Reviewer's report

Title: Low level of alcohol drinking among two generations of non-Western immigrants in Oslo: a multi-ethnic comparison

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Reviewer: Carolin Donath

Reviewer's report:

An interesting theme, a well-written manuscript and solid methods. Good job. However I have some questions and some suggestions for improvement especially to ease the understanding for the reader.

Major Compulsory Revisions
1. General: The data are 10 to 12 years old. The question for me is, why publish them so late? Since then drinking patterns can change resp. evolve in societies as we see in national surveys. This implies a certain disadvantage and should a) be explained and b) be mentioned in the limitation section of the discussion.
2. Abstract, Background section: Please clarify the three available health surveys: "among adolescents, among adults and among adults" is not very clear. Which age groups do they include?
3. Abstract, Background: What is the research question / the aim of the study?
4. Abstract, Method section: Please state what the largest immigrant groups are. Are those the ones you selected? This must not necessarily be the case. Please avoid misunderstanding here.
5. Abstract, Method section: Mention shortly what you understand under drinking frequency and what you assessed. 30-d-prevalence? It's just a guess. But this is essential for the reader even more for researchers in the substance consumption field. Also mention shortly the statistical method you used to explore your question including independent & dependent variables.
6. Abstract, Results: Please state the results with referring to numbers (percentages in brackets). It will be a much more informative abstract then.
7. Abstract, Conclusions: I am afraid, that the drawn conclusions in the abstract are a little too daring. Is it really justified to speak of "several generations" based on the cross-sectional database? Furthermore the last sentence of the conclusions is a bit too general - for whom is the reduced harm implied? And again - can that be drawn from the data?
8. Background, end of 3rd. paragraph: I would like a/the description of the Norwegian "drinking culture" here. Some information follows in the method part, but in my opinion this is actual background information. Please also include what
alcohol policy the Norwegian government supports and how drinking is established in the Norwegian population. This should also include prevalences and preferred beverages (please state actual numbers) of the population. Also describe the percentage of people with migration background - in Norway and in Oslo.

9. Background, last paragraph: This section should end with an enunciated aim of the study possibly encountered by actual research questions.

10. I think the reader would be profiting of the knowledge what other studies exist that investigate consumption behavior of immigrants also on an international level and what results those have discovered as background information. This could also be incorporated when discussing the results of the own study. Possibly there are even results concerning the exact same immigrant groups. Please state numbers when reporting drinking frequencies.

11. Methods section: The description of the sampling strategy is already good. However for a better overview I would suggest a figure. This should include the numbers of how many invited and how many responded and the response rate. This should be incorporated for all three samples. For the third specified for each migration group. As an orientation you could use the flow-charts suggested by the CONSORT statement. You only need part of it since the matter concerns cross-sectional samples.

12. Methods, 6 & 7th.paragraph: For me is not clear if you excluded the immigrants from sample 2 when you compared the sample 2 with sample 3? Otherwise your results will not be exact because the lower drinking frequency of the immigrants will also lower the prevalence of the Oslo adult population sample. So for being exact there should be a comparison of the migration groups with ethnic Norwegians (without immigrants). Also all other migration groups should be excluded from the sample then or maybe pooled together to "other immigrants".

13. Table 3 and Table 4: Could you report the statistics of the Chi²-test including the p-values (either as a footnote or as an extra column in the table)?

14. Results: Did you check multicollinearity of the variables included in the regression? Please report results quickly and how you dealt with the variables. (As you know variables should be as independent as possible before including them in the model). Maybe this would also enlighten the role of the "social interaction" group.

15. General: I really acknowledge the use of SEM to investigate the role of direct and indirect influences on drinking in immigrants. However, not every reader is familiar with that method. Please give numbers as a comparison that would state a good fit of the model for the used indices. That would make it easier to interpret your results.

16. Results, paragraph 5 and 6: I cannot see how the results you describe relate to Figure 1 and Table 5. This is not clear for the reader. Could you please rephrase or add the information so that the reader can follow?

17. Table 5 & Results: "Fewer significant results were present." - How can I see
that in Table 5?

18. Results, paragraph: I would encourage you to put interpretations rather in the discussion, i.e. "This may be interpreted..."

19. Discussion, Multi-ethnic comparison: I cannot completely agree with the interpretation of the Iranian consumption patterns. It is a fact that lots of Iranian immigrants are Christians and for exactly that reason left their country. And with being Christians they cannot be compared in their behavior to immigrants with almost solely Arabic/Muslim migration background. In the cited work of Donath et al. 2011 (9) you can see that the Iranian adolescents migrated to Germany were a very special group with interesting Binge Drinking behavior.

20. Discussion, Multi-ethnic comparison: The discussion within the light of the own data is well done. However as a second step the found results need to be placed into a comparison to other studies. Please report how your results relate to drinking behavior/frequency of these immigrant groups investigated by other studies. --> Do immigrants in Norway behave different or not? Are they drinking at a lower level than in other European countries? What about North-American comparison?


Minor Essential Revisions

1. Methods, 4th. paragraph: You invited people born from 1942 to 1982. Those would have been 20 to 60 years old at the moment of the study. However later on in the method part you talk about 30-60 year olds. What happened with the 20 to 30 year-olds and why were they excluded?

2. Methods, "Frequency of drinking in the past year": Could you state the question as it was posed in the data collection?

3. Methods, "Ethnic background": What happened with adolescents who had only one parent with migration background? Were they excluded? If not what else? How many were there?

4. Methods, statistical methods: How high was the percentage of missing values?

Discretionary Revisions

1. Table 1: In my opinion, it would be sufficient to put the source in the reference list, maybe include a short remark below the table about it.

2. Results: I would suggest to talk about "own culture competence" instead of own competence. Same with host...

"Minor issues not for publication"

1. Abstract, Last sentence of Methods section: Period is missing.

2. General, also Abstract: Use the comma to structure large numbers either always or never.

3. Abstract, Conclusion: contributes instead of contribute
4. Methods, Survey variables: "which were called..." --> "which was called"
5. Table 2: "Muslim faith" instead of belief
6. Results, end of 4th paragraph: $r = .268$ (not comma) - By the way, did you use Pearson’s $r$?

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests