Author's response to reviews

Title: Depression symptoms and cognitive function among individuals with advanced HIV infection initiating HAART in Uganda.

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Author's response to reviews: see over
Dear Scientific Editor,

BMC series journals

Re: Response to reviewers’ comments on MS: 1908145036298464- Depression symptoms and cognitive impairment among HIV positive individuals in Uganda.

Thank you for forwarding the remaining questions raised by one of the reviewers of our manuscript. First we would like to address the editorial issue about the “Title page”. This has been formatted according to the journal homepage instructions and it is included at the beginning of the manuscript. We have done our best in addressing each of the concerns raised by the reviewer, please see below:

Reviewer 1:
Comment 1
In the statement of hypothesis in the introduction I am wondering if the authors are simply stating the null hypotheses rather than a set of hypotheses based on the literature review presented in the introduction. For example, the first hypothesis regarding the prevalence of depression states that depression would not be “common” among HIV individuals. The literature review in the introduction seems to suggest that depression would be more prevalent in HIV patients.

Response: We had initially stated our hypotheses as null. For clarity we have changed them to alternate hypotheses and they now read:-
(1) Depression symptomatology would occur more commonly among HIV-positive individuals when compared to HIV-seronegative individuals;
(2) Depression symptomatology would be inversely associated with cognitive impairment among HIV-positive individuals; and
(3) Following initiation of HAART, depression symptomatology would improve concomitant with improvements in immunological function."
These changes have been made on page 2.

Comment 2
Do you think literacy had any impact on your cognitive test results? You state that there were those who were unable to read the consent forms in the methods so I would be interested to know if you feel that your scores were affected by illiteracy in a way that might bias your prevalence estimates. What was the literacy rate in your sample?
Response: We specifically choose neuropsychological tests that were not language based for the most part in an attempt to minimize any potential impact of low literacy. After tallying for the read/write language variables at baseline, of the HIV seronegative controls, 25/25 could read and 24/25 could write. Of the HIV seropositive participants, 92/103 could read and 84/103 could write. These differences in reading and writing were not significant for reading (p=.082), but were for writing (p=.039) - using Fisher’s exact test so the impact of literacy on our cognitive test results was probably small. Given the above findings the scores on the cognitive tests were unlikely to be affected by the literacy rate.

This information has been included in the results section on page 6 and a follow up of the same made in the discussion on page 9.

Comment 3
Since you have a follow-up arm of your study, it would be important to report any attrition in your sample. This is especially important because you make a statement in the discussion that suggest that attrition may be a factor in the lack of difference in you groups.

Response: The retention was fairly good in both arms. For the HIV seronegative controls, 23/25(92%) returned for visit 2 and 21/25(84%) returned for visit 3. Of the HIV seropositive participants, 95/103(92%) returned for visit 2 and 93/103(90%) returned for visit 3. However we go on to discuss that though the rates were slightly different for the third visit the difference between the groups is unlikely to have led to the difference observed in depression rates between the two study groups. Please see page 8 of the results section and page 10 of the discussion.

Those are the responses to the comments. All changes in the manuscript have been highlighted in blue font color for easy tracking. We look forward to hearing from you.

Sincerely

Noeline Nakasujja
Corresponding author.