Reviewer’s report

Title: Student motivation to learn: Is self-belief the key to transition and first year performance in an undergraduate health professions program?

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Reviewer: Chris Roberts

Reviewer's report:

This is a well written study aiming to determine the relationship between a student's motivation to learn on entry into an undergraduate physiotherapy program and a) their admissions scores and b) their progress and performance through first year. This is a relevant area of study. However, the evaluative data presented does cover other possible research questions. Since, there is much made in the results and the conclusions of the subscale results, e.g. self belief, I would suggest clarifying the research question to more tightly align with the presentations of the results, and the representation of the results in the tables.

The theoretical model around motivation is reasonably well documented. However, given the speculation in the discussion about possible used of the scale in curriculum planning and (presumably in admissions) more detail in the background would be useful on the research evidence base about the link of motivation to self-regulation, student agency and engagement and performance.

As a statistical query, should a multi univariate analysis of variance also been undertaken to determine the final significance in the main variables in the model? Table one is presumably part of the process of exploring the data prior to the uni- and multi-variate analysis. I think it could be omitted. If included, it should have the significant correlations starred? In terms of table three, no prior mention had been made in the research questions as looking at gender differences in motivation, and this needs clarifying if it is a secondary research question. Was gender included in the univariate model as potentially significant variable? In the lit review it suggested that the anxiety and disengagement might be gendered. I assume examination scores were also gendered. What does the lit say about gender and motivation, and is this the right study to address that question?

In following the results, it would be helpful to link their presentation directly to the primary and the secondary research questions. It is otherwise easy to get lost in an array of modest correlations. If the focus is on the univariate/multivariate analysis for the predictive elements of the study, is the correlational findings between elements of the subscale and the assessment scores sufficiently robust?

Given the claim that "Motivation to learn and specifically self-belief with learning, may be the key to a successful transition into higher education" were the authors surprised there was no link in motivation with admission criteria. Is it equally plausible that admission procedures are failing to assess for motivation, and could/should be modified?
Given the gracious acknowledgements of the studies limitations, the authors should tone down the claims about the utility of the motivation scale, and focus on implications from the data they have.

**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.

Yes

**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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