Reviewer's report

Title: Publication in a medical student journal predicts short- and long-term academic success: a matched-cohort study

Version: 0 Date: 18 Dec 2018

Reviewer: Melody Goodman

Reviewer's report:

1. The authors report the case control ratio as 2:1 but it should be reported 1:2 to indicate 1 case to 2 control ratio

2. Is not clear the publishing in student journals produces this outcomes. How do you know it is not some of the other potential factors mentioned in the manuscript (e.g., development of key academic skills while still a medical student, inspiration to pursue a clinical academic career, interest in research)? I am not sure the data supports this assertion. Yes more than half of those who published in SMJ have a pub-med indexed paper but so do a third of the controls

3. If MSJ have a student friendly environment what is to turn off potential academic the first time they submit to a mainstream journal and the process is not so "friendly"

4. A better control would be someone who participated in research but did not publish in a MSJ?

5. Have any of the medical students published in mainstream journals?

6. If there are multiple authors on the paper. Are the students first author? Are the students corresponding author? If someone other than the student is the first author and/or the corresponding author how much does the student learn from this process?

7. You can't compare cases and controls in terms of the n's because there are twice as many controls as there are cases

8. It is unclear if the analysis takes into account the match case-control study design. McNemar's chi-squared may be a more appropriate statistic to examine some of the comparisons

9. Are those with a PhD more likely to have faculty positions and thus more likely to publish? These factors are examined separately but this may be an important confounder. This should have been used in the matching criteria or should be controlled for in multivariable analysis.
10. Authors are making generalizations based on a small sample size

11. Could the students have published in other SMJ besides the one examined in this analysis?

12. There is a chance that obtaining a higher degree specifically PhD mediate the relationship between publishing in a MSJ and PubMed indexed publications and faculty appointments

13. Isn't publishing in a MSJ the same as having a research experience this just seems like a proxy measure for having research experience being associated with the outcomes (e.g., faculty appointment, advanced degree, PubMed indexed publications).

14. Unclear how univariate odds ratios and 95% CI were calculated. Did this take into account the matched nature of the data?

15. The discussion section did have a nice write up on the study limitations with some revised analysis and writing you may be able to use this data to convince me you have sufficiently tested your hypothesis but given the issues with the methodology I am not convinced your data supports the assertions made.

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

No

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

No

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

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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