**Reviewer’s report**

**Title:** Lifetime prevalence of suicidal ideation among men who have sex with men: a meta-analysis

**Version:** 0  **Date:** 09 Aug 2017

**Reviewer:** Jeremy Goldbach

**Reviewer’s report:**

Feedback/Suggestions to Author:

Abstract, Introduction and review of literature. The authors have organized the abstract well, addressing all the essential aspects. The authors have provided an overly scant review of literature/ knowledge on the subject in the background section. The background could be strengthened with more information on rationale for the study, its importance and review of existing literature. In addition, in the first paragraph the authors have singled out Canada, while the current study has utilized international sample. Since the sample includes studies conducted across the globe, it would also be essential to address that, and how environmental factors associated with regions may impact these rates. Also, in the abstract and further in discussion, the authors have discussed various factors (like, age, HIV status and sampling method) that have an association with suicidal ideation estimation, however they have not discussed or reviewed factors in the introduction.

Methods. The authors have presented a succinct account of methods employed for conducting the review, adopting PRISMA guidelines, eligibility criteria, data extraction, quality assessment, and analyses. However, there are some serious concerns over categorizing studies as random and not-random sample in subgroup analysis; and inclusion of some studies. The authors have categorized the sampling method used by Diaz (2001) or Yi (2016) as random sampling methods, which may not be accurate, as they have employed very similar methods to venue-time-based sampling, who the authors for other studies (for example, Sheridan 2009) have categorized under non-random sampling. Kim (2016) used school-sample (YRBS data) from Korea, and the authors must address why a study based out of school-sample is included in MSM suicidal ideation study. Also, they should note there are several school-based studies using very similar measures that have been published in the US and elsewhere, and have not been included in this systematic review. This also pose questions on including and comparing adolescent population in a review on suicidal ideation among MSM, and need to be addressed.

Results: The authors have done a good job at describing the analyses process or reporting results. The results and the tables have been presented in scientific manner. Under the sub-group analyses, the authors have examined the suicidal ideation estimates by lifetime and recent reporting, age, HIV status and sampling method. As for age, authors have divided the studies between less than 18 years and more than 18 years, with only two studies falling in the first
category. This might not be a true representation of the estimates for young adults/adolescents; also, the factors and issues impacting suicidality among these and older population differ on many counts. The authors may want to address why were sample with less than 18 years (2 studies) were included in the pooled prevalence of MSM study. Authors, may also want to define MSM in the beginning of the paper, and who all they include. Another issue is in regard to reporting chi-squares and p-values for sub-group analysis, the sample size (number of papers) in some categories is too small to detect the difference (since chi-square is sensitive to sample size).

The later sections on discussion, limitations and conclusion were mostly found adequate and in congruence with the results and literature. Overall, this is certainly an important topic, but, the paper requires some clarification on the assumptions and choices made at the design and analysis stage. For example, in the discussion section, the arguments presented for differences in subgroup by study design random versus not-random sample does not hold valid; as, two out of four categorized as random-sample studies used gay bars and venues, which negates their explanation for the difference in estimates because of sampling methods. In addition, the authors may want to acknowledge and discuss that the studies included in the paper come from a varied range of geo-political spaces with different social and environmental factors which may impact the estimates coming from difference regions.

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 recommend additional statistical review

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