Author’s response to reviews

Title: HIV/AIDS Stigma and Utilization of Voluntary Counseling and Testing in Nigeria.

Authors:

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Author’s response to reviews: see over
Response to reviewers’ comments

Reviewer: Emmanuel Koku

Comments

Background Section: The paper indicated that: "A systematic review of published research on HIV-stigma in Nigeria shows that very little has been done on stigma in Nigeria [8]." But a lot has been done since this systematic review, and it is recommended that the author reference some of these newer material and indicate to what extent his work differs from and adds to these existing studies on HIV stigma in Nigeria. Some representative studies are sited below, while others are available here: others available here: http://www.ncbi.nlm.nih.gov/pubmed?term=HIV%20stigma%20nigeria

Response

As suggested, a brief review of recent and newer studies has been presented in the revised manuscript. Some of these reviewed studies are:


The present study differs from the reviewed studies in the sense that there are gaps in evidence on the extent to which stigmas affect VCT uptake in Nigeria, and as indicated in the manuscript: “…empirical data on the link between stigma and VCT uptake would be highly useful for health policy current AIDS programme in Nigeria”.
2. Recruitment and Data Collection:

-- Good description of the recruitment and data collection procedure, but given the differences in size, the author needs to explain the proportion of the final sample recruited from each of the two urban centers: was the 987 equally split between the two centers?

Response

In all, 987 respondents were interviewed (493 in Osun state and 494 in Imo state).

3. Analysis of Qualitative Data: The author states: "In analyzing the transcripts from the focus group discussions, in-depth and key informant interviews, the central analysis technique was used to uncover themes and trends." -- what is the "central analysis technique? A brief explanation of this technique and its current use in qualitative research is needed - some references to support this is advisable. -- Why was this technique chosen (as compared to Grounded Theory) or other techniques to uncover underlying themes?

Response

We refer to ‘thematic analysis’ as ‘central analysis technique’. For clarity purpose, the latter concept has been used in the paper.

4. Quantitative Analysis:

(a) Construction of the stigma scale. The author notes that a stigma scale consisting of various stigma constructs (i.e., Negative Feelings, Coercive Attitudes, Attribution of Blame, Avoidant Behaviors, Symbolic Contact and Interaction) was created with an alpha of 0.75. It seems the author is referring to an overall stigma index (as shown in Table 4). Given that different sub-scales tap into different stigma constructs, more explanation (for example, using results of the confirmatory factor analysis) is needed to support the construction of a single overall stigma index. Secondly, what is the alpha (internal consistency) of each of the different sub-scales - 0.75? A table summarizing the individual questions/items for each sub-scale / stigma construct will help clarify the development of the stigma measures. For more details, re problems inherent in construction / reporting of HIV stigma scales, the author can consult Becky L. Genberg et al (2009): A comparison of HIV/AIDS-related stigma in four countries; Negative attitudes and perceived acts of discrimination towards people living with HIV/AIDS. Social Science & Medicine 68 (2009) 2279–2287.

(b) Logistic Regression: The author presents a single model estimating the odds of VCT utilization. The findings are informative, and confirm those from extant research. However, I believe there is scope for more analysis of the data presented here. For example, Table 3 and qualitative interview data reveal ethnic and gender differences in attributions and experiences of stigma. Using interaction models, the author could have evaluated the extent to which the effect of stigma (and its various constructs) on VCT uptake is mediated by gender and
ethnicity. It is not clear whether the author tested for such effects; if not, an additional (nested) model could be developed to test for this. Similarly, if the construction of the "overall stigma index" is justified, substantively and technically, then the inclusion of both the 5 individual sub-scales as well as the "overall stigma index" in the same regression model could introduce some noise. Alternatively, the author could introduce the "overall stigma index" separately and test its contribution to the model fit.

Response

The present study is an exploratory study, hence we dwelt much on the qualitative component in our analysis. The quantitative analysis was done just to support the qualitative findings.

It was our intention to pursue the line of idea given by the reviewer. However that would not be possible because our computer systems where the data files were saved got corrupted. We lost all the files.

Reviewer: Marinda Kotze

Comments

The revisions suggested below are considered to be minor but essential:
1. Research Question
1.1. The research question is clear. Although the link between HIV-stigma and VCT access and usage has been explored in the past, it seems that there is a need for more research on this topic in Nigeria. The research is therefore of importance.
1.2. The main focus of this paper is on the access and use of VCT services and its relation to HIV stigma. However, throughout the paper the author sometimes refers to HIV/AIDS prevention services or care, treatment and support services instead of VCT services. There are slight differences between these services. Consequently it is suggested that the author keeps to the term VCT throughout the paper in order to avoid confusion.

Response

Without proper utilization of VCT, HIV/AIDS treatment and prevention services is likely to face barriers because unhindered access to VCT uptake is an integral component of HIV/AIDS prevention and treatment service. To address the comments here, (where necessary) the term VCT has been used in the paper.

Comments

2. Background
2.1. When discussing the background of the research topic, the author could include a short discussion on VCT access and usage in Nigeria. Also include a discussion on the findings from recent similar studies in other African countries and internationally. (Of special interest to you may be: Kalichman, S.C., & Simbayi, L.C. (2003). HIV testing, AIDS stigma, and voluntary HIV counselling and testing in a black township in Cape Town, South Africa.
Response

A brief review has been written on the VCT access and uptake in Nigeria and sub-Saharan Africa. Some of the studies cited are:


Comments

2.2. To improve the flow of the discussion it is suggested that the author moves the last two paragraphs under the heading ‘Background’ upward (perhaps it could fit between paragraphs 5 and 6). In this way the section will end with the specific description of the study and research problem statement which flows into the methodology.

Response

The last two paragraphs in the background section have been moved upward, and they now become 6th and 7th paragraphs in the background section.

Comments

3. Methodology

3.1. Throughout the paper the two ethnic groups from which the sample is drawn, Igbo and Yoruba, are contrasted with each other. Although you mention (under the ‘Background’ heading) that “…it is important to know which social groups are most likely to experience stigma and its adverse consequences so that limited public resources can be used in the most effective way” I still feel that you must discuss why you chose those two groups and why you contrast them in your study. In particular, please provide some background information on each group and how they may differ. These differences may help to explain the differences in stigma/HIV beliefs between the groups.

Response

While the two states – Imo and Osun were chosen for the sake of convenience, these two states are predominantly occupied by Igbo and Yoruba respectively.
To make brief discussion about the two ethnic groups, the following has been included as footnote in the manuscript (under methodology section):

“The two ethnic groups included in this study – Igbo and Yoruba are the two major ethnic groups in the Southern part of Nigeria and two of the three major ethnic groups in the country. The two groups have different socio-cultural values. In terms of development indicators, the two ethnic groups are the most educated and the most urbanized in the country, with South-west, where Yorubas are concentrated being the most advanced socioeconomic hub of Nigeria in terms of infrastructures, education and non-organizational activities”.

**Comments**

3.2. Upon reading the paper for the first time the reviewer found it difficult to understand exactly how data for the quantitative and qualitative analyses where collected. It is suggested that the author makes a clearer distinction between the quantitative data collection and analysis and the qualitative data collection and analysis. This can be done by separating the sections with sub-headings.

**Response**

Qualitative and quantitative data collections have been presented under separate sub-headings in the methodology section

**Comments**

3.3. Please indicate the total number of interviews and focus groups that were held as well as the total number of participants who took part in the interviews and focus groups.
3.4. In the second paragraph under the heading ‘Recruitment and data collection’ the author notes that “The size of the focus groups ranged from 6 to 9 of each category selected”. Please clarify how many participants attended each focus group and whether the groups were heterogeneous or homogeneous.

**Response**

There were eight focus group discussions with community health staff, young and adult community members. The size of each focus group ranged between 6 and 9 members, who in all the cases were taken from the same socio-economic background.

**Comments**

Why did the author choose to use both interviews and focus groups? Using focus groups as a data collection method for HIV stigma may be a bit problematic, considering the context and sensitive nature of the issue. Could it have been possible that some focus group participants did not feel comfortable to voice their beliefs/opinions if it differed from the majority of the group? Were the focus groups open enough for less dominant voices to emerge in the groups? How was the issue of social desirability and power addressed within the group?
We used focus group discussion because the study was designed to solicit information from participants not on their own perception but on the community perceptions, feelings and attitudes towards people living with HIV/AIDS as well as the community perception about the utilization of voluntary counselling and treatment. As indicated in the paper: “The focus group discussions and in-depth interviews centered on community perceptions of, attitudes to stigma, people living with HIV/AIDS etc.”

Comments

3.6. In the context of this study, what was the difference between an in-depth interview and a key informant interview? It seems that both included similar participants. Please make the distinction between the two clear.

Response

The distinction between in-depth interview and key informant interview has been made in the paper as follows:
“Eight key informant interviews were conducted with community leaders, traditional rulers and religious leaders in order to obtain information on the community perceptions and opinions about HIV/AIDS pandemic and attitude towards VCT uptakes in the communities. In addition, eight in-depth interviews were conducted with religious leaders to solicit information on religious beliefs about HIV/AIDS as well as beliefs about death due to AIDS as compared to death due to other causes”. The participants in the in-depth interviews were selected from the focus group discussants based on their knowledge of the issues of investigation. For instance a focus group discussant who expressed knowledge of how stigma affects people’s behaviour or indicated that they know people who have had negative consequence of stigma, were selected for detailed in-depth interviews”.

Comments

3.7. In the second paragraph under the heading ‘Recruitment and data collection’ the author mentions that the research assistants were trained in methodologies involving triangulation. Please discuss what triangulation entailed within the context of this study.

Response

It has been written in the paper that “triangulation was used in this study to obtain information on HIV/AIDS disease, attitude to people living with HIV/AIDS (PLWHA) and attitude towards VCT utilization from different standpoints, using qualitative and quantitative approaches.

Comments

3.8. Please indicate how the participants were chosen (for the interviews and focus groups) and invited (for interviews, focus groups and surveys).

Response

Done.
Comments
3.9. It is suggested that the term ‘survey’ or ‘home visitation survey’ is used throughout the paper to refer to the quantitative data collection procedure, as this will help to clarify how the data was collected.

Response
“Home visitation survey” has been used in the paper to refer to method of quantitative data collection

Comments
3.10. In paragraph five under the heading ‘Recruitment and data collection’ it is mentioned that although 1200 respondents were expected only 987 were interviewed. Why were only 987 participants interviewed?

Response
We have indicated in the paper that “987 respondents who volunteered and gave consent to participate in the study were interviewed” We did not reach the target as some of them defaulted

Comments
3.11. Also in paragraph five under the heading ‘Recruitment and data collection’ the author notes that residents from the area were recruited as research assistants. Did these research assistants do the interviews/visit the households to complete the surveys? If so, were they remunerated? Were they trained in research methods and ethics? Would respondents feel comfortable to discuss HIV stigma (a sensitive issue) with a fellow community member? If the research assistants and respondents knew each other this could potentially have had an influence on the respondents’ answers.

Response
The research assistants were trained well on all research processes including how to conduct both quantitative and qualitative surveys and observe ethical practices. The research assistants were told to inform the participants in their introductory remarks that “the study is being conducted to solicit information about the community (not their personal) perceptions and attitudes on issues relating to HIV/AIDS, attitudes to PLWHA and stigmas, as well as attitudes to VCT utilization”. As indicated in the paper: “The focus group discussions and in-depth interviews centered on community perceptions of, attitudes to stigma, people living with HIV/AIDS etc.”

Comments
3.12. It is suggested that the author move the second and third paragraphs under the heading ‘Analysis of quantitative data’ upward so that they fall under the heading ‘recruitment and data collection’. This is suggested because the paragraphs focus on the survey structure and content.
**Response**

As suggested, paragraphs two and three under sub-section – ‘Analysis of quantitative’ has been moved upward to sub-section: ‘recruitment and data collection’

**Comments**

3.13. The author notes that central analysis was used to analyse the qualitative data. Please provide a short description of the technique and explain why this specific technique was chosen.

**Response**

We refer to ‘thematic analysis’ as “central analysis technique”. For clarity purpose, the latter concept has been used in the paper.

**Comments**

3.14. The author notes that logistic regression analysis was used to analyse the quantitative data. Please provide additional information on how the regression model was developed.

**Response**

We have included the following in the paper:

“Logistic regression model was developed such that the model could predict the likelihood of utilizing counselling and testing services for HIV status in the study locations, after controlling for measures of stigma and socio-economic characteristics” We tested for multicollinearity and did not find any correlation between factors.

**Comments**

4.1. Table 1 seems to only include the demographic information of the survey respondents. It is suggested that the author also include similar information for the participants who attended the interviews and focus groups. In addition, the last three categories in Table 1 (frequency of reading newspapers, listening to the radio and watching TV) may be omitted as the data does not form part of further data analysis. (Note: under the heading ‘frequency of listening to the radio’ the ‘don’t know’ option does not have a percentage).

**Response**

?????

**Comments**

4.2. The mean age of the participants are reported to be 32 years with a standard deviation of 12.9. This indicates that the participant sample differed greatly in terms of age (possibly more older participants?). The issue of age and its role in HIV stigma beliefs may need to be discussed a bit more in the paper.

**Response**

This is discussed briefly as suggested.

**Comments**

4.3. Table 2 refers to the participants ‘beliefs’ of HIV transmission. It is suggested that the author consider referring to it as ‘HIV knowledge’ as the information gathered from the
survey seems to reveal more about their knowledge of HIV than their general beliefs. How one believes HIV is transmitted is more an indication of one’s knowledge of HIV than one’s personal opinion. Similarly, consider changing the word ‘misconception’ about HIV/AIDS to ‘lack of knowledge’ about HIV/AIDS.

**Response**
Table 2 caption has been changed in the manuscript from “Percent distribution of respondents’ beliefs on HIV/AIDS transmission, Nigeria” to “Percent distribution of respondents’ beliefs about knowledge on HIV/AIDS transmission in Nigeria”

**Comments**
4.4. Table 2 contains two percentages at the top: awareness of HIV/AIDS and awareness of HIV prevention. Please indicate how these percentages were calculated.

**Response**
How the percentages were computed has been footnoted in the manuscript as follows:
3 Percentage of respondents who reported awareness of HIV/AIDS
4 Percentage of respondents who reported awareness of mode of HIV transmission and prevention

**Comments**
4.5. Table 2 has an extra open line at the bottom that can be removed.

**Response**
The extra line in Table 2 has been removed.

**Comments**
4.6. It is suggested that Table 4 should be adjusted slightly. Separate the lower and upper confidence levels into difference columns so the distinction is more clearly visible. The second column should include the regression coefficient (B) as well as the Standard Error.

**Response**
Suggested correction has been carried out in Table 4.

**Comments**
5.1. As mentioned in this revision under the heading ‘Methodology’ the distinction between the two ethnic groups needs to be considered carefully. The difference in their results could be the result of differences in education and available HIV-awareness resources as well as cultural beliefs, religious beliefs, HIV-prevention initiatives present in the different communities and participant age. These differences must be explored more closely in the paper’s interpretation of the data.

**Response**
Except for differences in beliefs and cultural values, the two ethnic groups have some things in common. They are the two most urbanized and most educated tribes in Nigeria. Their similarities and differences have been drawn under the methodology section.

**Comments**
5.2. The author uses the words ‘consensus’ and ‘common agreement’ in some instances to refer to the observed unanimous agreement of participants on a particular issue. This is problematic as a researcher can never be truly certain that 100% of one’s participants agreed on a particular issue. How can this be verified? It is suggested that the author rephrase such statements.

Response
These statements have been recast as follows (in the manuscript):
“Such excerpts are the views expressed by the majority of the discussants”
“The common view was that…”
“There is a common view that infected individuals are sexually promiscuous”

Comments
5.3. It is suggested that the author links the findings with previous academic findings and theories that may help to explain the present study’s findings. Consider how the findings are similar and/or different from existing literature and theory.
5.4. Under the heading ‘Support for coercive policies’ paragraph 5, the author discusses the inconsistency between respondents’ answers regarding having an infected relative’s name in public and the public display of infected people’s names. This inconsistency could be explored further. It is suggested that the reason for such an inconsistency could be that, as noted in social psychology theory (in-group out-group bias), the rules that apply to the ‘out-group’ do not necessary apply to the ‘in-group’. It may be seen as acceptable to display the names of HIV-infected ‘others’ but not the names of those that is considered to be an insider/a member of the ‘in-group’ (such as a family member).
5.5. Apart from the differences in ethnic groups, the findings also reveal noteworthy gender differences. It is suggested that the author explore these gender differences in more depth. What could explain these differences? What are the implications of these differences? The finding that female respondents were less likely to use VCT services compared to men contrasts previous literature. Discuss this contrast in more depth.

Response
As suggested, the discussion has been strengthened and the findings are discussed in more depth, particularly in conclusion section.

Comments
5.6. The quote in the last paragraph under heading ‘negative/affective feelings towards PLWHA’ does not have the necessary information on who said it.

Response
The mentioned quote does not have any information on who said it because the statement was a view expressed by a number of FGD participants. We indicate this in the opening statement of this paragraph in the manuscript as:
“Some of the respondents agreed that the society expresses anger to infected individuals because…”

Comments
5.7. Under the heading ‘Stigma and utilization of VCT services’, paragraph two, the author writes that: “Respondents who are single were 2.3 times more likely to express intention to use VCT services than the married.” This interpretation is not technically correct. The 2.3 refers to the interval with which the likelihood to use VCT services increases, but it does not
mean that a single person is 2.3 times more likely to use VCT services compared to a married person.

**Response**
A change has been made in the manuscript as follows:
“The odds of expressing intention to use VCT services among the unmarried was 2.3 compared to the married respondents”.

**Comments**
5.8. Under the heading ‘Stigma and utilization of VCT services’, paragraph two and three: the results can be written up in a more concise way by grouping the results into two categories, namely those who were more likely to use VCT and those who were less likely to use VCT. For example, “Respondents who were more likely to utilize VCT were more educated, did not report avoidant behaviours, etc…”

**Response**
The result has been rewritten in the manuscript as:
“Urban respondents were more likely to expression intention to utilize VCT services than the rural respondents. The Yoruba respondents also showed more likelihood to use VCT than their Igbo counterparts. The educated respondents of different categories expressed more likelihood to use VCT services than the reference group. Conversely, female respondents were less likely to use VCT services than their male counterparts, and other religious groups were less likely to intend to use VCT services than the reference group of Protestant religion”.

**Comments**
5.9. Under the heading ‘Stigma and utilization of VCT services’, paragraph three and four: The transition from paragraph three to four is very sudden. It is suggested that the author creates a link between these paragraphs to aid the flow of the discussion. Consider adding a sub-heading before paragraph four or adding a linking paragraph/sentence.

**Response**
Connecting word – ‘further’ has been used to link paragraphs three and four under ‘Stigma and utilization of VCT services’ sub-section

**Comments**
5.10. It seems that one of the key findings to come out of this paper is that a significant number of people still associate HIV with sexual promiscuity, which drives stigmatic beliefs around HIV/AIDS and health care services related to the disease. This could be reiterated in the conclusion as a way of framing the recommendations that are based on the findings of the study.
5.11. In the first paragraph under the heading ‘conclusions’, the author could add that based on the result that less media access is associated with less access and usage of VCT services, the role of the media as a means of educating the public and creating awareness about VCT services is vital and should be explore further. Ways of informing the public that involves other methods should be investigated.
5.12. In the second paragraph under the heading ‘conclusions’ the author could add that the present study found that some religious leaders expressed the willingness to become more
involved as peer educators and that religious leaders must be used as a resource in communities.

5.13. In the fifth paragraph under the heading ‘conclusions’ the author could add that the present study found that many people still lack adequate HIV-knowledge which may contribute to HIV-related stigma. Also, please elaborate on the recommendation that the gender dimensions of stigma should be addressed. Present ways in which gender-related issues can be addressed in the context of HIV stigma.

Response
The suggested inputs to the conclusion section of the manuscript have been made.

Comments
6. Limitations
6.1. The only limitation that the author notes is that the two areas that were selected do not constitute the representative areas of Yoruba and Igbo ethnic groups and that this may have cause a biased results (under the heading ‘Stigma and utilization of VCT services’, paragraph nine). It is suggested that the author tends to the limitations of the study in a more formal way, perhaps under a specific heading titled ‘limitations’.

Response
A separate section on ‘Limitation’ has been added to the manuscript

Comments
7. Title and abstract
7.1. It is suggested that the author considers omitting the quote from the title as it does not reflect the true message of the study. The study is about the association between HIV stigma and VCT usage, yet the quote was said in the context of a husband who said that he would reject his wife if she tested HIV-positive. Instead, choose a quote that speaks directly to the study’s focus or just use the second part of the title.

Response
We have made use of the second part of the title as:

“HIV/AIDS Stigma and Utilization of Voluntary Counselling and Testing in Nigeria”

Comments
8. Writing
8.1. Although the paper is well written it is suggested that it is edited by a professional language editor.

Response
Proofread by a professional language editor

Comments
8.2. Check that terms and names that have acronyms are introduced with the acronym in brackets, followed by the consistent use of the acronym (see: HEAP, PLWHA, VCT, IEC).
Response
Full meanings of acronyms have been added to the manuscript. These include:
HIV/AIDS Emergency Action Programme (HEAP)
People living with HIV/AIDS (PLWHA)
Voluntary counselling and testing (VCT)
Information, education and communication (IEC)

Comments
8.3. When referring to other studies please provide the references to those studies. For example, paragraph 3 under ‘analysis of quantitative data’ heading: “Studies have shown a correlation between these beliefs and stigma conditions” – kindly add the references.
8.4. When discussing the results it is suggested that the author use percentages instead of saying, “7 out of 10 participants”, as the use of percentages are considered to be more scientific.
8.5. It is suggested that the author finds a smoother way to transition from the discussion to the participants’ quotations as it seems to be a bit abrupt at present. Consider using linking sentences to link the discussion and quotations in a neat way.

Response
These comments are addressed as necessary and relevant studies such as Okoror et al (2013) and Owolabi et al (2012) have been added.

Comments
8.6. Revise the reference list in accordance with the BMC’s style.

Response
Reference list has been formatted in accordance with BMC’s style.