Reviewer's report

**Title:** Attitudes and self-reported behaviours of medical college students regarding academic misconduct: a cross-sectional study revealing differences based on gender, year of study and type of institution

**Version:** 3  **Date:** 6 October 2013

**Reviewer:** Elisabeth Svensson

**Reviewer's report:**

Review of the revised manuscript: Attitudes and behaviours……

The revised version of the manuscript improved the quality of a scientific paper. Since I am a statistician I see the potential of information hidden in your study, probably because of your over-reliance of p-values. Still there are some important comments and recommendations to consider.

**Statistical methods.**

Second sentence: “The distribution of “ the variables are not generated – it is the number and percentages of individuals with “good” responses . The second sentence is incomplete. Hopefully you have calculated “the 95% confidence interval (95% CI) for the difference in proportions of favorable responses between independent groups”.

The chi-square test are used for analysis of the differences in the number of students with “good” responses. The concept association is wrong and must not be used. This study concern differences in behaviour etc.

You have not used statistical methods for dependent data. Therefore the use of “association” give readers a false impression of the study.

**Results.**

The Results section should report the main findings of the study in accordance to the aims presented at the end of the Introduction section. The text should be objectively formulated without personal interpretations. This is a general rule for scientific documentation.

The main findings in this study refer to the proportions of “good” responses etc. Too much personal interpretations in the results!

It is an over-reliance of the use and interpretation of p-values and “significance”. P-values are not a result!

The three lines “There were significant differences observed in the attitudes……” Just above the subheading Plagiarism is not a scientifically correct result. It is
merely an interpretation, a statement based on statistical analyses and should therefore be placed in the Discussion section – or rewritten with observed results.

It is an over-use of the word significant. Since you have stated in the statistical methods section that a p-value less than 5% is considered as significant, it is enough to present the p-value of the findings, indicating evidences of statistically significant differences, of the observed findings.

Plagiarism, 1st sentence: A difference between schools was found, not an association.

The 95% confidence intervals are now given, but you donnot use the valuable information of them. For example: next last sentence in plagiarism: You found that More females (%) than males (87%) (p<0.05 should it be!) agree...... although (is a subjective word!) there is no significant ..... 

By this difference, 94%-87%=7 percentage units one can statistically estimate with 95% certainty that in the long run between 13 (12.6) and 1.4 percentage units more females than males will have the attitude. This estimation is very similar to the estimated difference in behavior where a larger proportion of males (10%) than of females (5%) would consider the behavior. The difference between them is 5 percentage units in favor of the males, which means than one can expect to find between 0.6 and 10 percentage units more males than females positive to this behavior.

My message is, donnot draw conclusions only based on a p-value bearing in mind the decrease of statistical power due to multiple tests.

The legends of the tables are not fully informative. What does “total” mean? There are three column of total (n). For example the first line Table 2:

My interpretation is 452 (total responses Gender), 457 (total responses Class), 457 (Total responses total).

Furthermore 86 males and 118 females responded “yes” to a), corresponding to 43% and 47%, respectively. The total 452 is here non-informative. More information is the number of responding males (200?) and females (201?).

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests