Reviewer's report

Title: Determinants in adolescence for adult sickness absence in women and men: A 26-year follow-up of a prospective population based cohort (Northern Swedish Cohort)

Version: 1 Date: 23 August 2012

Reviewer: Hans Bosma

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Major comments

Rationale – Analysis correspondence. The rationale for the study is to “contribute to an explanation of adult gender differences in sickness absence. The authors explore different determinants of adult sickness absence, separately for men and women. Would it not have been much more logical given the aim of the study to examine gender differences in sickness absence (gender as main determinant) and see how the life-course determinants are able to “explain away” the gender difference? The gender-specific analyses suggest the existence of an interaction between gender and the determinants. This confusion should somehow be solved by either providing a rationale for why we should expect different effects in men and women or by redoing the analyses as described above.

Small numbers. The authors could relate the above to the fact that the gender-specific analyses are based on relatively small numbers. This probably is even more problematic when all variables are adjusted for each other. Some ratios are really substantial, while not being statistically significant. Should the authors then at least not be more careful in interpreting the findings?

Gender effects. The manuscripts assumes that readers are familiar with the specifics of the gender literature and should provide more insight in how gender might affect choices and events during the life-course. Some examples: 2nd paragraph on page 5: it is unclear to me why gender segregation would lead to higher rates of sickness absence in women. Provide more information please. 1st paragraph on page 6: clarify how gendered choices regarding education and occupation might increase sickness absence. How does that work? Clarify “dominance principle” (page 9). Page 15: 2nd paragraph: Gender-segregated schooling sub-section is completely unclear.

GEE analyses. Time was a covariate. This implies that determinants affect sickness absence similarly from the start of the follow-up absence registration until the end of the follow-up and that the determinant is not related to longitudinally widening differences in absence. The latter would further support a causal role of the determinant, but would need examining determinant * time interactions. Please somehow provide rationale for why this was considered or not?
Minor comments

1st paragraph on page 6: only one perspective of the life-course approach is reported; there are other perspectives within that approach. Check literature on life-course (e.g. Kuh).

Page 8, exposure paragraph: provide a bit more information on the educational system in Sweden. What is upper-secondary schooling at age 18? Many start working in the Netherlands at that age. Are these higher educated pupils? What does it mean when the one not going to upper secondary education are excluded from the analyses?

Page 9: discuss the validity of the truancy and absence self-reports when the pupils were 16/18 (in Discussion). Could these not be under-reports?

GHQ was dichotomized. Why and how?

Socioeconomic grouping was based on guidelines of Statistics Sweden. Is there a reference?

How was health status father and mother measured? (page 10)

Page 12: check fonts (bold, italic) of both headings.

Page 17: girls reported only a little bit more frequently “sometimes” absence in youth.

The whole paragraph on tracking of sickness absence (page 17) is confusing: only “sometimes” youth absence is related to absence in adulthood (before and after control for health). I do not find this not much evidence for tracking of sickness absence (“unrelated to health”). If there is some life-course stability, why can we find it only in women? (see also third major comment).

Level of interest: An article of importance in its field

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.