Author’s response to reviews

Title: Correlates of Reported Modern Contraceptive Use among Postpartum HIV-Positive Women in Rural Nigeria: An Analysis from the MoMent Prospective Cohort Study

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Response to Reviewers

To the Editor

Reproductive Health Journal

December 10, 2018.
Dear Editor and Reviewers,

Thank you for the review and constructive feedback for our manuscript. We appreciate the raising of these points towards making our manuscript better. Please see our point-by-point responses below.

REVIEWER REPORTS:

Reviewer #1:

Thanks for adding to the body of knowledge on reproductive health.

1. Abstract- it does not attract readers’ attention, you can include the introduction and objective. No conclusion in the first part of the abstract. Response: Thank you for the feedback. Reproductive Health journal’s formatting guidelines request for a structured abstract headlined as Background (not Introduction), Methods, Results and Conclusions, which is what we complied with. The last sentence in the Background section serves as the objective, which we have revised to make it more obvious. We have also made some adjustments to the rest of the abstract for better readability and appeal.

2. The content in your abstract matches the body of your manuscript. Response: Thank you.

3. On the body of the manuscript try and include a brief description of your study site. Response: A brief description of the MoMent study sites has been included in the Methods (Study Design and Setting) as follows: Using criteria based on duration of PMTCT service provision, ANC clinic flow, numbers of HIV-positive women identified, staff strength, and EID service availability, the 20 study sites were selected from 102 available PHCs and assigned to intervention or control arm as matched pairs (22). These 20 PHCs were located in 20 different towns and villages spanning nine local government areas (districts) (26), and were each staffed by 4 to 6 PMTCT providers comprising largely nurse-midwives and community health extension workers.

4. Sampling - no sample calculation. Response: Description of how the sample was derived has been added to the Methods (Recruitment Procedures) as follows: Since this was a sub-study within the larger prospective MoMent study, the sample available for this analysis was limited to the sample recruited for the MoMent study overall. Details of the sample size calculations have been published in the protocol paper (22). Ultimately, 497 women were recruited in the prospective study as follows: HIV-positive pregnant women were recruited from antenatal care (ANC) clinics of study PHCs to receive either structured support or
routine peer support. Eligible participants were aged 15 years or more, had made a minimum of one ANC visit before delivery and planned to continue receiving antenatal and postnatal care at their PHC of recruitment (22).

5. Page 8 you stated that your participant were from age 15 and above. Did you consider the ethical implications of the age and if so, kindly state it in your ethical review subheading. Since you have under age children, did you take their consent before the research? Response: The study was reviewed and approved by the Nigerian National Health Research Ethics Committee (NHREC), and subsequently by the WHO and the University of Maryland Baltimore. We justified inclusion of 15 year old pregnant, HIV-positive women in the study because adolescents and young women are an understudied population and we had little knowledge of their maternal-infant outcomes in PMTCT. We also argued that these young women, by virtue of their pregnancies could be considered mature enough to consent for themselves to participate in the study and to provide consent for their infants as well. NHREC accepted our justification and so did all other relevant IRBs. We have added a brief narrative in the Ethical Considerations section as follows: All approvals allowed for the inclusion of participants 15 to less than 18 years of age as they were considered able to provide written informed consent for research participation due to their status as pregnant women.

6. Still on the ethical issues- how did you address stigmatization knowing fully well that the research was carried out in the PHC close to the communities of participants? Response: The issue of community-level stigma was a key consideration as the study was planned and implemented. First, while there were orientations of study site healthcare workers, routine peer supporters and intervention Mentor Mothers about the study, the community was not widely informed about the study, except for the participants who were interviewed as part of the formative qualitative sessions. Furthermore, the study’s intervention was structured peer support provided by HIV-positive women living in the community; as such, these women to some extent mitigated the issue of community stigma by conducting their client interactions with confidentiality. Mentor Mothers were contractually required to maintain confidentiality in their work duties; when clients were uncomfortable with home visits, allowances were made for Mentor Mothers to meet these clients at “safer” locations. All standard logbooks used by Mentor Mothers were generically labeled and the term “HIV” did not appear. A summary on safeguards against community-level stigma is provided in the Ethical Considerations section as follows: Safeguards against intense community-level stigma for participants included contractual requirements for Mentor Mothers to maintain client confidentiality especially with regard to HIV status, the option to arrange client visits at alternate locations if home visits were not acceptable, and use of generically-labeled Mentor Mother logbooks that did not include the term “HIV.”
7. Table- content of the table matches the discussion on the table. Response: Thank you.

8. Reference- up to date. Response: Thank you for the feedback.

Reviewer #2:

The manuscript provide an important insight into factors influencing contraceptive use among HIV positive women. However, I have few comments for the authors:

1. Contraceptive use in Nigeria is influenced by variety of factors some of which include; education level and religion (http://www.ijhssnet.com/journals/Vol_4_No_6_April_2014/23.pdf), autonomy, access to health facilities (https://dhsprogram.com/pubs/pdf/WP120/WP120.pdf), fear of perceived side effect, ignorance, superstition and culture (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3797631/), among others. These are social and cultural variables which have been implicated as factors determining contraceptive use among the general population. Interestingly, this study focuses on sociodemographic and socioeconomic variables. In the body of the paper, only 5 socio-demographics variables were examined including religious affiliation and educational level which were not significant predictors of contraceptive use. If this is so, the author need to provide more insight as to how this finding apply to the population of interest, considering that these were significant predictors in among the general population.

Response: Thank you for raising this important point—we certainly did have contradictory findings to prior studies among other women living with HIV in other African countries, and differences with study findings among Nigerian women in general with respect to religion and education as predictors of modern contraceptive use among women. We have added a narrative in the Discussion section to address this feedback as follows: Our results further indicate that educational level, religious affiliation and employment status did not correlate with modern contraceptive use in our cohort. These findings contradict results from similar studies among HIV-positive women in other African countries (35, 38, 39). Our findings also contradict previous studies conducted among Nigerian women in the general population. For instance, Adebowale et al reported that married women who were more educated/earned more than their husbands or were employed were more likely to use modern contraception, whereas Muslim women were less likely to do so (58). Ejembi et al identified level of education as a positive predictor of modern contraceptive use among Nigerian women; Muslim religious affiliation was also a negative correlate (59).
It should be noted that our study population differs from the comparators, in that ours was a sample of <500 HIV-positive women in rural communities, whereas the other Nigerian reports were nationwide Demographic and Health Surveys among tens of thousands of women across both rural and urban communities. Our smaller sample size and narrow geographical scope may have limited our ability to identify religion, employment and/or education as correlates of modern contraceptive use. Within our cohort, educational status and Christian religious affiliation were positively associated with facility delivery (23), however, not for post-partum modern contraceptive use. The role of HIV-positive and/or rural status with regard to education, religion and employment as correlates of modern contraceptive use in Nigeria is unclear. This needs to be further explored. The paucity of relevant published data from our local study setting makes it challenging to assess our findings in the context of prior evidence. Of note, one study conducted among ~400 HIV-positive women in Christian-dominant South-East Nigeria also reported non-correlation of education (primary vs post-primary) and religion (Catholic vs Non-Catholic) with the use of modern contraception (60).

2. I was interested to know the proportional variation in educational level of respondents. The data presented show that one category had 50.7% and the other 49.3%. The categories presented here are just between <secondary level and >secondary level. To me is faulty as it may not truly reflect hidden variations in the educational level of respondents. The appropriate categorization, especially for those in rural areas, would have been: No schooling, primary, secondary, tertiary. This is very important because, if respondents are clustered between primary and secondary education, then an explanation as to why education is not significant could be provided. I suggest that authors should re-categorise and re-analyse. If available data will not avail then this should be stated as a limitation. Response: The education variable has been re-categorized accordingly, as shown in the updated Tables 2 and 3 in the manuscript. Similar to the previous result, the revised education variable showed no statistically significant association with reported use of modern contraceptives. The explanation as to why education was not significant is included in the response to Reviewer 2’s Comment 1 above.

3. The data presented is generally scanty. I will like to see a correlate of these socio-demographics by the type of contraceptive used. This may provide further insights. Response: A sub-analysis was performed as indicated. Contraceptive use was categorized into condom and hormonal use. Sociodemographic correlates of use of these types of contraceptives were regressed and presented in a new table labeled “Table 4”. Exposure to structured Mentor Mother support vs routine peer support was also added as a variable for the analyses in Tables 2, 3 and 4. Accompanying Table 4 narrative has been added as follows: We further analyzed separately for correlates of the most frequently reported contraceptives: male condoms and oral hormones. Table 4 shows that when condom use was
compared to no contraception, exposure to Mentor Mother support was associated with decreased odds of reported use (aOR = 0.2, CI: 0.1 – 0.4; p<0.01). Conversely, women who had disclosed had higher odds of reported condom use (aOR = 4.9, CI: 2.3 – 10.6; p <0.01). For oral hormones versus none, women with more than 4 children had lower odds of reported use (aOR = 0.2, CI: 0.0 – 0.9; p= 0.04). Family planning counselling was not associated with reported use of either type of contraception when analyzed separately.

Additional update in Discussion:

1. In the second paragraph of the Discussion, we have added commentary on the popularity of (single) condom use in our study cohort, which is similar to that reported from other studies. We believe that this brings up an important point regarding male condoms and the challenges of their correct and consistent use, especially in settings similar to that of our study, and strengthens the argument for dual protection, the use of more effective, user-friendly modern contraceptive methods and strong considerations for gender empowerment as part of family planning. The narrative is as follows: The predominance of reported male condom use among women in our study and others is expected, despite their lower failure rates in the prevention of unintended pregnancies (28). Unfortunately, the uptake of more effective contraceptive methods such as male/female sterilization, implants, and intra-uterine devices is limited by multiple factors including poor knowledge, myths, misconception and fear of side effects (29, 30). However, unlike condoms, these methods are unable to prevent sexually-transmitted infections (28). Even when women desire consistent condom use, gender power imbalances may affect their ability to negotiate with their partners (31-33). The practical and socio-cultural challenges of condom use (whether alone or as dual protection) among HIV-affected couples need to be further explored, with the development of counter-strategies in mind.