Reviewer’s report

Title: Prevalence and Factors Associated with Major Depressive Disorder in Children and Adolescents at the Uganda Cancer Institute

Version: 1 Date: 21 Dec 2018

Reviewer: Research Square

Reviewer's report:

"STATISTICAL REVIEWER ASSESSMENT:

Is the study design appropriate for the research question (considering whether the analyzed population accurately reflects the design and whether you see any problems with control/comparison groups, e.g., likely confounders)?

No - there are minor issues

Are methodologies adequate and well implemented (considering whether assumptions are addressed and whether analyses are robust)?

No - there are minor issues

Are the analyses adequately communicated (considering whether reporting details are adequate and whether figures and tables are well labeled and described)?

No - there are minor issues

Does the interpretation accurately reflect the analyses without overstatement (considering whether limitations/bias are acknowledged and whether accurate descriptors, e.g., 'significant', are used)?

No - there are major issues

Could an appropriately REVISED version of this work represent a statistically sound contribution?

Probably - with minor revisions
STATISTICAL REVIEWER COMMENTS:

* What is your overall impression of the study?

This manuscript has a good potential to be accepted for publication. Some minor mistakes and missing pieces in Methods and Results exist. They can be fixed properly.

* What have the authors have done well in terms of the statistics?

(1) The author conducted a power analysis for sample size estimation prior to study began. (2) The author reported MDD prevalence by demographic characteristics. (3) The author chose to conduct multiple logistic regression.

* In what ways does it not meet best practice for statistics?

(1) The power of 0.08 in sample size estimation is too low. A power of 0.8 or higher is suggested. (2) All given logistic regression models should have each variable's reference identified in the tables. (3) R-square of the multiple logistic regression model should be reported. (4) Three variables (Residing in Eastern Uganda, Residing in Northern Uganda, and Married/co-habitating caregiver) had their lower limits of 95% confidence interval nearly 1.0. These three may not be included in the final multiple logistic regression model. (5) The interpretation of bivariate logistic regression and multiple logistic regression are very limited. It is not clear how much the author understood the results.

REQUESTED REVISIONS:

1. The estimated power in the sample size determination was too small.

2. All given logistic regression models should have each variable's reference identified in the tables.

3. R-square of the multiple logistic regression model should be reported.

4. Three variables (Residing in Eastern Uganda, Residing in Northern Uganda, and Married/co-habitating caregiver) had their lower limits of 95% confidence interval nearly 1.0. These three may not be included in the final multiple logistic regression model.

5. The interpretation of bivariate logistic regression and multiple logistic regression are very limited. It is not clear how much the author understood the results."
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.

No

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

No

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.

This reviewer has been recruited by a partner organization, Research Square. Reviewers with declared or apparent competing interests are not utilized for these reviews. This reviewer has agreed to publication of their comments online under a Creative Commons Attribution License attributed to Research Square and was paid a small honorarium for completing the review within a specified timeframe. Honoraria for reviews such as this are paid regardless of the reviewer recommendation.

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.