Reviewer's report

Title: Co-morbidities of mental disorders and chronic physical diseases in developing and emerging countries: a meta-analysis

Version: 0 Date: 09 Jun 2018

Reviewer: Kenny S Crump

Reviewer's report:

This meta-analysis from a French research group seeks to examine the prevalence of comorbidities (chronic and parasitic diseases) in persons with mental disorders in developing and emerging countries. Though this has been relatively widely studied in developed countries, this is apparently the first meta-analysis of this topic that focuses on developing and emerging countries. In 58 studies with over 29,000 participants, the authors report high prevalences (35-45%) and pooled odds ratios (2.3-3.1) for chronic diseases or neurotropic parasitic diseases in persons with mental disorders. The analytic approach follows PRISMA guidelines for meta-analyses and includes several appropriate sensitivity analyses. The main limitations include heterogeneity of estimates that was affected by variable quality of the underlying studies, variable ascertainment of mental disorders and comorbidities in those studies, and a predominance of studies in Asia which may limit generalizability to other regions. Several clarifications are needed throughout the text. However, despite these concerns, this meta-analysis may provide a useful first step in characterizing the burden of comorbidities in persons with mental disorders in developing and emerging countries. A few specific comments are included below.

1) Page 10, lines 1-4: Here the relative odds of having depression (or depression and anxiety) in persons with chronic physical diseases is reported. However, the stated goal of the study seems to be the converse of this, i.e., the prevalence or relative odds of chronic disease comorbidities in persons with mental disorders. These are two different outcomes that sometimes appear to be conflated. Clarification is needed here and throughout the paper.

2) Page 10, lines 1-4: Odds ratios should be interpreted in terms of relative odds rather than risk, here and throughout the paper.

3) Page 6, line 12: Please clarify what is meant by "type of origin disease" and "type of associated diseases."

4) Page 12, lines 44-61: Please indicate what countries or continents are included in the meta-analyses cited.
5) Consider including a sensitivity analysis that excludes studies with the lowest quality scores.

6) The figures were difficult to follow because they are not numbered; please make sure that each is clearly indicated at the appropriate place in the text.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Needs some language corrections before being published
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