Reviewer's report

Title: Factors Associated with Depression among Adolescents Living with HIV in Malawi

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Reviewer: Carryl P Navalta

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The authors conducted a cross-sectional study in which they aimed to add to the lacking body of literature on risk factors for depression among HIV-infected adolescents in sub-Saharan Africa (specifically, the country of Malawi). Adolescents aged 12-18 years living with HIV were evaluated for depression with a validated self-report scale and a clinician-driven depression interview. Then exploratory statistical analyses were conducted to identify risk factors for depression as well as any interactions between variables. Their article was written in a way that was easy to read and understand overall. Several areas of concern, however, were noted that take away from the merit of the manuscript.

Major Compulsory Revisions

1. The introduction lacks a review of research on adolescents with depression (but without HIV/AIDS) in general (including risk factors) as well as specific to sub-Saharan Africa and/or Malawi. Such a review should include the epidemiological evidence that depression is the number one cause of illness and disability worldwide (World Health Organization, 2014).

2. Because the above-mentioned review is missing, whether the investigators tested a specific hypothesis or model is unclear. The fact that they examined ">70 variables" speaks to this lack of clarity. Rather, the authors should articulate a specific research question, then choose appropriate statistical analyses or, at the very least, confer their reasoning for doing such exploratory testing in their discussion.

3. Relatedly, the authors' analytical strategy was difficult to understand, especially given that no specific hypothesis nor model was delineated. Although many analyses were reportedly conducted (i.e., two-sample t-test, analysis of variance, Pearson correlation, Chi-square), several of the corresponding values are missing from the manuscript (e.g., we could not find T, F, nor r values anywhere in the tables). In addition, some of the statistical decisions made are questionable and no citations were provided to support such decisions (e.g., collapsing categories for some variables "with sparse cells or with similar outcome values", combining variables or selecting "the most important variable" when such factors were correlated). In all, the authors did not explain these decisions in any part of their manuscript, which leaves the reader confused about what analyses were utilized or omitted, what data was "important", and what might be missing.
4. The authors engaged in little discussion regarding how and why they believe the risk factors they identified as increasing the odds for depression in adolescents living with HIV in Malawi are different than those that might increase the risk for a similar population not living with HIV. One way in which this possible discrepancy might be remedied would be to include information on non-HIV sub-Saharan adolescents in the introduction, and discuss the potential differences in their discussion section, or suggest ways in which this differential might lead to a follow-up study.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I/We declare that I/we have no competing interests.