Reviewer’s report

Title: Reported oral and anal sex among adolescents and adults reporting heterosexual sex in sub-Saharan Africa: A systematic review

Version: 0 Date: 05 Jul 2018

Reviewer: Branwen Owen

Reviewer's report:

Understanding oral sex and particularly anal sex behaviour is important and as such, this paper addresses an important topic. I think however, given the far, far greater transmission risk that anal sex poses (at least for HIV) that the two behaviours should be treated more separately, perhaps even as two separate papers.

If it is to remain as one paper, however, the level of risk posed by each behaviour should be discussed in the introduction and discussion. Lines 30-37 compares geographical variations in the two behaviours, comparing oral sex in one place with anal sex in another place. This doesn't make much sense. They are different behaviours and should be clearly treated as such.

Some terms need to be better defined. What is a heterosexual? Unless identifying as a heterosexual (or whatever) was part of the eligibility criteria for all the included studies, you can't call everyone heterosexual (which refers to sexual orientation, not necessarily behaviour). I would suggest calling it heterosexual oral sex (and anal sex) and defining that as oral sex with a partner of the opposite sex.

Prevalence needs to be defined.

Condom use is discussed, but recall periods for condom use are not given. This would be important.

Some of the variation in both behaviours is likely because some of the included papers sample mainly sexually inactive people (the ones sampling from schools). We would be interested in variation in the behaviours across people who are sexually active.

There have been two recent reviews of anal sex behaviour by Owen et al. You should reference these and also check the reference lists as they include studies which should be included in this paper too. Generally, I think that the search strategy needs to be rethought and possibility re-done, because Owen et al's review of heterosexual anal sex practice in South Africa includes 41 studies, whereas this paper for the whole of Africa contains only 35. Perhaps there are some
eligibility criteria that were not stated in the paper? Was the recall period of the behaviours used as eligibility criteria? Line 54 states that the same recall periods were used for anal sex and oral sex - what does that mean?

Generally, I think more thought must be given to the rationale of this review. Why are anal sex and oral sex important to understand? Why put such different behaviours in one review? (I'm not saying you shouldn't but if there is a reason then explain it). What can be done with the estimates produced?

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