Reviewer’s report

Title: Associations between the structural and functional aspects of social relations and poor mental health. A cross-sectional register study

Version: 0 Date: 16 Jul 2017

Reviewer: Jo Durham

Reviewer's report:

Associations between the structural and functional aspects of social relations and poor mental health. A cross-sectional register study Lise Røntved Hansen; Stinna Bibi Pedersen; Charlotte Overgaard; Christian Torp-Pedersen; Line Rosenkilde Ullits BMC Public Health

This is an interesting paper and generally well written

Background

In the Background section can you provide a definition of structural and functional aspects of mental health (probably in the third paragraph), it is implicit but not clearly stated

The Berkman model could be more explicitly introduced in the background

Final paragraph of Background section please state why this study is needed, what it adds to our understanding and the significance of the findings

Define MH in this section

Methods

It is not clear if the authors administered the survey or if it is administered by a different body - can this be made clear?

Any ethical issue in administering the survey to people under 18?

In the methods section please be clear on the dependent and independent variables and how they were determined
Were the psychometric properties of the SF-12 v 2 evaluated in this sample?

How were the age ranges determined for the three groups?

Did married include 'in union'

What does economical inactive mean?

Was use of antidepressant medicine the only indictor of depression? Are there other reasons for taking antidepressant medicine?

I am not sure what reachability means in this context?

Interpretation

I am not clear how diversity of networks was assessed line 232

A limitation not mentioned seems to be the reliance on a single question to evaluate depression

I found the conclusion quite weak - what does the study reveal for interventions? The paper does not provide decision-makers with any guidance at all
I am not a statistician but the methods seem appropriate

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.

Unable to assess

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

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments
which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.