Reviewer’s report

Title: Applications of the reflective practice questionnaire in medical education

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Reviewer: Dejano Sobral

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The manuscript describes a replication study that provides confirmatory data about the configuration of the participants' responses to the new Reflective Practice Questionnaire (RPQ). The study addressed the internal consistency and interrelationships of the six scales encompassed by the RPQ, the differences in the scales scores between three different groups of participants, and the differential clustering of the RPQ responses among medical students' subgroups. The contribution of this second study includes the confirmation of the characteristics of the (participants') responses to the RPQ and the indication that this questionnaire could be useful as an adjunct in the counselling of medical students about the application and implications of reflection in their participatory learning and service as they interact with patients.

I have a few concerns and suggestions to share with all the authors.

1. Reflection and reflective practice are multifaceted constructs, as Priddis and Rogers discussed in their earlier work. Then the authors espoused a modified version from Schon's model of reflective practice for the RPQ reflective capacity scale. A proper citation would fit the current work.

2. The statement of the purpose of the study (in the Introduction) does not advance the full objectives pursued in the article. For example, the search for the differential profiles in the students' responses to the RPQ was omitted in the Introduction only to surface later in the statistical analyses section. The authors could expand the information on the study purpose by combining the general aim with the related research questions.

3. The effect-size measures are reported as the point estimate (of the difference, or the correlation between scores). Including the confidence interval for each effect-size measure would give an explicit indication of the respective level of uncertainty.

4. Did the sampling procedures differ across contexts? It appears that the graduating medical students comprised a volunteer sample. It would be helpful to clarify this issue, as volunteers may be attracted by and at ease with a survey subject.

5. The authors noticed an intriguing association between the scores of reflective capacity and stress (and uncertainty) and they query the causal relationship between these mental states. Given the often-fuzzy or problematic nature of reflective experience, may I suggest that that self-efficacy (either in client interviewing or reflexivity) could be at
work? (In my work with medical students, I found a significant, albeit weak, negative association between the Reflection-in-Learning score and a measure of learners' distress [the Medical Students' Well-Being Index], after a demanding educational experience).

6. The cluster analysis, while seeming an unplanned study step, revealed thought-provoking differential features among student subgroups. However, the trends ascribed in the interpretation of that analysis are questionable because of the relatively small sample size. By the way, how much variance was accounted for by the 5-cluster result?

7. I suggest a rewording of the final sentence in the Summary (Results), The students did not directly report anxiety, engagement, or dissatisfaction.Dejano

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

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