Reviewer's report

Title: Distance Learning to Build International Health Research Capacity: A Randomized Study of Online versus On-site Training

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Reviewer: Clifford Packer

Reviewer's report:

This is a well-written, carefully thought-out, and methodologically sound study. It is a significant contribution to the literature on distance-learning in medical research and should be published.

Major Compulsory Revisions: None

Minor Essential Revisions:

1. In Tables 3 and 4, it is not necessary to include the raw data for the Leikert scale questions. I would recommend giving only the mean and standard deviation for each question for both arms of the study, and the p-values. This would make the information much more readable and easier to compare.

2. It's not clear to me from the text how the interactive sessions were done in the on-line courses. There were 8 interactive sessions in the biostatistics course and 5 in the ethics course, so this was a substantial part of both courses. Did students log in at pre-specified times? Did they meet together in groups to do the sessions, or was all work done on the students' individual computers? How did they ask questions and get responses? How many of the on-line students actually participated in these sessions? How labor-intensive were these sessions for the preceptors? Presumably, this might be a less scalable teaching mode than simple on-line lectures because it might require more preceptors to answer questions live on-line with a large number of students. Please clarify in the Methods section and give some additional comment in the Discussion.

Discretionary Revisions:

1. I'd like to see some data on the actual cost per student for the on-line versus on-site training. Cost advantages are given as one of the main reasons to pursue distance-learning, and the actual dollar figures for this study (if available) would lend more credibility to the claim. If there was no cost advantage with distance learning in this study because of the small number of participants, could the authors estimate the potential savings with larger numbers of students? Cost data would be of great interest to anyone actually planning to implement a distance-learning program.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.