Reviewer's report

Title: Patterns of multi-morbidity in working Australians

Version: 1 Date: 18 November 2010

Reviewer: Marjan van den Akker

Reviewer's report:

1. Is the question posed by the authors new and well defined?
   It is not clear to me whether the main focus of this manuscript is on HCA and
   EFA, or on multimorbidity. The objective is defined as the identification of disease
   clusters, but the discussion focuses on the differences between HCA and EFA.
   In itself, the question as to how diseases cluster is new and relevant. Also, the
   question which methods to use for this analyses is relevant. The problem is the
   unclear focus.

2. Are the methods appropriate and well described, and are sufficient details
   provided to replicate the work?
   I cannot judge the statistical paragraph, because I’m not an expert in clustering
   techniques and factor analysis. Also the results are hard to understand, because
   it is very technical. I think it’s up to the editor to decide whether or not this is
   acceptable (in terms of readability of the journal). However, doing a quick search
   on the internet gives me the impression that you should have used tetrachoric
   correlations instead of polychoric in case of dichotomous variables.

3. Are the data sound and well controlled?
   The response rate in this study is extremely low, with 24,7%. Although it is stated
   that the participants might not be a representative sample of all working
   Australians, I think the authors should be a bit more critical. This should be
   further elaborated in the discussion.

4. Does the manuscript adhere to the relevant standards for reporting and data
   deposition?
   It is true that the terms comorbidity and multimorbidity are used interchangeably
   in the literature. However, I strongly promote that for individual studies, authors
   chose one way of handling the terms (preferable conform the definitions of

5. Are the discussion and conclusions well balanced and adequately supported
   by the data?
   In the discussion, the authors should pay attention to the fact that they make use
   of self-reports on disease. Possibly, this influences the results.
   Also, the low response rate should be discussed.
6. Do the title and abstract accurately convey what has been found?
Yes

7. Is the writing acceptable?
In general, yes. However, there are some specific remarks:
- I cannot properly read figure 1 and relate it to the text at page 6.
- It is not clear whether 28 (page 3) or 23 (page 4) health conditions were included in the analyses.
- Please make sure the disease labels are similar throughout the manuscript: fatigue or fatigue/sleep problems; COPD or COPD & bronchiectasis.

**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, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.