Author's response to reviews

Title: Health, health behaviors, and health dissimilarities predict divorce: Results from the HUNT study

Authors:

Fartein A Torvik (fartein.torvik@fhi.no)
Kristin Gustavson (kristinbrun.gustavson@fhi.no)
Espen Røysamb (espen.roysamb@psykologi.uio.no)
Kristian Tambs (kristian.tambs@fhi.no)

Version: 3
Date: 14 April 2015

Author's response to reviews: see over
Dear Dr. Kirsten K. Roessler,

Re. manuscript number 1198901708153094 - “Health, health behaviors, and health dissimilarities predict divorce: Results from the HUNT study”.

We would like to thank for overall positive evaluations of our manuscript, and for helpful comments and suggestions from the reviewers. We believe the manuscript has benefitted substantially from the review process. Below we give point-by-point responses to the reviewers’ comments (in **bold**).

We have also copyedited the entire manuscript, in accordance with the editorial request, and believe that the style of written English has improved.

We hope that these modifications meet with your approval, and that you find the revised manuscript acceptable for publication in BMC Psychology.

Yours sincerely,
Fartein Ask Torvik

**Response to reviewer #1’s comments**

We would like to thank reviewer #1 for the kind report. As the reviewer does not request or suggest any changes, we do not have any further comments.

**Response to reviewer #2’s comments**

**Abstract:**

**Minor comments:**

1. Methods: The paragraph on methods should be written in accordance with the journal’s manuscript guidelines, that is: “Methods, how the study was performed and statistical tests used”.

   We would like to thank reviewer #2 for constructive comments. The methods section of the abstract has been updated with information on statistical tests used (page 2, line 10-11).

**Discretionary:**

2. Conclusions: The first sentence of the conclusion is almost identical to the first sentence in the background and can be omitted. It would strengthen the abstract if the authors instead could say a bit more about what their study contributes with. Do the results have any implications?

   The conclusion section of the abstract has been rewritten, according to the reviewer’s suggestion (page 2, line 17-21).

**Paper:**
Major comments:

3. In the last paragraph of the section on “sample and design” (p.6) the authors state that they have already investigated the associations between alcohol use and marital dissolution and between mental distress and marital dissolution in a previous study based on the same data (Torvik et al. 2013, reference 23 in the present manuscript). Their reasons for also including these variables in the present paper are “to investigate differences in a broader context, and to adjust the results of other characteristics for these important control-variables.”

The authors need to elaborate on this explanation. What is meant by “investigating differences in a broader context”? Does this refer to the fact that in the present paper alcohol use and mental distress are also adjusted for a range of other behaviors? If alcohol use and mental distress are used as control-variables they should be referred to and presented as such throughout the manuscript.

The information on the previous study is important. In order to enhance transparency I suggest moving this information to the last part of the background section in which the purpose of the present study is presented. It has to be made clear what the present paper adds. In the discussion, the new findings should also be related to the previous paper.

In accordance with the reviewer’s suggestion, we have extended this paragraph and moved it to the last part of the introduction section (page 5 line 13-17). The previous results are now also mentioned in the discussion section (page 17 line 24-25).

4. Measures (pp.7-8): The self-report measures of subjective health, smoking, alcohol use and exercise are described, but no information is given on whether these are established measures to assess these health characteristics. If the questions are purpose-designed, how have they been developed? If these are ad-hoc questions this should be discussed in the section on limitations.

With respect to alcohol use it is not clear why drinking more than 5 times was chosen as the cutoff for women, while drinking more than 10 times was used as cut-off for men.

No precise information is given on the variables income and highest completed education. Were both categorical variables? If yes, which subcategories are there?

Some of the measures were developed specifically for the HUNT study. Although some of these have been used in papers on other topics, the psychometric properties are not known for all measures. This is now mentioned in the limitations section (page 17 line 15-17).

Different cut-offs were used for men and women because of the different prevalences of heavy drinking among men and women. The methods section has been updated (page 9 line 8-10).

Income was a continuous variable, whereas education had 4 levels (ordinal). We have also included more information on income and education in the methods section, as the reviewer requested (page 9 line 21-22).
5. Results: The descriptive results are brief. I miss information on the basic sociodemographic characteristics of the participants (education, income, length of marriage at baseline). Participants’ age is presented in the method section (sample and design, p.6); this can be moved to the descriptive results (pp.10-11).

We have updated the descriptive results section with information on education and income (page 11 line 17-21) and length of marriage at baseline for all couples and for couples who later divorced (page 12 line 1-6). However, we have not followed the reviewer’s advice to move age into the results section, as age (along with sex) is a major demographic characteristic that should be mentioned in the methods section, according to the APA manual.

Minor essential comments:

Most of my minor comments are related to clarity in argumentation, readability and consistency in the use of terms, which are issues that the manuscript can improve on.

6. It is sometimes unclear what the term “similarity” refers to. By consistently using “spousal similarity” (e.g. on p.5, l.10) clarity could be enhanced.

This has been changed to “spouse similarity” throughout the manuscript.

7. Use of the term “trait” throughout the paper (e.g. p.2, l.12): A trait usually is defined as a personality characteristic or as an attribute resulting from a hereditary predisposition (see e.g. APA Dictionary of Psychology), but in this paper the term “trait” is used to cover health characteristics and health behaviors. I think the term “trait” should be replaced by a more appropriate term throughout the paper.

The term “trait” has been replaced with “characteristics” or “health behavior” throughout the manuscript.

8. Some terms are introduced without definition or not clearly explained. Please explain these:
- Background, first paragraph: dyadic level factors – what is meant by that? Not all readers may be familiar with this.
- Background, p.3, third paragraph, what is meant by “gendered effects” (l.21)?
- Background, p.4 l.2 what is meant by “social selection”?

Two occurrences of “dyadic” have been changed to “couple”, which is hopefully more self-explaining (page 3 line 1; page 5 line 20).

“Gendered effects” (page 4 line 2) and “Social selection” (page 4 line 8-10) have been rewritten.

9. Background p.4, l.5-7: is this a statement that the authors make, or is there a literature indicating this? I suggest to rephrase this sentence and to explain the argument a bit more. The way it is put now it seems somehow counterintuitive that “similarities on risk factors for divorce are also protective”. What are they protective for?

This part of the background has been rewritten and moved (page 4, line 18-21).
10. The last paragraph on p.4 starts with “on the one hand”. – I cannot find the counterargument indicated by “on the other hand” – please check this.

This was a typing mistake and has been corrected (see page 4, line 23).

11. p.6, l.4 “contradictory registry entries from husbands and wives”. What does that mean? Was one of them registered as being married with the other one, whereas the other one was not registered as such?

The reviewer is correct in her assumption; the text has been revised for clarity (page 6 line 17-19).

12. p.7, l.21: which “population” is meant here? – All participants in the HUNT study?

The reviewer is correct in this assumption; the text has been revised for clarity (page 8 line 10-11).

13. p.15, l.6-7. Do concordant couples in general have fewer alternatives? Or do the authors mean couples in whom both show poor health behaviors/characteristics? This is not clear.

The text has been revised for clarity (page 17 line 1-2).

14. p.15, l.19: Why should the results not be generalizable to newly-weds? Please explain.

This has been elaborated (page 17 line 18-19).

15. p.16, l.6-11: This part of the conclusion is difficult to understand. It should be rewritten in order to enhance clarity.

The conclusion has been rewritten for clarity, and implications have been added (page 18 line 14-21).

Discretionary revisions:

16. Discussion: The discussion would benefit from an elaboration of what this paper adds to the literature and what the implications of this study are. Could the results have implications for e.g. divorce prevention or health behavior change interventions? Based on their study and findings, do the authors have suggestions for future research?

A paragraph on implications and suggestion for future research has been added (starting at page 17 line 23).

Some language correction is needed throughout the manuscript. Here are some examples:
- P.3, l.15 “could be a results of divorce” – delete the last s in results
- P.7, l.3 “On who were married to whom” – change to: on who was married to whom
We are grateful for the reviewer’s work in pointing out language mistakes. They have all been corrected. In addition, we have copyedited the entire manuscript.