Reviewer's report

Title: Factors associated with HIV Counseling and Testing Behavior among Undergraduates of Universities and Vocational Technical Training Schools in Tbilisi, Georgia

Version: 1 Date: 12 December 2014

Reviewer: Peter Barss

Reviewer's report:

The issue is worth addressing and the authors are to be congratulated on this. However, secondary data from previous surveys do not always adequately address main study issues. In this case a smaller overall random sample in a new primary survey with a larger HCT group achieved by stratification and oversampling should do the job better and would be preferred.

1. Is the question posed by the authors well defined?

Needs greater clarity in abstract, rather than one long sentence with main issue near the end. Introduction is long and too many citations (now 14 - suggest perhaps 3) which could be better addressed in the discussion.

2. Are the methods appropriate and well described?

Difficult to discern sampling methodology. First stage institutions, but then what? Who were the 99% who accepted, were they members of randomly selected classes, or what? Without such information it is unclear whether sampling was haphazard. It appears that it was not random, and one then wonders about relevance of statistical calculations.

3. Are the data sound?

Without sampling details, difficult to say. Furthermore, while the total sample is 857, the sample size having received HCT is very small, 39, and who do we generalize this to giving lack of clarity in sampling? When reporting on many variables as in this analysis, there is a risk of finding significance or a lack thereof that may not be real. Since this comparison of receiving or not is the main basis for the paper, the study perhaps needs redoing on a more balanced population including adequate numbers, with and without HCT, if this is to be the main comparison factor. Are statistical test meaningful in the absence of random sampling?

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?

The first table includes two different types of data, and should be divided into two tables. All of the yes no data could be simplified by showing the proportion of interest only, whether it be the yes or the no. The other data could be more clearly explained in a separate table or figure. Table titles should include the year of the study. In the second table, showing p values to three decimals is one way
of changing a 0.05 to a 0.049. On the basis of this, will you recommend stopping people associating with neighbours and friends? Or should people stop reading fiction?

5. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Don’t know

6. Are the discussion and conclusions well balanced and adequately supported by the data?
   Small numbers in the HCT positive group regarding stigmatising attitudes may not justify the conclusion, given sampling limitations. Rather long discussion given the small subsample size and unclear nature of the sample

7. Are limitations of the work clearly stated?
   No

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Didn’t assess this

9. Do the title and abstract accurately convey what has been found?
   Methods in abstract does not document sampling. Results do not show actual numbers for samples in the two groups

10. Is the writing acceptable?
    English is only fair, needs editing by a native speaker/writer and use of a word type program to detect errors.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore): none

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct): improve labelling, actual numbers of samples in abstract

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached): Address serious methodological issues such as sampling, and very small sample size of persons who received HCT, or better redo with a more adequate sample of persons having received HCT.

**Level of interest:** An article of limited interest

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

**Statistical review:** Yes, but I do not feel adequately qualified to assess the
statistics.

Declaration of competing interests:

I declare that I have no competing interests