Reviewer's report

Title: Mentored training and its association with dissemination and implementation research output: a quasi-experimental evaluation

Version: 0 Date: 04 Mar 2020

Reviewer: Geoffrey Curran

Reviewer's report:

Thanks for the opportunity to review this manuscript. It is essential for our field to evaluate the "flagship" training programs—i.e., those sponsored by national institutes and which provide a heathy dose of evidence-based training and mentoring. I think the manuscript reports clearly on a thoughtful and reasoned analysis of the performance of the MT-DIRC program using widely available metrics of scientific productivity—publications and research grants. Further, the authors do a nice job situating their findings in what is known about similar programs, noting limitations of their approach, and discussing ways in which evaluation of such programs could be improved. This being said, I offer a few comments and suggestions which might serve useful in improving the manuscript.

1. I am a little confused about Table 3, models 3 and 4. The CIs for Fellow ORs are 1.0-10.2 and 1.0-11.0 and they are indicated as NS (by not being bolded). Are these being rounded up to 1 and hence they are NS? Or are you rounding down to 1 and they should be bolded and indicated as statistically significant? I suggest providing a little more explanation and/or provide additional decimals. The written description of the findings in the abstract and main paper does not indicate explicitly that Fellow is NS when controlling for previous grant funding. If it is indeed NS, it might avid some potential confusion if that is explicitly stated in the text somewhere.

2. Does awarding of grant funding include co-I status or just PI? Would there be any usefulness in looking at 'PI' on grants separately if you combined them thus far? I am assuming that the implicit or explicit focus of the training program is to assist people with getting funded as PI. For example, I assume that the concept papers were all/mostly about projects the fellows would lead? Either way, it might help the paper to have this be more explicit in the description of the program.

3. Did any candidate-specific or scientific environmental issues/qualifications factor into the selection of fellows? If so, please describe and indicate any potential limitations to your findings as a result.

4. If there is room, I think it would be helpful to hear more from the authors about how we might learn more about the potential or actual impacts of specific program characteristics like dose of training/mentoring, types of activities/exercises (like your great focus on networking and collaborative writing), etc. For example, how helpful and feasible would it be to include in future evaluations of programs like this detailed surveying and monitoring of trainees, social network analyses, and/or qualitative explorations?
Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
Please indicate the quality of language in the manuscript:

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