

Lifetime alcohol abstainers and moderate drinkers have a lower lifetime prevalence of mood and anxiety disorders than problem drinkers

Sareen J, McWilliams L, Cox B, *et al*. Does a U-shaped relationship exist between alcohol use and DSM-III-R mood and anxiety disorders? *J Affect Disord* 2004;**82**:113–18.



This article contains extra text on the EBMH website

Q Is the lifetime prevalence of mood and anxiety disorders similarly high in people with high lifetime levels of alcohol consumption and in lifetime alcohol abstainers?

METHODS

 **Design:** Cross-sectional study.

 **Setting:** Canada; date of surveys not stated.

 **Population:** 13 781 respondents from the National Comorbidity Survey (NCS; n=6780; 21–54 years old, non-institutionalised individuals) and the Mental Health Supplement of the Ontario Health Survey (OHS; n=7001; 19–64 years old; province-wide survey), categorised into three groups based on lifetime alcohol consumption: alcohol abstainers, moderate drinkers, and problem drinkers. Abstainers reported never drinking more than 12 drinks in any one year, problem drinkers had received a DSM-III-R diagnosis of alcohol abuse, dependence or a subthreshold diagnosis of “hazardous alcohol use”, and all other respondents were categorised as moderate drinkers. The NCS study defined “hazardous alcohol use” as 5–11 drinks per day at least three times a week, 12–19 drinks per day at least once a month, or >20 drinks per day at least once a month. The OHS study defined “hazardous alcohol use” as 5–7 drinks per day at least three times a week, 8–11 drinks per day at least once a week, or >12 drinks per day at least once a month.

 **Assessment:** Each data set (NCS and OHS) was analysed independently. The University of Michigan Revision of the Composite International Diagnostic Interview was used to make DSM-III-R diagnoses.

 **Outcomes:** Lifetime prevalence of mood and anxiety disorders, categorised into anxious misery disorders (major depression, dysthymia, and generalised anxiety disorder) and fear disorders (panic disorder, agoraphobia, social phobia, and simple phobia).

MAIN RESULTS

Problem drinkers had the highest lifetime prevalence of both anxious misery disorders (28.4% NCS, 17.4% OHS) and fear disorders (30.0% NCS, 26.3% OHS). Moderate drinkers and abstainers had a similar lifetime prevalence of anxious misery disorders and fear disorders (see <http://www.ebmentalhealth.com/supplemental> for table).

For correspondence: Jitender Sareen, Department of Psychiatry, University of Manitoba, PZ203-771 Bannatyne Avenue, Winnipeg, Manitoba, Canada R3E 3N4; sareen@cc.umanitoba.ca

Sources of funding: Ontario Government (Ontario Health Survey Mental Health Supplement), National Institute of Mental Health, National Institute of Drug and Alcohol Abuse, and the WT Grant Foundation (National Comorbidity Survey).

CONCLUSIONS

There is no evidence that the lifetime prevalence of mood and anxiety disorders in alcohol abstainers is as high as in problem drinkers.

Commentary

Two well known previous epidemiologic surveys^{1 2} have reported that, compared with moderate drinkers, people with excessive alcohol consumption and people who abstain from alcohol have an increased prevalence of depressive and anxiety symptoms—a so called “U shaped” relationship. In their very interesting, brief report Sareen *et al* examined whether a U shaped relationship exists between the lifetime pattern of alcohol use and lifetime prevalence of mood and anxiety disorders. Somewhat discordantly, Sareen *et al* find that abstainers have no relative excess in diagnosed mood and anxiety disorders compared with moderate drinkers, but almost the contrary.

Why do the findings of these studies apparently differ? The results most likely reflect important conceptual and methodological differences between the studies. Sareen *et al* used a validated diagnostic measure (DSM-III-R) to identify people with mood and anxiety disorders, while the two previous studies simply analysed the presence of self-reported symptoms of depression and anxiety. In addition, the studies differ in their definition of the abstinent population. Sareen *et al* classified people according to their lifetime alcohol consumption while the previous two studies used current alcohol consumption. Therefore, a person who had been alcohol dependent in the past but was currently abstinent would be categorised as a “problem drinker” in the Sareen study but as abstinent in the previous two studies. It seems likely that people in remission from alcohol dependence would be different to a lifetime abstinent population with regard to psychiatric symptoms and disorders, and therefore the approach used by Sareen *et al* may be more appropriate.

The findings of Sareen *et al* are interesting, and add to our knowledge of an area where there is little research. However, the study does have important limitations. The accuracy of the findings are likely to have been adversely affected by retrospective data collection, with recall bias and perceived stigma leading to underreporting of both drinking and psychiatric diagnoses. In addition, the high rate of abstinence among the general population in North America may limit the generalisability of these findings to countries with less abstinent populations. Finally, the cross-sectional design of the study means that causal links cannot be identified between alcohol intake and psychiatric diagnoses. Prospective cohort studies are needed to further examine this relationship.

Sami Pirkola, MD, PhD

Project Manager, Mental Health Group of National Research and Development Centre for Welfare and Health, and Senior Researcher, the Department of Mental Health and Alcohol Research of the National Public Health Institute, Finland

- 1 Power C, Rodgers B, Hope S. U-shaped relation for alcohol consumption and health in early adulthood and implications for mortality. *Lancet* 1998;**352**:877.
- 2 Rodgers B, Korten AE, Jorm AF, *et al*. Non-linear relationships in associations of depression and anxiety with alcohol use. *Psychol Med* 2000;**30**:421–32.