Author’s response to reviews

Title: Attitudes Towards Psychiatry Amongst Medical and Nursing Students in Singapore

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Author’s response to reviews:

24 May 2018

Liam Messin
Editor
BioMed Central, UK

Dear Liam Messin,

Ref: MEED-D-17-00835
Title: Attitudes Towards Psychiatry Amongst Medical and Nursing Students in Singapore
Journal: BMC Medical Education
We would like to thank the reviewers for their feedback and comments on the manuscript. We have made the necessary changes where possible. Please find enclosed our response to the reviewers.

Reviewer 1
This study investigated attitudes towards psychiatry amongst medical and nursing students in Singapore by using an online web survey. Author concluded that the present psychiatry curriculum could be improved to nurture the development of empathetic attitudes towards people with mental illness. De-stigmatization strategies could also be integrated into other curricula besides psychiatry. The manuscript is well written. I think it would be improved if author described ways of de-stigmatization strategies more specifically in discussion.

We thank the Reviewer for his/her encouraging comments and suggestions. We have also made the necessary changes in the revised manuscript.

Reviewer 2
Thank you for the opportunity to review the manuscript titled "Attitudes toward psychiatry amongst medical and nursing students in Singapore". This is an interesting and well-organized manuscript that addresses an important topic. A strength of the study is that it represents data from multiple institutions and has multi-disciplinary participants (medical and nursing students)

We thank the Reviewer for the comprehensive review of our manuscript and invaluable suggestions proposed.

Specific comments and considerations to help the authors improve the paper are as follow:

1. The sample is very ethnically diverse. How does the ethnic distribution of respondents in the study compare to Singapore at large? Similar? Is the sample representative of Singapore Med/Nursing students? Please add information to help readers interpret the ethnic representativeness of the sample.

We thank the Reviewer for her suggestion. We have included the ethnic distribution of Singapore Residents in the paragraph to show its representativeness. However we are unable to compare the ethnic distribution against Medical/Nursing students in Singapore due to lack of accessible data in this aspect.

2. It is not clear if the ATP-18 was adapted for this study from the Wilkinson et al version of the ATP-18 or if the authors are referring to the ATP-18 being an adaptation of the ATP-30. Please clarify if any adaptations were made to the ATP-18 survey by the authors. A statement about the psychometric properties of the instrument is missing.

We have made the suggested changes to the revised manuscript.

3. In a paper also published in BMC Medication Education in 2014 (see page 4 of 13, doi: 10.1186/1472-6920-14-12), the authors cite/credit Feifel [31] for the item used to assess "likelihood of choosing a career in psychiatry". This appears to be the same item used in the current study, in which case, I would recommend adding the citation of Feifel for this item in the Methods/Instruments section.

We thank the Reviewer for the recommendation and have cited Feifel in our revised manuscript.
4. In the results section, change the first header in this section to read "Sample"; delete the word population.

We have made the suggested changes to the revised manuscript.

5. What was the response rate for the study? Please add a statement about response rate; specifically, what was the total denominator that could have been achieved if everyone invited to complete the survey at the four sites had done so. Or at least a rough estimate of the response rate if this is not possible.

All students in the target population from various institutions were notified of the study through mass email or via verbal dissemination of information by staff. Once quota was met, the website would block any further participation. We are unable to determine the response rate of the study as we do not know how many students had seen the email invitation but decided not to take part in the study.

6. In Table 1, please expand the response options presented for the last variable in the table (Likelihood of specializing in psychiatry). OR present the detailed results for this item in the text. It would be helpful to understand the distribution of responses for this item. E.g., 21.8% "yes" seems very high and it would be nice to see the number who said "definitely yes" only, to be able to compare with other studies who used this same item.

We have made the suggested changes to the revised manuscript.

7. It is not clear why the authors chose to categorize the ATP Likert type items and present as such in Table 2. Are the items normally distributed? If not, perhaps the authors could just perform Mann-Whitney U test statistics instead of categorizing the items and using Chi-square. Also, the corresponding section of text is a bit cumbersome to read (most of pages 8-9). Simplifying the table to present overall mean scores for the items and the means for both groups (nursing/med students) would allow the authors to simplify the corresponding section of text as well. A Bonferroni correction for multiple testing should be considered as well in this instance. In looking at the difference in proportions most of the difference, though perhaps statistically significant using Chi-square, does not seem to be practically all that different. If there is a strong rationale for keeping Table 2 as it is, please consider simplifying the text/presentation of this information and providing a rationale for why the item was treated as a categorical variable using chi-square to compare the groups' responses to each item.

We thank the Reviewer for her thoughtful suggestions. We have performed a Mann-Whitney U test statistics given non-normal data and made the relevant changes to Table 2. We have also simplified Table 2 and the corresponding presentation of its information in the preceding text section. As we had intended to identify items which participants endorsed favorable or unfavorable attitude towards, we had combined ‘strongly agree’ and ‘agree’ to form the ‘agree’ category while ‘strongly disagree’ and ‘disagree’ were combined to form the ‘disagree’ category. Therefore, our overall categories include – “agree”, “neutral” and “disagree”. In the simplified table, we only displayed results from the “agree” and “disagree” categories. Items are also arranged based on positive views followed by negative views and in descending order of overall percentage endorsement of favorable attitude towards psychiatry.

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8. Table 3 / Table 4 results; In seeing that the variable "type of student" was significant at the 0.051 level in univariate analyses, I would encourage the authors to re-run the regression including this variable (and all others that were significant in univariate analyses) but excluding the two variables that were clearly not significant in univariate analyses (ethnicity, academic year in course).
9. Does running the model with "type of student" and all other variables that were significant in univariate analyses in the regression analysis (but ethnicity and academic year in course not in the model) change the results much? Is such an approach more parsimonious?

For our study, all statistical significant results were set at p<0.05, which we had included in our description of “analysis” under the methodology section. Therefore, we did not consider the variable “type of student” as significant in univariate analyses. Nevertheless, we ran the model with “type of student” and all other variables that were significant in univariate analysis and the results were largely similar. Furthermore, in consideration of the relatively low number of variables which we had included in the regression model, running the model with variables that are significant only may seem to be parsimonious. Therefore, we have decided to present a model which includes all the variables analyzed in univariate analyses.

10. Discussion - Page 13, line 161: The authors state that the majority of students agreed psychiatric patients are not easy to like. This does not appear to be an accurate statement or interpretation of the data since 35.2% is only about a third of the sample; and the responses for this item seem to be fairly evenly distributed across the range of responses for this item.

We apologize for the inaccurate interpretation of the data and have removed the statement in the revised manuscript.

11. To better contextualize the study results, early on in the discussion it would be helpful if the authors provide comparisons between the ATP-18 mean scores observed in this study versus those that have been reported in the literature.

We apologize for not being able to include a comparison of ATP-18 mean scores as other studies which used this scale did not provide an overall ATP-18 mean score. For example, a study by Farooq et al. (2014) only reported mean scores by two groups – those who are likely to choose psychiatry as a career and those who are unlikely to choose psychiatry as a career – instead of providing an overall mean score for the entire sample.

12. Limitations section - It seems possible (in looking at the high percentage of neutral responses in this sample for the negative items) that the participants' responses are affected by social desirability bias. This should be added as a possible limitation of the study.

We thank the reviewer for this valuable suggestion and have added this possible limitation to the revised manuscript.

13. Some of the remaining suggestions are minor but would help improve the paper: Page 4, line 39-40: change the tense of the sentence to current status by deleting the word "would" and adding an "s" on the end of the word expand (expands). The word examine (line 41) should be changed to 'examining'. It would be helpful to have a native English speaker perform copyediting on the paper. e.g., Throughout the paper, the authors use the word majority, without a "the" before it. I would recommend adding a "the" in all instances. E.g., "The majority of students...." e.g., Page 4, line 46 "were" should be "was". e.g., page 6, line 71, "was" should be "were"

We have made the suggested changes to the revised manuscript.