Reviewer's report

Title: The medical students' perspective of formal and informal mentors: a questionnaire study

Version: 2
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Reviewer: D. Robert Siemens

Reviewer's report:

Well written and easily understandable report of cross sectional survey. The introduction justifies nicely the need for looking at this issue. The Discussion is well written and highlights the limitations of the study, including most of this reviewers concerns below.

Briefly, this study attempts to ask a question around the attitudes and experiences of medical students of their mentors, evaluating a formal program at the university of Calgary and using this to compare to some students that self identified also having informal (bit obviously more aligned) mentors.

The authors make some conclusions that are likely too confident for the study design.

Minor correctable issues:

The authors use some confusing terminology that could be cleaned up to make readability easier and that specifically is the use of the terms informal and formal mentorship groups while at the same time using this categorization to describe the experiences with formal or informal mentors. One can work through this but it is confusing at first. I think the authors are likely measuring arbitrarily assigned mentors (so-called formal mentors) to those that the students and staff have become "aligned" in some fashion (they found each other). Different terminology may make reading this easier.

The authors present their Likert scores solely as mean, mode and SD. Although correct they do miss then a good deal of richness in their data. For example, there may be a good proportion of students who felt their formal mentors were very engaged (scored 4 or 5 on their Likert scale) but we miss this by just giving an average. There may be types of students or programs where formally assigning mentors may be more than fine but others where this approach doesn't work at all. Just looking at means doesn't help.

A Likert score is by definition not continuous data (ordinal) and a T test would not be an appropriate choice for their inferential statistics. (Mann Whitney?)

The authors ignore there one difference in the question of whether there was perceived difference in their mentors (general interest) and interpret that both groups generally felt there formal mentors were engaged. I would tend to lean the other direction.
Major issues:
Many of the limitations of the study are described in the paper. It is from a single centre from a single year just prior to making their decision to rank Carms. There are many reasons therefore why these responses may not be representative of the mentorship program and experiences of medical students in general.

If one were wanting to understand the best way to develop a mentorship program in medical school, this cross sectional survey with its inherent biases of the students that did or did not attain informal mentors is not sufficient to answer this question and may be/potentially mis-representative. For example, there is no description in the manuscript about how the programs formal mentorship program is set up and run. What lessons should we learn from there experience? These are good questions to ask, the authors may learn more from a more systematic survey of the students as they transition over the years..

Level of interest: An article of limited interest

Quality of written English: Acceptable

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

Declaration of competing interests:
None