Reviewer’s report

Title: Prevalence and associated factors of mental disorders among prisoners in Mbarara municipality, southwestern Uganda: A cross-sectional study

Version: 0 Date: 08 Sep 2018

Reviewer: Birgit Vollm

Reviewer's report:

This paper describes a study assessing the prevalence of mental disorders in prisoners in Uganda. As the authors note there is a need for prevalence studies of this kind in low income countries and as such this is an important contribution to the literature. The paper is on the whole well written (except for the Discussion which is incomprehensible in parts) and there are no major concerns about the methodology. However, clarifications are required with the regards to the latter before the manuscript would be suitable for publication.

General comments

There are some typos throughout, so a thorough read will be required before resubmission.

Introduction

The introduction would benefit from a more comprehensive account of the situation with regards to psychiatric services and prisons generally, e.g. how accessible is treatment for mental disorders in the country generally, what is the imprisonment rate, how does this compare worldwide and with regards to other African countries, what are the options re insanity or diversion for mentally disordered offenders, etc. Also, how is healthcare and screening in prison organised?

Methods

The methods have to be clarified in some respects:

- Please clarify how many participants were remand or sentenced prisoners
- On the other hand the exact physical location of the Mbarara Municipality is not required
- Please report the refusal rate for participation in the study
- Were there participants who could not be included due to acute mental illness, as they were either too ill to be interviewed or could not give informed consent.

- It is not clear who the information from the MINI was followed up, i.e. was there an additional clinical interview based on the MINI to make a diagnosis?

- In the results there are variables reported for which it is unclear how they were assessed and this should be clarified in the Methods section - i.e. parenting style, traumatic brain injury, category of crime, past psychological trauma. It would also be helpful to explain the available follow-up services - it is not clear, e.g., what outreach refers to - is this after prison?, likewise Referral Hospital.

Results

It is not clear what is meant by "under regular imprisonment".

It is not entirely clear which figures relate to current and which to lifetime diagnoses; maybe in Table 1 two columns could be displayed to present these two figures. In addition, it would be helpful to display ICD10 F categories for the various diagnoses. From what is said at the beginning of the Discussion, the figures shown in Table 1 relate only to those prisoners who have a single diagnosis only; however, as these are only few, the figures should be smaller. So probably, the figures relate to all prisoners; but this needs clarification. Also the Results section says 82% have more than one diagnosis but the Discussion section says 73%. Also ASPD is reported with a prevalence of 21% in the results section but 7% in the Discussion. These discrepancies have to be ironed out.

It is not clear what is meant by "current episodes" - should this be current diagnoses?

It is not clear what the difference is between "past" and "lifetime" diagnoses.

How was suicidality diagnosed?

Are the cases of "mood disorder with psychotic features" mutually exclusive to the other mood disorders?

Do the authors have figures for other personality disorders, other than antisocial PD?

Table 2: It is not clear what "Ref" means in Table 2.

In Table 3 and the associated diagnoses it is not clear how comorbidity was defined here; was it any comorbidity or just the ones listed in Table 1.
Discussion

Overall the Discussion seems a bit rushed with clumsy formulations in parts and needs to be looked at again with this in mind.

The authors talk about the relationship between suicidality and different diagnoses but this does not appear to have been presented in the results section. Please report all results in the Results section.

The discussion would benefit from a more detailed comparison of the prevalence figures found in this study with those in the general population in Uganda.

With regards to the prevalence of substance abuse disorders, the authors state that they attribute the low figures to the rigorous checks with regards to visitors. This would explain low substance use in prison but not necessarily low prevalence figures, even less so for lifetime diagnosis.

With regards to the prevalence of ASPD, the authors refer to cultural differences - these need to be explained in more detail.

Again, the authors refer to prior history of mental illness, family history of incarceration and child abuse but these figures are not clearly displayed in the Results section. It is also not clear how exactly the fact that Uganda is a low income country accounts for the difference in these variables compared to other countries.

When the authors speak about "dual diagnosis", do they really mean two diagnoses or multiple ones?

Again, there are results reported for the first time in the Discussion with regards to less likelihood of multiple diagnoses. All results have to be reported in the Results section first.

Last paragraph on Page 12 is unclear, please reformulate.

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

No

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

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

Needs some language corrections before being published

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.

See main review

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