Reviewer's report

Title: Effectiveness of contact-based education for reducing mental illness-related stigma in pharmacy students

Version: 2 Date: 6 October 2012

Reviewer: Nathaniel Rickles

Reviewer's report:

Re-review:
Effectiveness of contact-based strategies for reducing mental illness-related stigma in pharmacy students

The manuscript is significantly improved with added details and responses to reviewers. I still have the remaining concerns that are still not clearly addressed.

Compulsory Revisions:

1. Methods: When did the late group receive the contact-based education in relationship to the early group? Months later? The authors’ diagram of study timeline helps but more clarity in text would be useful for readers. Please also clarify how the authors kept the late group from knowing the exposure to the early group. Please better clarify how the exposures were separated as these details are unclear. For example, for those in the later group, what were they doing at the time the early group received the exposure? I am still unclear on these points despite the authors indicating they addressed them. I ask they provide specific indication of where the added text responds to these questions.

2. Methods: Survey Instrument: Please clarify for readers why ad-hoc items were collected. The authors indicate in their response to reviewers that they removed this section but it appears still in the manuscript. Either clarify why these items were included or remove as authors indicated doing so.

3. Discussion: Although I may still be unclear and mistaken, it seems the contact-based group was also exposed to the formal mental health curriculum. Can it be clearly delineated that the intervention effects on stigma are truly due to the contact only or a product of both contact and formal instruction. Please clarify and make clearer to the reader so results can be optimally interpreted. I am still unclear how the authors isolated out the specific impact of contact-based education (CBE) vs. instruction + CBE. If they had measured CBE before the student had ever received education, it might be clearer that CBE specific effects could be identified. I agree that their experimental design could evaluate CBE + education vs. education. Please clarify because this point is very essential to their conclusions and really affects the implications of the manuscript. If I am still struggling with it, then it is likely other readers will too.

4. Discussion: Another important limitation is that there may have been
significant social desirability bias associated with evaluation of contact-based strategy. Students may have wanted to report more favorable attitudes to faculty post the involvement with patients because they may have thought the faculty was expecting such involvement to have a positive influence on their attitudes. The Rickles et al. (2010) paper suggests a method to help reduce the influence of social desirability on attitudes. I still think social desirability with such instruments will always be a possible source of error (despite discriminatory validity testing data) and should still be considered a limitation in the discussion.

Minor Essential Revisions:

1. Tables 1 & 2: Authors should indicate at the bottom of the table if there were or were not any significant differences (and how this was tested) between T1, T1 to T2, and T1 to T3 across demographic factors listed in table. The p-values are unclear as to what they are referring to in Table 1. How was significance tested? Not clear. Please indicate if any findings in Table 2 are significant or not (if no significance, indicate such).

Discretionary Revisions:

9. Major Outcomes: The authors write at the bottom of pg. 10 that “by the final assessment (T3), scores were lower than baseline and again comparable between groups.” Was the change from baseline significant? The authors indicate this was significant in their response to the reviewers. However, the text reads: By the final assessment (T3), at which point both groups had received the intervention, scores were lower than baseline and again comparable between groups: (mean scores 42.6 versus 43.1, t(74) = -0.25, p=0.80). This p-value does not seem significant. Please clarify. If truly significant, please indicate such in the language.

Thank you for the opportunity to review this manuscript and I wish the authors my very best as they pursue publication of this work.

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

**Quality of written English:** Acceptable

**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 below.