Reviewer’s report

Title: Problem drinking among Flemish students: beverage type, early drinking onset and negative personal & social consequences

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Reviewer: R Hingson

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This study examined data from a Belgian inter-university student survey N=19,253. The purpose was to explore the relationship between alcohol beverage type consumed and negative consequences and whether the consequences were influenced by early drinking onset. Six universities were included in the sample. The responsive rate was 22%. Respondents were asked how often they drink beer, wine martini, Sherry and Spirits. Respondents were asked the age when they drank for the first time, either a sip or a whole drink. They were also asked how often they experienced a list of 19 consequences. These were divided into personal and social negative consequences. The independent variables were frequency of drinking and age of drinking onset measured by beverage types. Analyses controlled for age, sex, institution, living situation and frequency of other substance use and stimulants, tranquilizers/sedatives, Cannabis, ecstasy, amphetamines and cocaine.

51% drink beer regularly (once/week or more). 23% drink wine, 5% non-distilled beverages and 15% spirits. The most frequent negative consequences were hang overs at 66%, nausea or vomiting at 56% and missing a class 44%. 8% reported driving while intoxicated, 23% did not experience consequences and 19% experienced five or more consequences. Personal negative consequences were 3.7 times higher among daily beer drinkers than those who drank less than once per month. Negative social consequences were consumption 3.8 times higher for daily spirits drinkers and 3.9 times higher for daily beer drinkers. Frequency of wine and non-distilled beverage; were not significantly associated with consequences. Early onset of beer and spirits consumption each were associated with negative consequences.

In their discussion, the authors indicate beer and spirits drinkers exhibit risker drinking patterns. Wine is more often drank at home or with meals. Also, those who start drinking earlier are more often frequent heavy drinkers and are more prone to risk taking.

The author suggests alcohol screening and brief counseling, interventions, and raising the legal drinking age. They cite the following study limitations:

* The survey was cross sectional.
In addition to the limitations cited by the authors, others can be mentioned. They did not examine quantity of alcohol consumed on drinking days. Frequency of binge drinking or whether respondents met alcohol use disorder criteria.

Despite these limitations, the study provides new information on type of beverage consumed and age of starting to drink each beverage type and their relation to negative personal social consequences.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
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Yes

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

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