Reviewer’s report

Title: Education-based health inequalities in 18,000 Norwegian couples: The Nord-Trondelag Health Study

Version: 4 Date: 17 August 2012

Reviewer: Niels Schenk

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Major Compulsory Revisions

Although the authors have improved the interpretation of their results, there still seem to be some unresolved issues. The authors now consistently use "relative to one’s partner" when discussing the within-couple coefficients. However, this coefficient denotes differences relative to the couples’ mean, not to one’s partner. This is different because as far as I can see a one-point difference from the couple mean entails a two-point difference to the partner (this is also what another reviewer is pointing at, see his point six in the first reviewers report). I do agree with the authors that the within and between-couple coefficients are comparable to each other, they are just not directly comparable to traditional measures of educational inequalities.

Minor Essential Revisions

Figure 2: There seems to be a mistake in the figure where anxiety scores are the dependent variable. I’m assuming the authors used 19 years of education to estimate the predicted anxiety score, the figure is plotted as if they used 20. I find it strange that the authors do not describe in the text what values the independent variables were set to when calculating these predicted scores. How old are these virtual couples and how much education did they have? Moreover, the authors state in their reviewer’s report that they expect this figure to improve the clarity of the paper. This might be true (I definitely think so), but shouldn’t they discuss it at more length if the figure is able to summarize the author’s results more clearly than the number in the tables?

There is a subscript missing in the formula describing how the ICC is calculated.

The manuscript still contains many typos and incorrect sentence constructions.

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: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests.