Reviewer’s report

Title: The association between adolescents' health and disparities in school career: a longitudinal cohort study

Version: 4
Date: 10 June 2014

Reviewer: Ingibjörg Thorisdottir

Reviewer's report:

• Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
  1. Line 76 – Most studies (not studied)
  2. Line 76-78: This line needs citations.
  3. Limitation that educational career is measured at age 16-18. Is it possible that respondents take a break and then finish their education?
  4. It is confusing how the participants were selected. It appears that they were selected from an electronic data pool of participants that have already seen a specialist (GP).
  5. Line 130; 180: Not clear why urbanization is discussed? How does that influence the data? What is the premise for including this variable in the analysis?
  6. Line 135-137 Ethical clearance needs to be rewritten.
  7. Line 175: Type of household, was the type living with a single parent or not? If so, then falling into the not living with a single parent does not give a clear picture of where the adolescent lives (both parents, one biological parent and one step parent, extended family, close family, another living form). It would be better to have living with both biological parents as that is generally a protective factor.
  8. 237 Reference c.f. if it is supposed to be compare then it should be cf.
  9. The discussion needs to be more in line with previous research and what this research is adding.
  10. 326: Secondary

• Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)
  1. Line 50: The authors should consider building the bases for the research in a more concrete manner. The first sentence (Line 50) does not make a whole lot of sense since social mobility is not discussed any further.
  2. Line 55-56; 71: The question posed by the authors is not clearly justified (Line 55-56). They mention that educational career is affected by health status, apart from other variables. It is important to list some of these other variables for those not familiar with the subject. Is it possible that other variables than health status
are more likely to predict educational outcomes? The same goes for the hypothesis (Line 71), the authors decide to focus on one possible pathway without clearly justifying why this pathway instead of another pathway.

3. Line 195-199: Do not reiterate data already shown in table

4. The authors conclude that physical health selection does not play an important role in influencing the school career of Dutch adolescents. I think that the data available might not have been the best to answer this question as noted above. The results reveal an association between school career and number of GP contacts, but since the data is pooled from participants that have already seen a specialist there is no way of knowing if that is an indicator since there is no comparison to individuals that have not seen a specialist.

6. The methods chosen are quite simple and not appropriate to examine the modifying effects of parental SES, they control for those effects instead of running two separate models one with and one without parental SES. The authors need to focus more on their research questions (Line 81-84) in the report of results

5. Line 242-244: This is quite an overstatement that I would like the authors to back up a little better.

**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