Reviewer's report

Title: Parental income is more important than parental education to children's health and wellbeing in adulthood: a cross-sectional study from Norway

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Reviewer: Catherine Chittleborough

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This is an interesting paper comparing the long term effects of parental financial conditions and parental education on respondent’s adult health and wellbeing, mediated by respondent’s education. I have a few concerns detailed below.

Major Compulsory Revisions

1. A stronger case could be made for the value of using four outcomes that measure similar dimensions of subjective health and wellbeing. Would we expect to see different results from each outcome?

2. Further details should be provided on how the sample of 19762 subjects were selected.

3. The dichotomisation of the composite EQ-5D variable appears to include a large proportion of respondents in the “unhealthy” category, because few respondents could have had “no problems” on all five dimensions. What is the justification for this cut off, rather than one where unhealthy is level 2 or 3 on, say, three or more of the domains?

4. There are up to 11% missing data (on father’s education). Are there differences between people who provided data on these questions, and people who didn’t? Previous research has shown that respondents with missing data on parental socioeconomic position were more likely to be disadvantaged (Chittleborough et al. Missing data on retrospective recall of early-life socio-economic position in surveillance systems: An additional disadvantage? Public Health 2008; 122: 1152-66). How likely is it that these missing data bias the results? It would be useful to have some comparison between those who did and did not answer these questions, or for the authors to have used some strategy to deal with the missing data, such as multiple imputation.

5. It is not very useful to talk about associations being “statistically significant” on the basis of an arbitrary p-value cut off of 0.05. See the following reference for further information: Sterne & Davey Smith. Sifting the evidence – what’s wrong with significance tests? BMJ 2001; 322: 226-31.

6. In the Discussion the authors state that they cannot think of any specific reason why respondents’ recall of parental education should be subject to recall bias. However, previous research (see Chittleborough reference in point 7 above) demonstrates how socioeconomically disadvantaged people are less likely to respond to questions about CSES. Potential reasons for this are
discussed in that paper.
7. What are the potential mechanisms for the direct effect of child financial conditions on adult health and wellbeing that don’t occur with parental education? (second paragraph of the Discussion)
8. It seems a little unsatisfactory to leave the analysis at the stage of “Some estimates could not be calculated due to non-convergence”. This is not my area of expertise, but statistical advice may be worthwhile here.
9. Some potential explanation should be provided for the finding that the NDE effect of father’s education is in the opposite direction to the NIE.

Minor Essential Revisions
10. In the second paragraph of the Results there is a sentence that I can’t quite make sense of: “In contrast to the large difference in self-rated health, there was only a small absolute difference in age comparative self-rated health”. Can a little more explanation be provided here? It is nice to see both relative and absolute differences presented.
11. The third paragraph of the Discussion is a re-statement of the results. This could be expanded to interpret why child financial conditions are linked to different outcomes for men and women.

Discretionary Revisions
12. In the second paragraph of the Background, the authors indicate that this study adds to the existing literature because while previous studies have used economic background, this study will use indicators of economic and social background. I think that parents’ education is used as a “social” indicator here. The rest of the paragraph goes on to explain how previous studies have examined the effect of parents’ education on later health and wellbeing. A stronger case could be made for the novelty of this study.
13. The Krieger paper used as a reference related to the accurate recall of CSES in the “Indicators of CSES” section only examined recall of social class and father’s education. Are there other studies that have examined accuracy of recall of child financial conditions?

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

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests