Reviewer's report

Title: Actual Sexual Risk and Perceived Risk of HIV Acquisition Among HIV-Negative Men Who Have Sex With Men In Toronto, Canada

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Reviewer: Ademola Ajuwon

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Title of Paper: Actual Sexual Risk and Perceived Risk of HIV Acquisition among HIV-negative Men Who Have Sex With Men in Toronto, Canada

This manuscript presents findings from a well planned and executed research aimed at assessing the relationship between perceived and actual risk for acquiring HIV among a cohort of men who have sex with men in Toronto. The analysis of the data collected was adequate and the manuscript is also well-written. However, there are some issues which the authors need to address before the paper can be recommended for acceptance for publication in BMC Public Health. The details of the issues are provided below:

1. The authors reported that they collected biological samples namely blood, urine and self-collected anal swab, as a component of the study, but did not describe how these data were analysed nor present the results. More importantly, the authors need to describe the relevance of these data to the behavioural risk analysis performed. The authors should clarify whether these data have been presented elsewhere or they plan to do so later. This should be addressed.

2. The authors need to describe how HIV tests were performed since the HIV status of the men attending the Maple Medical Clinic were not known at the time they show up at the clinic.

3. The way in which component scores described in line 178-180 (page 8) were computed is not clear. What is the maximum scores into which the three categories of low, medium and high scores were derived? Please clarify.

4. There is confusion about the procedures for data collection; in line 138 the authors stated that they used secondary data derived from HIV-negative men enrolled in Toronto… but later describe how data were collected from consenting men… page 7. This should be
clarified. There is need to fully describe how the men who participated in the study were recruited from the clinic; at which point (before, while doing so or after being attended to by their physicians) while in the clinic were these men approached and invited to participate in the study? How many of such men were approached and how many of them actually agreed to participate in the study? This should be clarified.

5. The scores developed by the authors are not clear; there is need for a fuller description of the total scores and how these were categorized to enable readers understand the meaning of the data presented in the Results section.

6. The data on marital status was not shown on Table 1 even though the authors refer to it.

7. I suggest the authors create sub-headings (demographic profile, sexual risk, perceived risk) for the results to make it easier for readers to understand the data. In addition, I suggest that the authors present more of the data collected. The author may for example create a Table to show scores for perceived risk and actual risk practices. I want to draw the authors attention to the fact that the p-value for those aged 50-59 is actually significant (see Table 3) even though the authors report that this was not so. There is need to have a row on the right for totals on Table 1. The total for data on Table 1 do not add up to 150; the authors may need to explain why this is so in the text.

8. The arrangement of the references on line 289 (32, 33, 7) should be in a chronological order.

**Are the methods appropriate and well described?**

If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**

If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**

If not, please explain in your comments to the authors.

Yes
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?

If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English

Please indicate the quality of language in the manuscript:

Acceptable

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