Author’s response to reviews

Title: Implementation and evaluation of a Project ECHO telementoring program for the Namibian HIV workforce

Authors:

Leonard Timothy Bikinesi (bikinesi@gmail.com)
Gillian O'Bryan (gilliano@uw.edu)
Clay Roscoe (jclayroscoe@hotmail.com)
Tadesse Mekonen (tadeteferi@gmail.com)
Naemi Shoopala (naemisure@gmail.com)
Assegid Mengistu (mengistua@NACOP.NET)
Souleymane Sawadogo (bya7@cdc.gov)
Simon Agolory (ifz6@cdc.gov)
Gram Mutandi (jiz2@cdc.gov)
Valerie Garises (vgarises@icloud.com)
Rituparna Pati (rpa7@cdc.gov)
Laura Tison (wup7@cdc.gov)
Ledor Igbor (ymq4@cdc.gov)
Carla Johnson (vvlg@aol.com)
Evelyn Rodriguez (eyr6@cdc.gov)
Tedd Ellerbrock (tve1@cdc.gov)
Heather Menzies (fev7@cdc.gov)
Drew Baughman (alb1@cdc.gov)
Laura Brandt (laurajbrandt0@gmail.com)
Norbert Forster (norbert@itech-namibia.org)
1.01 Background
The literature review provides good context for the project (location, history on project ECHO and project ECHO in Namibia).

Please provide the context for the research - what data is there on professional isolation, peer learning, distance based CPD, etc? Thank you for this suggestion. We have added additional context around distance-based capacity building interventions to reduce professional isolation and
facilitate peer learning in the introduction section. We have also added to our discussion section, further addressing these topics.

1.02 Methods
Please add headings to your methods section.
Thank you for this suggestion. Similar to the results section, we’ve added sub-headings to the methods section denoting description of qualitative and quantitative methods.

1.03 Methods
Please provide a bit of information about the participants surveyed in your methods section.
We’ve added evaluation participant details including average age, proportion female, average length of professional experience, and average number of HIV patients cared for per provider per week to the results section. We did not collect demographic data to describe Project ECHO participants generally.

1.04 Methods
Perhaps include a list of the topics covered in the CPD sessions for context.
Broad technical areas covered in the knowledge assessment were previously included in the quantitative methods. We’ve edited the methods to list those subject areas earlier in reference to the program versus the evaluation.

1.05 Methods
Why did you use Wilcoxon signed rank instead of paired t-test?
Paired t-tests were performed in addition to Wilcoxon signed-rank tests. Wilcoxon signed-rank tests were used due to the small number of participants in sub-groups. Only Wilcoxon signed-rank results are presented in this write-up because significance did not differ between the two tests.

1.06 Methods
How was that data (qualitative) both collected and analysed? Who analysed the qualitative data and how?
Thank you for this request for additional information. Additional details regarding data collection and analysis (including who) have been added to methods.

1.07 Results
In table 1, you note that "others" also had significant score changes - can you please clarify who "other" includes?
Thank you for this suggestion, language has been added to the results to describe who the ‘others’ category includes.

1.08 Results
Also in table 1 you report a p value of 1.00 for pharmacists with 6-28 CPD credits, please correct.
Only two pharmacists with 6-28 CPD credits were included. The small number of participants in this sub-group resulted in a p value of 1.0 using a Wilcoxon signed-rank test, which relies on signed ranks of the individual differences between pre- and post-test scores of HIV knowledge assessment. The p-value was 0.80 using a paired t-test for the observed mean difference of 2.0.

1.09 Results
Please include further quotes to demonstrate themes in your discussion of qualitative analysis - quotes can and should be included in the description of the results, not just the table.
Thank you for this suggestion, we’ve added representative quotes to description of the results to further emphasize themes.

1.10 Discussion
Please connect your results to the existing research literature. For example, is this reduced isolation common in virtual trainings such as this (you discuss this later, but also please add when you first mention professional isolation)? What does the research say about peer-to-peer learning?
Thank you for this guidance. We have significantly expanded our discussion section to better situate in the training and HRH literature specifically relevant to LMIC settings.

1.11 Discussion
Your discussion section also seems to serve as a "best practices" in implementation of your project ECHO - this would be more easily read with headings to describe and space out the different sections of the paper. Alternately, this information is very grounded in existing literature and would be well served to be moved into the introduction.
Thank you for this suggestion, we’ve added subheadings to the discussion section.

Reviewer’s comment2
2.01 Methods
The authors note the session length (90 minutes) and frequency (weekly excluding holidays) but do not state the time during the day when the session is held. A 90 minute session allows for a presentation and discussion period, but can take a provider away from a busy schedule if it is during clinic hours. In Table 2, a nurse notes as a barrier her need to depart the training to attend to patients. I suggest that the authors state the time of the session, rationale, and possible limitations. Thank you for this suggestion. We’ve added language to the methods section indicating time of day sessions were held and the justification. We’ve added language to the results qualitative section citing access to ECHO sessions as a limitation and noting recommendations made by providers to increase participation.

2.02 Methods
The authors state that focus group discussion and in-depth interview participants were purposively selected on attendance. Please clarify the type of attendance (frequent/infrequent). In using CPD completion as a measure of attendance, about half of the survey respondents attended more than 5 sessions and the other half from 1-5 sessions. The authors already note that the small sample size of the qualitative interviews is small and may limit generalizability. Thank you for identifying this gap. We’ve edited language in the methods section to provide further details on how participants were selected for qualitative data collection. Participants must have attended at least 2 Project ECHO sessions. Selection to obtain variability in attendance was not conducted, rather variability in provider type (nurse, doctor, pharmacist) and geography (representation from pilot sites) was prioritized.

2.03 Results
The authors state a range of 18-33 sites participated per session during the pilot (Nov 2015-Sept 2016). In the background section, the authors state that only 10 sites were selected for the pilot and increased to 40 in late 2017. Please clarify how 18-33 sites participated in the pilot when only 10 were enrolled. Thank you for identifying this discrepancy. We corrected the language in the discussion to indicate the range of 18-33 refers to the number of sessions (out of a possible 34) attended by each pilot site.