Reviewer's report

Title: Medical Students' Attitudes to Male Homosexuality

Version: 1 Date: 18 May 2012

Reviewer: Mary E Kite

Reviewer's report:

This manuscript is well-written and the review of the literature is appropriate and up-to-date. The study methodology is also appropriate; the authors have selected instruments that are reliable and valid and well suited to their purpose. However, I believe the statistical analysis do not reflect the standard approach used in the field and I have recommendations for changes. I do not think this will affect the overall pattern of results, but it will allow clearer comparisons between the findings of this research and both past and future research. Overall, the study makes a contribution, particularly because, as the authors note, the physical and mental health of GLTBs depends on their physician’s comfort level with individuals from this social group.

Major Changes:

1. The authors appear to take the perspective that their measures should not be analyzed using mean-based statistics (such as F or t-tests). Although some researchers do suggest that such measures should only be analyzed with non-parametric statistics, the vast majority of attitude researchers do use F or t to evaluate group differences. Because doing so is the standard, I highly recommend the authors reanalyze their data using these more straightforward and readily interpretable statistics. Similarly, it is not necessary to correct for non-normal distributions (although the authors might conduct homogeneity of variance tests). Put another way, if the sample is, say, generally positive, that appropriately reflects their views.

2. Relatedly, the authors categorize the continuous variable, age, into a categorical variable. There is no reason to do so; in fact, doing so results in a loss of information as all participants over the age of 28 are lumped into that category. A simple Pearson correlation between age and the d.v.s is the appropriate analysis. Also, the age range is likely too restricted to draw any meaningful conclusions based on age. National survey data show the largest age differences when adults over the age of 50 (or so) are assessed. Younger people, in general, are more accepting and the present sample likely reflects these viewpoints.

3. Missing data can be more easily handled by creating total scores based on the number of items the participant responded to, rather than the procedures the authors outlined.

4. It is also not appropriate to designate which participants are high or low on a dimension in this type of study (p. 7). Attitude measures, as used here, do not tell
us absolute levels of prejudice but instead indicate the distribution within the
given sample. In a different sample, a score of 24 might indicate less negative
attitudes (depending on the ratings of others in the sample). The authors could
compare scores (using a one sample t) to the midpoint of the scale for a better
estimate of relative negative or positive attitudes, but it is not necessary to do so.

5. The sample size of LGBT individuals is too small to make meaningful
comparisons between this group and the heterosexual respondents. It is more
typical simply to drop these responses and report the views of the heterosexuals.

6. Cronbach’s alpha indicates the overall reliability of the measure (including all
items). It does not make sense to refer to Cronbach’s alpha for individual items.
The numbers in Table 2 represent item-total correlations (as near as I can tell)
and those are typically used to evaluate whether that item should be retained in
the measure before it is summed.

7. I’m not really clear how the information in Table 3 was derived but, again, it
makes more sense to report the means and standard deviations on the
measures by group. These results can then be compared using F or t tests,
rather than the Kruskal-Wallis test.

Minor Changes:

1. The authors should use the term gay male, gay person, or LGBT in their
introduction (as they have done on their measures). Similarly, the term
homophobia is not the best term to describe negative attitudes toward
homosexuality; better terms would be sexual prejudice or anti-gay prejudice. See
Greg Herek’s work for a discussion of both.

2. Social scientists generally refer to attitudes “toward” a social group (attitudes
toward homosexuality) rather than “to.”

3. I think the response rate is very good for a study of this type and the authors
can be more confident about their results than the discussion reflects. However, I
disagree that the sample is representative of the general population in California
(p. 12). The numbers of gays in the sample might mirror the numbers in the
general population, but medical students would not otherwise be representative
of the typical resident of that state. Similarly, it does not seem appropriate to
compare responses to the general UC-Davis population (p. 13).

4. P values are always lower case (p. 10) and r is italicized. Correlations
presented in a Table need not be reproduced in the text.

Level of interest: An article whose findings are important to those with closely
related research interests

Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests.