Reviewer’s report

Title: Calibration of dentists for Caries Management by Risk Assessment Research in a Practice Based Research Network - CAMBRA PBRN

Version: 0 Date: 07 Sep 2017

Reviewer: Sonia Makhija

Reviewer's report:

Thank you for your work on this manuscript. I have a few comments below:

1. I think the details need to be a little more clear. The CAMBRA-PBRN study was mentioned, but was this manuscript focused on the feasibility testing for the main study or were the practitioners the actual ones involved in the main study? I see there was no NIH funding for this study, so it is unclear what PBRN is being referred to in the manuscript: the former PRECEDENT, PEARL, or DPBRN or the current National Dental PBRN?

2. I think more discussion on the PBRN mission, goals, and vision need to be added so the reader can understand the PBRN model. It is gaining more recognition, but still many are not aware of the impact PBRNs have on the profession.

3. Although the kappa for the DMFS was excellent, one of the true issues in dentistry today is non-cavitated lesions. Many lesions are being treated invasively due to incorrect diagnoses. The results of the kappa for the ICDAS 1 and 2 show this is still an issue despite the lengthy calibration process for these practitioners (although it was mentioned the kappa increased when merged with sound). Was any information collected on the practitioners prior to the calibration process on their knowledge of ICDA, ADA caries classification, etc?

4. Although the conclusion did state that dentists can be calibrated and trained, it seems that introducing a new caries classification system would unduly cloud future PBRN studies and possibly limit the generalization of the results since there was an article stating that PBRN dentists are similar to dentists who completed the ADA Survey of Dentists (see link below). The purpose of many PBRN studies are to observe what is being done in the “real world” outside of institutions. It seems calibrating many dentists (possibly 100s) for PBRN studies would not be practical.
Dentists in practice-based research networks have much in common with dentists at large: evidence from the Dental Practice-Based Research Network.

Makhija SK, Gilbert GH, Rindal DB, Benjamin PL, Richman JS, Pihlstrom DJ; DPBRN Collaborative Group.


**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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