, assault, domestic violence, child abuse, and child neglect. This study suggests that suicide may be one of the more severe problems related to alcohol outlets, and further suggests that one way to reduce suicides and other problems related to alcohol outlets is to reduce the number of outlets, particularly bars."

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Journalists: A full copy of the manuscript may be obtained by contacting Mary Newcomb with the ACER Editorial Office at mnewcomb-acer@earthlink.net, or by visiting <http://www.blackwell-synergy.com/loi/acer>.