

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	The Gendered Relationship Between HIV Stigma And HIV Testing Among Men And Women In Mozambique: A Cross-sectional Study to Inform A Stigma Reduction And Male-Targeted HIV Testing Intervention
AUTHORS	Ha, Judy; Van Lith, Lynn; Mallalieu, Elizabeth; Chidassicua, Jose; Pinho, Dirce; Devos, Patrick; Wirtz, AL

VERSION 1 – REVIEW

REVIEWER	Jordan Sang University of Pittsburgh USA
REVIEW RETURNED	14-Mar-2019

GENERAL COMMENTS	<p>The authors have written a very compelling and clear manuscript. Just a few comments to consider:</p> <p>Introduction: It would be helpful to add some more literature about HIV stigma, what has been found before, types of stigma etc.</p> <p>Additionally, it would be helpful if the authors could contextualize HIV testing in Mozambique. For example, any statistics on testing patterns or where most people get tested etc.</p> <p>Line 84, the authors cite the People Living with HIV stigma Index that HIV stigma is prevalent in Mozambique. This isn't particularly convincing as one would think that HIV stigma may be prevalent everywhere. Can the authors be more specific with the purpose of this statement.</p> <p>Methods The authors describe new measures they created to assess stigma but have not adequately described the process in creating these measures. Did these measures come from qualitative interviews? Were they tested before? In general, a full list of the stigma measures in the appendix could be helpful for readers.</p> <p>Results and Discussion The authors found that testing may be part of antenatal care for females. The authors may wish to discuss this further in their discussion how incorporating HIV testing in medical care for males may be beneficial.</p> <p>The authors also found that a lack of time was a barrier for getting testing. The authors also found that males get tested fewer than females, and that males are more likely to be employed. Did the</p>
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	<p>authors think about bridging these together to see if they are associated?</p> <p>Lastly, the authors found that women are more likely to endorse greater stigma towards PLWHA. Have the authors thought about how greater HIV stigma may increase HIV testing as a means to prevent the disease?</p>
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REVIEWER	Zixin Wang The Chinese University of Hong Kong, Hong Kong, China
REVIEW RETURNED	20-Apr-2019

GENERAL COMMENTS	<p>This manuscript described a large-scale cross-sectional study investigating association between HIV stigma and HIV testing among people in a province of Mozambique. The manuscript is well-written. However, I have a few concerns.</p> <ol style="list-style-type: none"> 1. The authors should provide rationale about how they choose districts within the province and sites within each districts. Such information will be important to determine whether the sample was representative. 2. The details about random household selection should be provided. Are the households randomly selected from an existing list of all households in the region or by other means? Moreover, if there are more than one eligible participant in one household, are they all invited to join the study? If it is true, potential cluster effect may exist. 3. It would be better if the authors can list out all items included in the scale measuring perceived HIV stigma within the community. It is unclear whether this scale was validated in the study population. 4. It would be better for the authors to clarify how the measures of anticipated individual stigma toward PLHIV are different from those scales developed by Genberg. 5. It is interesting that anticipated individual stigma toward PLHIV was the only form of stigma that was associated with HIV testing. The authors should elaborate the reasons behind in the discussion. 6. The authors assessed how many PLHIV did participants know, the relationship between these PLHIV and the participants also matters. It is a limitation that this study did not consider this point.
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

1. Introduction: It would be helpful to add some more literature about HIV stigma, what has been found before, types of stigma etc.

A: Thank you for this comment. We have added further information from the literature about the relationship between HIV stigma and HIV testing, prevention and care. Where possible, we've included specific findings from sub-Saharan Africa. New text has been added to the paragraph describing HIV stigma in the Introduction (3rd paragraph).

2. Introduction: Additionally, it would be helpful if the authors could contextualize HIV testing in Mozambique. For example, any statistics on testing patterns or where most people get tested etc.

A: We provide statistics on frequency of HIV testing among men and women in Mozambique, as well as other HIV care continuum statistics. Additional information has been included in the penultimate paragraph of the Introduction. We did not provide locations, as the few studies that describe these are among PLHIV and substantially comprised of women without disaggregating results by gender.

3. Introduction: Line 84, the authors cite the People Living with HIV stigma Index that HIV stigma is prevalent in Mozambique. This isn't particularly convincing as one would think that HIV stigma may be prevalent everywhere. Can the authors be more specific with the purpose of this statement.

A: Yes, we acknowledge that HIV stigma is a prevalent issue globally. The purpose of that statement was to provide country-relevant data on the prevalence of HIV stigma. We have revised this paragraph to further clarify and include an additional citation linking stigma and HIV testing in Mozambique.

4. Methods: The authors describe new measures they created to assess stigma but have not adequately described the process in creating these measures. Did these measures come from qualitative interviews? Were they tested before? In general, a full list of the stigma measures in the appendix could be helpful for readers.

A: Thank you for your suggestion. We created new measures to assess perceived HIV stigma within the community, the development of which were informed via literature review and past research. We are currently conducting psychometric analysis of the measures. We have added a comment in the Limitations paragraph to indicate that these have not yet been validated.

5. Results and Discussion: The authors found that testing may be part of antenatal care for females. The authors may wish to discuss this further in their discussion how incorporating HIV testing in medical care for males may be beneficial.

A: This is a valid point and we have added a sentence to acknowledge the benefit of incorporating HIV testing in medical care for males after the fourth paragraph of the Discussion section.

6. Results and Discussion: The authors also found that a lack of time was a barrier for getting testing. The authors also found that males get tested fewer than females, and that males are more likely to be employed. Did the authors think about bridging these together to see if they are associated?

A: Yes, this is certainly likely the case. In a separate analysis, men who were employed were more likely to report time as a barrier to HIV testing. We have added a comment to this in the results section. Employment was included in the multivariable models, but the effect was attenuated when education was included in the model.

7. Results and Discussion: Lastly, the authors found that women are more likely to endorse greater stigma towards PLWHA. Have the authors thought about how greater HIV stigma may increase HIV testing as a means to prevent the disease?

A: This is certainly a possibility, though has not borne out in the literature nor in our informal discussions locally. Marriage is one of the strongest correlates of recent HIV testing among women, likely because it is also correlated with number of child births and prenatal care/testing. Evidence suggests there is a lack of association between stigma and HIV testing among women, which is most

likely a feature of HIV testing in the context of prenatal care. We have added a comment to the limitations section of the Discussion to reflect on the reviewer's point.

Reviewer 2:

1. The authors should provide rationale about how they choose districts within the province and sites within each districts. Such information will be important to determine whether the sample was representative.

A: We have added further clarification to the site selection, indicating that Sofala province was selected for the intervention because of its reputation as a high burden province and sites were selected based on matching catchment area population size, with final selection based on security (there was ongoing conflict in the region at the time of the study) and ability to access clinical data that was required for the parent study.

2. The details about random household selection should be provided. Are the households randomly selected from an existing list of all households in the region or by other means? Moreover, if there are more than one eligible participant in one household, are they all invited to join the study? If it is true, potential cluster effect may exist.

A: Only one eligible adult participant from the selected household was invited to join the study. We have added further details on the household selection and corrected an error where it was described as a random selection.

3. It would be better if the authors can list out all items included in the scale measuring perceived HIV stigma within the community. It is unclear whether this scale was validated in the study population.

A: Given the request by both reviewers, we have included an appendix listing all stigma measures. The community stigma scale was just developed for this assessment and has not been validated; psychometric testing is underway. We have added a comment on this in the Limitations paragraph.

4. It would be better for the authors to clarify how the measures of anticipated individual stigma toward PLHIV are different from those scales developed by Genberg.

A: We have revised this paragraph to clarify the difference, indicating that the framing of the Genberg measures leave it open to interpretation as to whether these are from the participant perspective or perceived among others. The anticipated individual stigma measures were included as they are the only stigma measures identified to explicitly measure the individual participant's potential stigma or prejudice towards PLHIV. We have also included an appendix to make all items available to the readers.

5. It is interesting that anticipated individual stigma toward PLHIV was the only form of stigma that was associated with HIV testing. The authors should elaborate the reasons behind in the discussion.

A: The potential reasons for this are included in the first paragraph of the Discussion.

6. The authors assessed how many PLHIV did participants know, the relationship between these PLHIV and the participants also matters. It is a limitation that this study did not consider this point.

A: We appreciate and thank the reviewer for this suggestion. In our initial analysis, we did consider the participants and their relationship with the PLHIV in their lives, including family, friends, neighbors, and partners, though after various iterations of the model had excluded it. We have included the

number of known PLHIV again in the model as a categorical variable and demonstrate that knowing multiple people is associated with recent HIV testing. None of the other associations have changed as a result of including this in the model, however. We've updated the Results, Tables, and added a brief paragraph on these findings at the end of the Discussion.