# PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

#### ARTICLE DETAILS

TITLE (PROVISIONAL)	Depressive symptoms among people with HIV/AIDS in Northwest Ethiopia: Comparative study
AUTHORS	Mekonen , Tesfa; Belete, Habte; Fekadu, Wubalem

## **VERSION 1 – REVIEW**

REVIEWER	Furr, Allen
	Auburn University, Sociology
REVIEW RETURNED	18-Jan-2021
GENERAL COMMENTS	<ul> <li>Thank you for sending this paper. I found it interesting and significant in that it recognizes and identities the importance of mental health sequelae of a physical illness. Mental health symptoms can exacerbate physical health and have a negative impact on treatment compliance.</li> <li>I have a few suggestions for improving your paper. I will list them in no particular order.</li> <li>1. In survey research, it is best to frame depression not as a diagnose but as a set of symptoms. Depression must only be diagnosed in a clinical setting and by a mental health professional. To give a diagnosis requires a full clinical interview in order to collect patient history and evaluate affect. That said, I recommend that the paper's language change from measuring depression to identifying symptoms of depression. We do not know if the people who scored high on the PHQ-9 are clinically depressed or not they simply had some symptoms.</li> <li>2. The content of the tables should be discussed more thoroughly. For example, in Table 2, depressive symptoms do not appear to be higher among the HIV group, and since this variable is not discussed, the reader is not sure how to interpret this. Also, in T4, the last variable is missing a word: "perceived quality of compared to others". I think this refers to "quality of life", and it appears to have some statistical significance, but is not discussed in the accompanying text.</li> <li>3. It might be interesting to see if variables such as marital status,</li> </ul>
	age, social support, among others, are related to depressive symptoms within the clinic group. Perhaps this could be done as
	<ul><li>an interaction or a separate analysis.</li><li>4. The paper requires editing for punctuation consistency and sentence construction.</li></ul>

REVIEWER	Green, John CNWL NHS Foundation Trust, Psychology
REVIEW RETURNED	05-Mar-2021

GENERAL COMMENTS	This is an interesting and useful study and the authors are to be commended for their efforts to get a comparable community sample. That they have not entirely succeeded is acknowledged in the limitations section. Getting a good match is important to the likely stability of the final model because the AIDS/HIV sample is combined with the community sample. That is not ideal but the methodology is transparent and, given that this is a model, I think it is acceptable.
	The paper would benefit from proof reading as there are a few very minor problems. For instance "This comorbidity between depression and HIV/AIDS have significant consequences in reducing in antiretroviral therapy (ART) responses, interfering in daily life, and leading to poor quality of life" presumably should read "The comorbidity between depression and HIV/AIDS has significant consequences in reducing antiretroviral therapy (ART) responses" And "we ran" not "we run". These should be quick to correct.

## **VERSION 1 – AUTHOR RESPONSE**

#### Review #1

Comment: Thank you for sending this paper. I found it interesting and significant in that it recognizes and identities the importance of mental health sequelae of a physical illness. Mental health symptoms can exacerbate physical health and have a negative impact on treatment compliance.

I have a few suggestions for improving your paper. I will list them in no particular order.

Response: We thank the review for the helpful comments and suggestions which further improved our manuscript.

Comment: 1. In survey research, it is best to frame depression not as a diagnose but as a set of symptoms. Depression must only be diagnosed in a clinical setting and by a mental health professional. To give a diagnosis requires a full clinical interview in order to collect patient history and evaluate affect. That said, I recommend that the paper's language change from measuring depression to identifying symptoms of depression. We do not know if the people who scored high on the PHQ-9 are clinically depressed or not -- they simply had some symptoms.

Response: We agree with the reviewer to use 'depressive symptoms" instead of 'depression'. We made this change to the whole document, including the title.

Comment: 2. The content of the tables should be discussed more thoroughly. For example, in Table 2, depressive symptoms do not appear to be higher among the HIV group, and since this variable is not discussed, the reader is not sure how to interpret this. Also, in T4, the last variable is missing a word: "perceived quality of compared to others". I think this refers to "quality of life", and it appears to have some statistical significance, but is not discussed in the accompanying text.

#### Response: We thank the reviewer for noting this point.

We agree with the reviewer that the prevalence of depressive symptoms in Table 2 seems confusing to the main result discussed. As we used PHQ-9 cut off score of 10 (moderate to severe symptoms) to categorize depressive symptoms, now we merged 'mild symptoms' to 'no depression' in Table 2. The row for 'mild' is removed. Now Table 2 clearly indicated that depressive symptoms are higher in HIV group [Page 10, Table 2). We made this clarification in the method section too [Page 6, Line 133]

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In Table 4, the variable is corrected as 'perceived quality of life compared to others' [Page 12, Table 4]. Text has been added in the discussion to indicate this variable was not statistically significant [Page 14, Line 237 - 238].

Comment: 3. It might be interesting to see if variables such as marital status, age, social support, among others, are related to depressive symptoms within the clinic group. Perhaps this could be done as an interaction or a separate analysis.

Response: We agree that analysis by marital status, age, social support, and other variables to the HIV-positive sample is important. We did an additional analysis to examine the relationship of these variables with depressive symptoms in the HIV-positive sample.

We noted that people with low social support have grater odds of having depressive symptoms in the clinical group. Age and marital status were not statistically significant.

We believe that these results need further analysis considering other potential confounders including other sociodemographic variables, HIV related stigma, adherence to antiretroviral therapy, and other clinical variables. However, we believe that these analyses are beyond the scope of the current study. Adding this result will obscure the main massage of this study, which is comparing depressive symptoms in HIV-positive sample and community sample. We will write another paper investigating these variables more thoroughly in the HIV-positive sample in the near future.

Comment: 4. The paper requires editing for punctuation consistency and sentence construction.

Response: Thank you, all authors have reviewed the manuscript and edit the misspelling, punctuation, and grammatical errors.

## Reviewer #2

Comment: This is an interesting and useful study and the authors are to be commended for their efforts to get a comparable community sample. That they have not entirely succeeded is acknowledged in the limitations section. Getting a good match is important to the likely stability of the final model because the AIDS/HIV sample is combined with the community sample. That is not ideal but the methodology is transparent and, given that this is a model, I think it is acceptable.

Response: We thank the reviewer for the supportive comments.

Comment: The paper would benefit from proofreading as there are a few very minor problems. For instance "This comorbidity between depression and HIV/AIDS have significant consequences in reducing in antiretroviral therapy (ART) responses, interfering in daily life, and leading to poor quality of life" presumably should read "The comorbidity between depression and HIV/AIDS has significant consequences in reducing antiretroviral therapy (ART) responses" And "we ran" not "we run". These should be quick to correct.

Response: Thank you, all authors have reviewed the manuscript and have identified the remaining misspelling and grammatical errors.

The statement is amended as "The comorbidity between depression and HIV/AIDS has significant consequences in reducing antiretroviral therapy (ART) responses that leads to poor quality of life." [Page 3, Line 69 -72]

"we run" is corrected to "we ran" [Page 7, Line 152]

## **VERSION 2 – REVIEW**

REVIEWER	Furr, Allen Auburn University, Sociology
REVIEW RETURNED	15-Apr-2021
GENERAL COMMENTS	Thank you for your revisions to your paper. The paper is indeed improved and most interesting to read.