Reviewer's report

Title: Association of alcohol consumption with depression and suicide in Chennai, India: a cross sectional study

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Reviewer: Aparna Shankar

Reviewer’s report:

This paper examines the association between problem drinking among men in South India and depression in the drinkers themselves, as well as depression and suicide attempts in female members of the household. After adjusting for a number of covariates, the authors find that in alcohol dependence was associated with increased depression. The associations with depression in female family members were not significant.

I have some comments on the manuscript:

MAJOR COMPULSORY REVISIONS

- There needs to be a clearer rationale for considering all female relatives as this paper does – at present the introduction only refers to spouses.
- The description of PHQ-9 is unclear, particularly see page 6 line 123-124.
- I would also like to see a clearer description of the covariates used in the analyses, possibly as a separate paragraph in the measures as this is now solely included in the statistical analysis section.. For e.g. what measure of quality of life was used; the tables refer to level of pain which is not referred to in the analysis section
- How was the information on suicide assessed? The statistical analysis section of the results also needs to provide further detail on the analysis carried out for suicide attempts.
- Related to a previous point, I would prefer to see the analysis examining the association between male drinking and spouse’s mental health/suicide attempts rather than for all family members as I think this would be a clearer piece of work. If not, it might be useful for the analysis to additionally consider type of relation.
- Based on the numbers presented, it appears that in some cases mental health for more than one female family member is assessed. Is this correct? Were multilevel models used?
- Table 1 should present values/category of AUDIT score as well as the categories for PHQ-9. As of now, it is unclear how many individuals are in each of the depression categories.
- While the analysis section refers to linear regression analysis on PHQ-9 scores, the results section does not provide results relating to this. Also, it would be useful to see the analysis carried out with category of PHQ-9 as the outcome, i.e.
possibly an ordinal model.
- I would like to see some further consideration in the discussion about the bidirectional relationship between alcohol consumption and depression (e.g. see Boden & Ferguson, 2011, Addiction, 106: 906-14; also see comments on the article in the same issue). Indeed, the introduction could also go further in explaining this.
- The limitations of the cross-sectional design should also be acknowledged.

MINOR REVISION
- In the tables, should ** refer to AUDIT score?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests