Reviewer’s report

Title: Parental alcohol misuse and offspring hazardous drinking in a general teen-age population, gender-specific findings from the Young-HUNT 3 study

Version: 1 Date: 30 August 2013

Reviewer: Kamilla Rognmo

Reviewer’s report:

Major compulsory revisions:

1. Methods, first paragraph: More information on HUNT is needed, such as participation rate, sample size.

2. Methods, Statistical procedure: You need to adjust for the dependency in the data caused by siblings, by doing a GEE analysis or multilevel analysis. You should also present the statistical models more clearly.

3. Results, second paragraph: You should include one additional column in the table for the participants with both a mother and a father who drinks. It is apparent that the participants are included in several of the categories (for instance, father misuses and mother misuses, or father misuses, mother does not misuse), and it is reasonable to assume that the girls and boys who comes from families where both parents drink may score differently from the rest. What’s more, having two alcohol abusing parents may be more common when the mother abuses alcohol than when the father abuses alcohol. Thus, if you do not take this into the equation, all the results of particularly maternal alcohol abuse may in fact be caused by having two parents who drink. This goes for all the analyses.

4. Results of table 3 and 4: The estimates of maternal and paternal alcohol abuse needs to be adjusted for each other to avoid confounding of the results. Also, confidence intervals ought to be reported. The N in table 3 and 4, is that the total N? This needs to be made clearer, as it may easily be read as the number of girls or boys with alcohol misusing mothers or fathers, respectively. You should report this N as well.

5. Discussion, sixth paragraph, from “Previous studies....”: This material is best suited in the introduction. You at least need to put your results in relation to the findings of the previous studies, if you choose to leave it in the discussion.

6. Discussion, under Limitations: You need to discuss that CAGE measures having had symptoms of alcohol use disorders at one point in your life, see point 12, below. This means that many of the parents classified as alcohol misusers in your study may in fact not misuse alcohol at the time of the survey, which would underestimate the effect. Maybe you were aware of this already, but in that case you need to make this clear to the reader.
Minor essential revisions:

7. Abstract, Methods: In the first sentence, specify that you are talking about the hazardous drinking of the offspring. The adult HUNT study should also be mentioned before the last sentence of the methods section in the abstract.

8. Background, second paragraph: I do not see the relevance of the last sentence (regarding sales). Rather, I think this information indicates that alcohol use disorders are not so prevalent in Norway.

9. Background, Last paragraph: You do not investigate the population, but a sample from the population.

10. Methods, Measures, fourth paragraph: Is there a rationale behind the classifications of the age-appropriate intoxication episodes?

11. Methods, Measures, sixth paragraph: How many were categorized as moderate hazardous and high hazardous?

12. Methods, Measures, seventh paragraph: Why did you not use the information regarding alcohol consumption from Q1 in combination with CAGE? As the CAGE measures lifetime symptoms, you could have ensured that you were dealing with present time drinking if you combined the CAGE with the consumption measures. If you choose to investigate life time symptoms, then this needs to be discussed, as mentioned previously.

13. Methods: I would have liked more information regarding the treatment of missing data.

14. Results, second paragraph: To what degree do you place any emphasis on the results in table 1? If this is purely descriptive, you should make this clearer. I think it would be wise to start the results section with a heading called Descriptive statistics rather than Demographics. That way, you could include the information from Table 1, 2, 5, 6 and 7 under one heading. I find it rather confusing to have some descriptive information in the beginning and some at the end. You could also consider showing the associations in table 6 and 7 as correlations rather than odds ratios.

15. Results of table 3 and 4: You should include a variable in the analyses stating if the offspring lives with the alcohol abusing parent or not. If you don’t then you need to discuss this as a limitation.

16. Results, third paragraph: You need to specify what is reported in which table. The results would also benefit from gender comparisons, relative to the reference groups of each gender.

Discretionary revisions:

17. Abstract, results: delete “were” after ….misusing mothers...
18. Results, Figure 1: As the figure does not add new information, I think it should be deleted.

19. Discussion, Limitations and strengths, second paragraph: Associations are not severely affected by selective non-response.

**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