Reviewer’s report

Title: The characteristics of mixing patterns of sexual dyads and factors correlated with condomless anal intercourse among men who have sex with men in Guangzhou, China

Version: 3  Date: 29 Apr 2019

Reviewer: Oliver Stirrup

Reviewer's report:

I personally would not have removed the ORs from the Abstract, although I understand that interpretation is often difficult without full details of the Methods employed. This is perhaps not too critical for an Open Access publication, for which anyone can access the full text.

I can't see the chi square tests (specified in the Methods) mentioned anywhere in the Results of the article. A standard 'Pearson's chi-squared test' would not account for the clustering by respondent present in this data. I am now wondering whether this statement relates to variable selection within the multivariable modelling by likelihood ratio tests (which use a chi-square statistic)? Either way, this should be clarified.

The authors have added the following regarding the probability of CAI according to respondent characteristics: "The probability of CAI varied according to respondent characteristics, participants 18-25 years old, with undergraduate education and, lower income(<60000) who were unmarried were more likely to engage in CAI." I would still prefer a summary of %s in each of these groups - why not report this information? It is relevant to interpretation of the rest of the results presented.

Some of the statements regarding power dynamics in the Discussion are wholly speculative, and should be phrased as such, for example:

"Thus, seniority in age can be assumed to make older MSM more assertive during sex by giving them more bargaining power"
"Our research indicates that highly educated MSM face resistance to the use of condoms during sex with assertive partners who may lack knowledge about HIV and that highly educated MSM may choose to avoid using condoms to cope with psychosocial vulnerabilities and to create intimacy with other MSM"

Where there is no direct evidence, the authors should be clear that they are speculating regarding the nature of the relationships. The authors should also be clear how they are using previous studies in different settings to support any such speculations.

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:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:
1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?
4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?
6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests
I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.