Reviewer’s report

Title: Prevalence of risky sexual behavior in Men Who Have Sex with Men Recruited Online Versus Offline: A meta-analysis

Version: 1 Date: 30 March 2014

Reviewer: Guangyun Mao

Reviewer’s report:

Men have sex with men (MSM) is a well-known risky sexual behavior of HIV or other sexually transmitted diseases (STDs) infection. Previous studies found that ways for MSM seeking male sexual partners have changed largely in the past several decades. Nowadays, the Internet and/or mobile-based “Apps” have become more and more popular venues for sex-seeking among MSM in many parts of the world, especially in western developed countries and some big cities of China. Increased sexual risk behavior has been linked to MSM who seek their partners online. The new situation will have extremely important implications for world widely HIV/AIDS prevention and should be paid more attention than before.

It is quite important to know that how many MSM seek their partners online for the world-widely prevention and control of HIV/AIDS. Although a lot of surveys have been performed to get this information, the prevalence of risky sexual behavior in MSM online varied greatly due to different locations, sample size, race/ethnicity, methodologies, etc. Yang and colleagues conducted this meta-analysis based on 14 studies published between 2000 and 2012, with two mainly used software, Review Manager 5.1 and STATA 11.0, and reported the prevalence of risky sexual behavior in MSM via the internet and mobile apps (online) vs. traditional ways (offline). They found that online has become a major way of partners seeking for MSM and should be well considered for HIV prevention programs or services. The questions posed by authors were well defined, the methods were appropriate and well described. The limitations of this work were also clearly stated. However, the manuscript was not well written such as sentences were not concisely enough, a lot of minor errors of spelling or grammar in the manuscript and only published studies were included in present work, which perhaps would inevitably lead to bias. Furthermore, the discussion and conclusions were not well balanced and adequately supported enough by the data.

Minor essential revisions:
1. Too many minor spelling or grammar errors can be found in the manuscript, such as:

   # “Men who have sex with men (MSM) are a high-risk group for HIV infection.” Should be revised as “Men have sex with men (MSM) is a high risk population of human immunodeficiency virus (HIV) infection” or “Men have sex with men
(MSM) is a highly risky sexual behavior of human immunodeficiency virus (HIV) infection” (Page 2).

# “Our study aimed to determine whether…….” should be revised as “Our study aims to find whether…….” (Page 2).

# “Meta-analyses were conducted…….” should be revised as “Meta-analysis” or “The analyze is conducted…….” (Page 2).

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# “Figure 1 Flow diagram for selecting a study for meta-analysis” in page 19 should be revised as “Figure 1. Flow chart of studies enrollment for this meta-analysis”.

The revised version of manuscript should be thoroughly reviewed by English speaking experts to finish some language corrections before the submission to the journal.

2. The influences of those unpublished studies, such as dissertations, papers presented on various conferences, etc. on the conclusion should be added or assessed in the manuscript.

Level of interest
This is really an article of importance in its field.

Quality of written English
Although the manuscript is not well written enough, it is not a serious impediment to understanding. However, it should be thoroughly reviewed by English speaking experts before being published.

Statistical review
The association between the prevalence of UAI in MSM and ways of partners seeking were assessed with pooled and subgroup meta-analysis, respectively. The estimation of risk were applied with odds ratio (OR) and 95% confidence interval (95% CI) via the Mantel-Haenszel Test in the fixed effect model and the DerSimonian and Laid method in the random effect model. Sensitivity analysis, the effects of heterogeneity (I2 or Cochran’s Q-statistic) and publication bias were also performed. The analyzes were applied mainly by two commonly used softwares, Review Manager 5.1 (Cochrane Collaboration, http://ims.cochrane.org/revman) and the STATA software package 11.0 (Stata Corporation, College Station, TX, USA). In a word, the methodology of statistical analysis were appropriate, except for no unpublished studies were included in the manuscript, and well described.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.