Author's response to reviews

Title: Medical Students' Attitudes toward Gay Men

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Author's response to reviews: see over
Dear Editors,

Thank you for allowing us to resubmit our manuscript. Following the recommendation of the external peer reviewers, extensive changes have been made to the paper. Manuscript changes are numerated. We are pleased that both reviewers valued the interesting nature of the topic and feel that the revised manuscript offers a stronger, clearer view of the important and neglected topic of attitudes toward LGBT groups in medicine. We first address general changes to the paper (authorship) followed by point-by-point responses to each reviewer.

General change to authorship

- Ms. Naomi Saito has asked to be excluded from this version due to an earlier contribution to statistical analysis that is not in this version. Accordingly, we have removed her from the list of authors.

Reviewer 1 (Mary E Kite):

Major changes

1. We appreciate the reviewer’s concern about not needing to correct for non-normal distributions. Upon re-analysis, there was no material difference in the results using t tests. The main significant results were still significant. We have therefore simplified the presentation of our data by including one table (table 3, page 25) in which we present the mean and standard deviation for each of the four scales and the subgroups.
2. We appreciate the reviewer’s concern regarding age as an independent variable. We feel this variable deserves some exploration despite the limited age range represented because of our hypothesis that younger students might be more accepting of LGBT persons and behaviors. We observed evidence to the contrary. The relationship between age and each of the scales was non-linear and with unequal variance (heteroskedasticity). We further explained our reasons for making age a categorical variable at the bottom of page 9 accordingly. We agree with the reviewer in that the “skewing” toward younger students make a ‘conclusive’ statement harder to make. We have included this discussion on page 12 under “study limitations.”

3. We appreciate the reviewer’s concern about imputation but respectfully disagree about calculating total scores for subjects with item non-response. The sum of the response within a scale, if some responses are missing, will bias the score for the subject. For example, if the scale is summed for a subject with item non-response, the items with no response will be calculated by assigning a zero as the value for that response. This results in the scores for subjects who did not respond being very close to the scores for subjects who responded with a 1. It is unlikely that this reflects a true measure of those subjects who did not respond. It is more likely that a non-response is motivated by negative feelings rather than neutral or positive feelings. We were left with two choices in dealing with item non-response: delete the entire observation or impute the missing data. Deleting the observation results in a drastic loss of information as well as the introduction of bias, for similar reasons as above – non-responders are likely to be further from the average respondent than responders are. Deleting non-responders biases the estimation of the mean and other parameters. We therefore chose to perform multiple imputations. If
no large differences were observed between the 5 imputations and their analyses, no correction for multiple imputation variance deflation was performed or presented. We hope the reviewer is satisfied with current methods presented.

4. We agree with the reviewer that placing subjects into “high” or “low” categories obfuscates overall interpretations by adding an unnecessary layer of analysis. Additionally, including the proportions with a “high” negative response recapitulated earlier calculations with the means (discussed in point #1). We have therefore removed this analysis from the study (deleted include discussion in methods in page 7 and tables 4 and 5). This suggestion has facilitated a simpler demonstration of the data.

5. We have removed LGBT individuals from the analysis since the sample size was too small. Our analyses have been re-done without changes in our conclusions.

6. We have removed individual cronbach alphas. For clarity and ease of presentation, we have provided (in Table 2) overall cronbach alphas for each subscale (of which there were four total).

7. We have presented the means and standard deviations of each group in a revised (and clearer) Table 3 and made appropriate tests for significance as discussed in #1.

Minor changes

1. We have changed terms such as “homosexual men” to “gay men” in all instances of the paper as suggested. We have also replaced “homophobia” with the more appropriate term “sexual prejudice.”

2. In all parts of the paper, we have changed the phrasing from “attitudes toward” rather than having “attitudes to.”
3. The concern about our statement that the population in the study was representative of the California population (ethnicity and sexual orientation)—we agree with the reviewer and have removed this statement because we do not wish to suggest that the population of UC Davis medical students are in any way representative of the general population (it is not a fair statement to make). To clarify that this study doesn’t make assumptions of the undergraduate/other students, we specified “University of California, Davis, School of Medicine, is committed…” instead of simply “University of California, Davis” (page 11) We have incorporated the response rate in the “study strengths” section based on the reviewer’s comments (page 12).

4. We italicized “r” and made “p” lower case in all instances. Additionally, we have removed correlations in the text (page 9) that are presented in the table.

Reviewer 2 (Todd Morrison)

1. Addressed in Reviewer 1 section (minor changes, #1).

2. We used “queer studies” as a keyword due to the ties between negative attitudes toward gay men and bias, but after careful review we think the keyword “bias” would be more appropriate.

3. We appreciate the reviewer bringing up more discussion needed for relevance. We have incorporated this suggestion (page 4) under the premise of our study, namely that more study is needed to determine whether lectures on LGBT health should include social aspects, such as “normative gender behavior” outside the context of transgender/transsexual health.
4. The surveys we utilized were based off previously published reports using those questions as referenced in the paper. We performed a factor analysis that generally demonstrated the integrity of our individual (four) constructs and our ability to make subsequent interpretations.

5. Addressed in #4.

6. Addressed in Reviewer 1 section (major changes, #5).

7. We thank the reviewer for this helpful suggestion that makes the data clearer and easier for readers to interpret. We have replaced means with the proportion who agree, which has been incorporated in Table 2.

8. Addressed in Reviewer 1 section (major changes, #6).

9. We feel that one likely explanation for the marginal alphas is the small number of questions for these scales (persons and civil rights). We have provided further discussion on this within the manuscript (top of page 8). We have added 95% confidence intervals for the Cronbach alphas in Table 2.

10. The reviewer recommended for us to more clearly contextualize the importance of this study. We have revised portions of the discussion for how this study can be used at other schools to guide changes on sexuality and actual content (including a discussion on masculinity and gender roles versus sexual behavior only, pages 13-14). This was also addressed by Reviewer 1 (minor changes, #3).

On behalf of all authors, we’d like to thank both reviewers for their extremely helpful suggestions and look forward to addressing any further concerns they may have.
Sincerely,

Kabir Matharu (UC Davis Medical Student, Year 4)