Reviewer’s report

Title: Training Scholars in Dissemination and Implementation Research for Cancer Prevention and Control: A Mentored Approach

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Reviewer: Julia Moore

Reviewer’s report:

The authors of this manuscript evaluate the Mentored Training for Dissemination and Implementation Research in Cancer program at 6 and 18 months post-workshop for 4 cohorts of participants. Given the need to evaluate D & I training, this evaluation can be used to inform future training initiatives.

Introduction

The authors state that the aim of the paper are to "inform the development of D & I training programs and to share the training of the emerging MT-DIRC cohorts". However, most of the results focus on outcomes of the MT-DIRC and there is very little information in the discussion to direct inform other D & I training programs. The aims could be revised to focus more on the evaluation of the program, or the discussion could be revised to better inform other training initiatives, or some combination of both.

The introduction includes a list of other D & I training; however the section on graduate work seems less relevant, given the different target audience. Since this paper focuses on evaluating outcomes, it would be interesting to describe the findings from evaluations of the other training programs (noting that there are few evaluations, but some have come out recently).

Paragraph 2 on page 4 presents some of the ways in which other training programs are different (e.g., have/ don't have mentoring); however, since the reader has not yet been introduced to the MT-DIRC, some of this information is lost on the first read of the article.

Methods

Given the aim is to inform other training initiatives, it would be helpful to understand more about the content of the workshop training.

One of the primary outcomes is participant self-reported skills; however, the measure, which asked participants "how skilled do they feel" seems to capture self-efficacy of D & I skills, rather than D & I skills. Although this was noted as a limitation, it would be more appropriate to describe this outcome as "self-efficacy" throughout.

Results
Please clarify the sample used in tables 3 & 4 - it states n=56; however, only 2 cohorts completed the 18 month follow-up. Does the pre sample include all 56 participants and the 6 and 18 month have less? Or is it only cohorts 1 & 2 at all time points? If they are different samples, it would be helpful to know the means for the sample that was analyzed.

Please add response scale to tables 3 & 4.

Table 4 presents data for beginners, intermediate, and advanced participants. The beginner baseline ratings are higher than the advanced group? Is this really true? Since this measure captures self-efficacy, not skill, what are your thoughts about why the beginners have such high baseline ratings and advanced participants have low ratings? Further, the advanced group only increases their self-efficacy to 3.25 at 18 months, which is quite low. Alternatively, were these were the labels flipped?

In the results section, the authors compare beginners to the advanced group, but it appears that the analysis is a within-group over time comparison, not a between group comparison. To make statements comparing the change between groups, a between group analysis is needed.

A significant portion of the results and discussion focuses on the discrepancy between mentor and mentee ratings. It is not clear why this difference is important? It seems like it would be more important to understand changes in experiences from 6 to 18 months and to understand what they find most important (figure 1).

Additional questions that came to mind include: did the ratings of the mentorship relate to self-efficacy? Did these mediate or moderate changes in self-efficacy over time? Were there any differences at baseline between cohorts on self-efficacy?

Discussion

The discussion focuses almost exclusively on the results and reinterpreting the results, bringing in relevant literature would be helpful. For example, how do the changes in self-efficacy compare to other evaluations of D & I training programs? How do the overall findings compare to other D & I training programs? How do these mentorship findings relate to other research on mentorship?

Given the purpose is to inform other D & I training, it would be useful to readers to have a section on how these findings can be used to inform other training.

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