Author’s response to reviews

Title: Bringing it Home: Expanding the Reach and Spread of Dissemination and Implementation Training via a University-Based Training Workshop and Accompanying Online Resources

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Author’s response to reviews: see over
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Professors Sales and Wensing
*Implementation Science*

**Title:** Bringing it Home: Expanding the Local Reach of Dissemination and Implementation Training via a University-Based Training Workshop

Dear Editors-in-Chief,

We are submitting for your consideration our revised manuscript on a D&I training program conducted at the University of Colorado.

We thank the reviewers for their suggestions. Attached to this letter we provide a point-by-point response the reviewers’ comments. We hope that our responses have adequately addressed their questions and concerns.

Thank you for reconsidering our manuscript.

Sincerely,

Elaine H. Morrato, DrPH MPH
Associate Professor
Reviewer: Enola Proctor

This manuscript addresses a critical issue for the field of dissemination and implementation research—how we best train the workforce.

The manuscript has several strengths:
• It is very well written and clearly articulates its aims and approach.
• It focuses on a local application of already established national programs for D&I training.
• It provides links to key content, thereby enabling readers to access and benefit from resources developed or adapted for the CRISP program.

Response: Thank you for the encouraging feedback.

Compulsory revisions:
The manuscript would be strengthened by the following edits and modifications.

Several related suggested revisions stem from the paper’s statement that its aim is to “bring home” to local context aspects of previously reported national training programs in dissemination and implementation science. Related to this aim, I suggest that the paper’s contribution would be greater if:

Response: We appreciate the suggestions to strengthen the contribution of the manuscript.

First, the authors should elaborate on the specific aspects of the local context at CRISP that led to the decision to develop a local training program, and that guided its development. Tell us more about the local group of D&I researchers: their professional backgrounds, thrust of their research (prevention? Basic or clinical? Intervention development? )

Response: We moved the section on setting and audience to the beginning of the methods section to place more emphasis on the topics raised by the reviewer. We included more information on our motivation and context for the training workshop, including a description of our local D&I research community. (see page 7)

Second, tell us more about the content, frameworks, or resources that were selected from existing national training programs. What was borrowed, what was adapted, and what was modified—and from which existing programs—for the local CRISP training?

Response: We have expanded the description of the workshop curriculum and extensively referenced resources used from other training programs as suggested. (see pages 10-11)

Second, since the purpose was to engage both new and intermediate learners, it will be helpful to add some detail about the different needs of these two groups of learners. What were the challenges of combining learners of both levels in the same training event? What were the advantages? What conclusions were drawn about this inclusion of learners at different levels?
Response: We have added discussion on the relative advantages and disadvantages of having a mixed learning audience with suggestions for future training events. (see page 17)

Third, please add some detail about one of the educational products identified—the new graduate course. How does the course differ from this introductory albeit very intense workshop?

Response: We have added more description about the graduate course. It differed from the introductory workshop in that it allowed for more in-depth class discussion and reflection on the theory and measures, and provided the forum for personal application of these concepts via a multi-step, graded assignment on the development of a dissemination and implementation plan. (see page 18)

Fourth, the paper identified several initiatives that have followed or are an outgrowth of this workshop....the workbook, the monthly seminar, the new graduate course...

It might be helpful to develop a table showing the focus, target audience, and key components of each.

Response: Thank you for the suggestion. We have added a new table with this information (see Table 4) and reference it on page 19. We are also currently conducting another needs assessment survey of our local learning community to identify further outgrowth of this initial workshop and opportunities for differentiated learning (i.e., for beginner, intermediate, and advanced learners). We have referenced this also in the discussion.

Finally, it would be helpful for have more detail about the evaluation results. The response rate (23%) is relatively low. Why and how does that affect confidence in the results?

Why/How did evaluation ratings differ by participants’:
# Participating level (beginner, more advanced) # Discipline or field

Response: To clarify, the response rate for the immediate follow-up survey was 50% for day 1 participants and 86% for day 2 participants. The second evaluation survey at 6-months was the one with the lower response rate, which is why we only reported the findings qualitatively. We have noted the limitations of low response. We have also added a statement that the intent of the survey was to provide formative feedback to guide subsequent training workshops and we share information on how we did that.

It is interesting that the response rate was higher amongst those respondents who participated in the more in-depth, hands-on day 2. This would be expected as they were more invested in the program. We also believe this response rate may be indicative of general survey fatigue at our clinical campus as the response rate the broader CCTSI needs assessment survey (that we reference) was similar (26%).
Reviewer: Margaret Handley

1. Is the question posed by the authors new and well defined?

Yes, there is much interest and demand as the authors note, for D and I training and such models as this are good to bring to the attention of the D and I community. However, the details of what is involved in this workshop is superficially presented, and there is too much attention paid to the very inadequate evaluation data in the paper.

Response: Thank you for the encouraging feedback on interest in the content we are sharing. In response to your suggestions and Dr. Proctor’s, we have strengthened our description of the workshop curriculum and details of what was involved and acknowledged the limitations of the evaluation data.

REVIEW: Major Compulsory Revisions

Framing Suggestions:
Presenting the framework for the training, and giving details on what are the scientific ideas behind each of the activities described in the workshop outline, would be helpful. As it stands as written, the paper is very broad and it is hard to figure out why these topics were selected and what the evidence or expert opinion process was, that led to them.

Are these topics vetted in the D and I literature? Are the experts who picked them locally based and therefore these topics are resonant for the local stakeholders?

How can outsiders looking at the workshop topics get a sense for what they included without reading the workshop guide?

Response: We have expanded the description of the workshop curriculum and extensively referenced to resources used from other training programs as suggested. (see pages 10-11) The relative focus and emphasis of the workshop topics were based on the conference registration survey, which has been more clearly noted.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?

There are several limitations to the evaluation data.

1. The inclusion of the pre-workshop data in the evaluation sample doesn’t make sense. It seems more part of the pre-workshop planning process and does not belong in the evaluation, and the tables should be corrected as they are called ‘workshop participants’ in Table 2.

Response: We have clarified this as the reviewer suggests re-titling the pre-workshop survey as workshop registrants.
2. The paper presents a very limited set of evaluation data, for which it is extremely difficult to interpret outcomes for. The sample sizes don't match in abstract and results and this is distracting. There are nested sample sizes that get very small, yet the program is described as having broad reach. Why did the n's drop off at the time of evaluation? I have made several notes in the text that highlight areas to explain the evaluation findings. A flow diagram would help.

Response: As suggested, we have added a flow diagram (see Figure 1) and address the reviewer's notes in the text. We have noted the limitation of the evaluation dataset. By reach, we mean the number of individuals on our campus who participated in the workshop (N = 82) which is a large training cohort by our standards. We have modified the title of the manuscript to make the emphasis on local reach.

It is interesting that the response rate was higher amongst those respondents who participated in the more in-depth, hands-on day 2 (around 80%). This would be expected as they were more invested in the program. We also believe the lower response rate among the general respondent pool (Day 1 only participants) may be indicative of general survey fatigue at our clinical campus as the response rate the broader CCTSI needs assessment survey (that we reference) was similar (26%).

In response to the reviewer's specific notes in the manuscript document:

**Abstract**

Q: if there was an adaptation process, how was it done? how was fostering a local learning community part of the methods? is it how the recruitment was done?

A: The adaptation occurred in the process of condensing the content into a 6-hour format and in creating the workbook resource. Fostering a local community was incorporated into the workshop by including built-in social/networking time during the workshop and in a post-workshop reception. Participants were included on our listserv and receive notices of D&I news and events, including subsequent training opportunities and seminars.

Q: to who? were they expected to come to the workshop or just help determine the content?

A: The pre-conference survey was a means to pre-register individuals so we had an idea on how many to plan for and what their learning needs were. Therefore, they are reflective of the actual workshop participants.

Q: of the 105 who registered, (62% attended) and among attendees (n=65), 34 did the survey (52% of attendees). Overall reach for eval measures by registered is only about 20%. Why the drop off?

A: Figure 1 now provides a flow diagram. Of the 105 who registered, 82 attended (78%). We asked for pre-registration several months in advance of the data and clinic/personal/work schedules changed so 22% had a scheduling conflict and could not
attend. This reflects the reach of the training. Of the 82 participants, 14 also participated in a second day (by their choice). This reflects the subset who wanted individual consultation and feedback on their research projects. The number who completed the evaluation survey represent the sample of those for whom we have metrics on workshop learning outcomes.

Q: what was the criteria for success? was it that anyone participated? that 6 months outcomes were favorable? was it based on a minimum amount of spread or any of the goals of submitting grants or putting ImS activities into practice?

A: We defined success as participation, in the knowledge gained (1-week evaluation), and in grant submissions (written or adapted) and publications (6-month evaluation)

**Methods**

Q: where is the faculty participant pool drawn from? is this all U Colorado-based researchers or people in the community doing the teaching?

A: The faculty for the workshop are the listed co-authors. We are a combination of U Colorado-based researchers and researchers in the Kaiser and VA system. We were drawn from various Centers of Excellence in our research community: the AHRQ Center for Research Excellence in Implementation Science of Clinical Preventive Services, the Center for Health Education Dissemination and Implementation Research at the Kaiser Permanente Institute for Health Research, the VA IHD QUERI and Denver Seattle Center for Veteran-centric Value-based Research.

Table 3 provides a list of the D&I experts who were guest faculty, presenters, and panel discussants.

Q: what was the participation rate amongst those invited to give input (pre-registration)? what are the characteristics of those invited and those who participated at this level?

A: This is shown in Figure 1. The invitation for the workshop was distributed broadly via a “save-the-date and register” announcement via broad School and organizational announcements. Those invited represent the population of translational researchers on our campus. We do not have an N for this. 105 self-identified their interest in D&I training and pre-registered, of whom 93 completed the registration survey.

Q: not sure how useful it is to describe areas of interest in a sample considerable larger than those who attended- this sample is telling you about a different audience than the one that participated so not sure it makes sense here to give this level of info as if it is part of the workshop itself- it is more like -pre-planning to gage info on interests in a known interest group (your listeserve). It is not clear that those who attended are or are not a sub-set of this group?

A: We believe the audience that participated (N=82) is reflective of the audience that completed the pre-registration survey (N=93). We hope that you find the flow diagram helpful.
Q: these categories should have n's with them as do the other categories
A: Thank you, we have added these.

Q: are there refs to situate these ideas into the literature or the previous NIH and other training sessions? why so lite on refs for the curriculum itself?
A: We have now included extensive references on the sources used for the curriculum.

Q: the abstract says n=11 attended. Were there 20 selected and only 11 attending? how did this work?
A: We have clarified this. We would accept up to 20 participants in Day 2 given our capacity. Only 11 applied so we accepted everyone. Our goal was to maximize reach and err on inclusivity, rather than over-selectivity.

Q: when did they submit this? at the initial stage of recruitment? How were selections made? who was on the committees?
A: They submitted their application within 2 months before the date of the workshop. Selections were made by the workshop faculty, as described in a previous question.

Q: these are quite low response rates for an in-person workshop? (1-week evaluation)
A: We respectfully disagree. There is evaluation survey fatigue on our campus and we believe a 50% and 86% response rate is actually good relative to other surveys performed by our evaluation center. This was a free workshop, so we believe the motivation to complete an evaluation survey is different from someone who has to competitively apply for a workshop. We were particularly encouraged to see the high response rates among those who participated in Day 2 of the workshop, as this may reflect their greater level of engagement in the topic area.

3. The main goals as stated in one place as: “to extend training reach and foster a local community for D and I”. In another place they are: “The goal was to provide the resources necessary for participants to formulate their own D&I research questions and to incorporate D&I principles into their grant proposals.”. However, it is not clear evaluation outcomes were measured for these. Did anyone write a D and I grant after the workshop?

Response: Knowledge of D&I principles was assessed in the 1-week post-workshop evaluation. Examples of evaluation questions relevant to the first objective are: “increased my knowledge of D&I”, “speakers/discussants deepened my knowledge”, “increased my knowledge of how to successfully implement a D&I program”, “increased my knowledge about how to design for D&I”, and “increased my confidence in my ability to identify key metrics”.

In the 6-month follow-up evaluation, we report evidence of individuals writing a D&I grant, modifying their grant to incorporate D&I principles, and authoring D&I-related manuscripts. We recognize that the response rate was particularly low in this evaluation so should be interpreted cautiously given limitations in the generalizability.
1. Are the data sound and well controlled?
See above.
See comments above.

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?

REVIEW: Major Compulsory Revisions
the numbers are not all matching and need to be verified but seem more or less to match across the paper.

Response: We have verified the numbers to ensure that they are consistent throughout the manuscript. For easier comprehension, we have also re-formatted the table with the 1-week valuation results into a figure.

5. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes

Are the discussion and conclusions well balanced and adequately supported by the data?

REVIEW: Major Compulsory Revisions

no. As stated above, while the workshop conception and content are meaningful, the evaluation data is very limited and it is not clear how much can be understood about the reach and spread from them.

Response: We have noted the limitations of the evaluation data and have modified our conclusions accordingly. The individuals who were trained in our introductory workshop had no other resources available for D&I training. Only one faculty member had participated in the TIDIHR training institute. Therefore, we believe we expanded the reach of these training resources by delivering them locally.