Author's response to reviews

Title: Prevalence and risk factors of major depressive disorder in HIV/AIDS as seen in semi-urban Entebbe district, Uganda

Authors:

Eugene Kinyanda (Eugene.Kinyanda@mrcuganda.org)
Susan Hoskins (sjh@ctu.mrc.ac.uk)
Juliet Nakku (jnakku@yahoo.com)
Saira Nawaz (nawaz.saira@gmail.com)
Vikram Patel (vikram.patel@lshtm.ac.uk)

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Author's response to reviews: see over
Dear Editor

The reviewers comments have been addressed as follows:

**Title:** Prevalence and risk factors of major depressive disorder in HIV/AIDS as seen in semi-urban Entebbe district, Uganda

**Reviewer 1**

**Reviewer:** Kee-Lee Chou

**Reviewer’s report:**

**Major Compulsory Revisions:**

This paper examines the correlates of major depressive disorder (MDD) in people with HIV/AIDS in Uganda. The authors have addressed an important public health issue given the popularity of HIV/AIDS in that region. However, I have found several concerns as follows:

1. Exclusion criteria for respondents are not clear. Specifically, it is not clear who decided that potential respondents were too sick to participate in the study.

   **Addressed under exclusion criteria.**

2. The follow-up assessment is irrelevant to the current paper.

   **Removed**

3. The measurement of life events is confusing. It is unclear why only life events related to social relationship were included.

   **This section has been re-written to make it clearer.**

4. The measurement of life events and stress must be highly correlated with each other so the authors might check the multi-collinearity of them in multivariate data analyses.

   Yes, negative life events and stress score are highly correlated. We have changed the final model in response to the second reviewer’s comments, and it no longer contains both the life events and stress score variables. After adjusting for negative life events (which is more strongly associated with MDD), the stress score was no longer associated with MDD.

5. Although the authors admitted that some scales have not been validated in local context at the end of this paper, they might state that in methodology section as well. **Stated in the methods section.**

6. As authors mentioned that the stress-vulnerability model was used in the study, I anticipate that moderating effect will be tested in the paper. Specifically, the moderating role of social support or coping in the link between stress and MDD.

   The strong positive association between stress score and MDD was only moderately attenuated when adjusted for social support and coping style index (OR for high stress store vs low = 6.53, CI=2.37-18.0 when adjusted for age, sex, social support, and negative coping
After adjusting for age, there was some evidence that the prevalence of MDD was higher among females (p=0.08). Females had a higher prevalence of negative life events than males (46% with 6+ events, vs 36% of males). When adjusted for age and life events, there was no evidence that gender was associated with MDD (p=0.29). We have added this to the Results and Discussion.

Reviewer 2

Reviewer: Limin Mao

Reviewer's report:

Overall, this paper highlights a very important and interesting finding that the key factors associated with major depression among people with HIV are mostly demographical, social and familial variables rather than HIV clinical markers. This finding, based on people with HIV in Africa, is very similar to reports from industrialised countries and hence, very informative for policy and practices to improve mental health among people living with HIV, and more broadly, people with chronic illness.

Major Compulsory Revisions:

1. Table 4, the logistic regression model: The equation should be further processed through a model reduction process. Often, a final reduced model only contains variables that were significant.

We have re-done the final model so that only factors that are independently associated with MDD at p<0.05 remain in the model.

Minor Essential Revisions:

1. Tables 1-3: Adjusted OR should add a footnote claiming sex and age groups were controlled for.

Done

2. fix the typo: 1st paragraph in the Study design section: "in order to under the interview process" should be “undertake” instead of “under”?

Addressed

3. description of the sample: although CD4 count, one of the HIV clinical markers, was found not to be associated with MDD. The authors should provide other details of participants' HIV infection history, eg., year of HIV diagnosis, proportion with a diagnosed AIDS disease etc.

The requested details were not collected.