Reviewer's report

Title: Teenage drinking, alcohol availability and pricing: a study of risk and protective factors for alcohol related harms in school children

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Reviewer: Anette Andersen

Reviewer's report:

Alcohol use in adolescence is an ongoing huge problem and it is important to keep studying associations with various risk and protective factors. Especially the parental supply variable is very interesting. I suggest that the authors revise the manuscript in the following manners:

· I think the rationale and aim for this study is weak. The section that tells us what is already known about this subject is short and not all variables included in the analyses are introduced. The section presenting “what do we not know and therefore this is important” is lacking.

· You need to better explain why you include the variables you include. Why do you have three different measures of alcohol drinking? How are the four measures of adverse outcomes chosen? Why are weekly income and deprivation included? Do you have a theory or model which connects the variables?

· The very beginning of your paper is very broad. The readers don’t know what the aim is until very late. I think the paper could benefit from a more powerful introduction, e.g. both the outcome and determinant could be mentioned in the first section.

· I would prefer a more thorough description of the variables included, the response categories and the cut off points used in the analyses. Some variables are not even mentioned (weekly income and source of supply) in the methods section.

· I think the first sentence in the methods belongs to the introduction and the sentences from “For regretted sex after drinking... to ...relating to alcohol consumption.” belong to the discussion.

· Response rates for schools and students should be included.

· What are the ethical guidelines for collecting school survey data? Are students anonymity secured?

· How is LSOA measured and coded?

· It is not correct to use the word ‘risk’ when you refer to prevalence, page 9, paragraph 1, line 13 and page 10, paragraph 2, line 6.
· You need to be careful with the nomenclature of the variables. To help the reader there should be identical naming of the variables in the text and in the tables, e.g. cost vs. mean price, public drinking vs. drink outside.

· Page 9, paragraph 2 line 7 to page 10, first 2 lines: you mention some trend analyses and analyses of relationship between negative outcome and what the results suggest. I am not able to find these results in table 2.

· I do not agree that you have controlled for interaction in the logistic regression analysis. As far as I can see you controlled for confounding. If you want to control for interaction you need to include the product of the variables.

· The discussion section would also benefit from being order in a classical way: main findings in relation to existing literature, interpretation of results, limits and strengths, implications for practice and future research.

· The mentioning of the results in the discussion section is more a description which could have been in the results section. There should be more thorough interpretation of the results.

· Discussion of validity of the variables included is missing. What can be found in the literature?

· You write (page 12, paragraph 2) that “our data suggest such effects are mediated by a variety of factors.” Your conclusion needs to be supported by an earlier mentioning of which mechanisms you think are involved and whether you therefore want to examine mediation or confounding.

· I don’t understand the footnote ($) to table 2. And what does the star (*) refer to?

· In your analysis to table 3 and 4 I think you must get troubles with inter-correlation between your three drinking measures. They measure almost the same thing and must take too much effect from each other. Is it correct to include them in the same analysis?

**Declaration of competing interests:**

I declare I have no competing interests