Author’s response to reviews

Title: Barriers to Sealant Guideline Implementation within a Multi-Site Managed Care Dental Practice

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Chun-Hung Chu, PhD

Editor, BMC Oral Health

To Dr. Chu:

Enclosed please find a revised version of “Barriers to Sealant Guideline Implementation within a Multi-Site Managed Care Dental Practice” for consideration for publication in BMC Oral Health. We appreciate the opportunity to revise the manuscript in light of the reviewers’ helpful comments. Below we provide a point-by-point response to each reviewer/editorial point raised.

Correspondence regarding this submission may be addressed to me at 381 Salk Hall, University of Pittsburgh School of Dental Medicine, 3501 Terrace Street, Pittsburgh, PA 15261, work phone: 412-648-8656, FAX: 412-383-8662, or e-mail: dpolk@pitt.edu.

Thank you for your consideration. I look forward to your response.

Sincerely,

Deborah Polk
Editor Comments

1. Address the first reviewer’s comment. As we describe below, we have addressed the first reviewer’s comments.

Reviewer 1

1. The sample is not homogeneous, not representative, and not enough.

Because the dentists included in the sample all have the opportunity to apply sealants, we considered them to be homogeneous with respect to the research question. The dental practice sampled includes dentists such as endodontists and prosthodontists who do not have the opportunity to apply sealants. We excluded these dentists.

To address concerns about sample representativeness, we have now added information about the year of graduation for the population of 110 dentists and compared our sample to the population on these values (Results, page 8, lines 169 – 172). We found that the sample range was slightly constricted compared with the population range; the sample mean was slightly older than the population mean; and the sample and population medians were the same. We interpret this pattern as indicating that the sample is representative of the population.

Not having “enough” in the sample is a problem only if it leads to non-responder bias. A thought experiment can help clarify this point. If the non-responders would have responded as the responders responded, then having more responders would not have changed the results. Not having “enough” is a problem only if the non-responders would have responded differently than the responders (i.e., non-responder bias). To detect the presence of non-responder bias, one needs to have information from both the responders and non-responders regarding the factors that cause them to respond differently. As we described in the original submission, one of the limitations of the study was that because the survey was anonymous, we do not have any measures on which to compare the responders to the non-responders. Thus, we have no way of determining whether the results were subject to non-responder bias or whether we had “enough” in the sample. We are unfortunately unable to address this point any further.

2. Qualitative studies help identify barriers; quantitative studies help determine how severe the barriers are.

While we agree with the reviewer that qualitative studies are well suited to identifying barriers, we are not sure how to address this point. We conducted a quantitative study; but in the study, we did not assess how severe the barriers were (i.e., how difficult a particular barrier made it to place sealants for NCCL). Instead, we quantified the number of dentists for whom the barrier
existed. Therefore, to address the reviewer’s point, we changed the language in the manuscript to make this clearer (throughout the entire manuscript). Future quantitative studies should determine the severity of the barriers.

Reviewer 2

1. Describe how the dental population was constituted.

Because age and sex had not been identified as important predictors in previous studies, on our survey, we did not ask for the respondent’s sex or age. Thus, we are unable to provide this information. On the survey, we asked about year of graduation, which we summarized in the original manuscript. Year of graduation may be a rough proxy for age. We have removed the language about the number of patients seen in an average week because when comparing their reports with the electronic health record, we discovered that the dentists’ self-reports were not accurate.

2. Provide the n and confidence interval when reporting percentage.

We have added in the n when we report percentage (see Tables 1, 2, and 3). We chose not to report confidence intervals because the purpose of the paper was to characterize the barriers in this particular practice; it was not to generalize the findings to practices in general.

Reviewer 3

1. Which dental practice and which employees? Of the practice under research?

We have now added language to clarify that our informants were drawn from the practice under research (Methods, p. 7, line 153).

2. The results section is long. Prefer to present the results in tables or graphs.

We have now transferred the results to tables (see Tables 1, 2, and 3).

3. It is strange to offer an explanation for workflow as a barrier from a “fact” and then suggest that has to do more with another situation/phenomenon.
Upon reexamining the results, we have now concluded that workflow is not a barrier and have removed that from the Discussion.

4. This point can be elaborated.

We have now removed from the Discussion the text to which this comment referred (see point 3 above).

5. This has to do with implementation. Make a relationship with the previous point regarding practice environment.

We have added a sentence summarizing the consistent finding across the barriers of prevailing opinion that poor communication may be a problem (Discussion, p. 15, lines 340 – 342).

6. Mention that only one multi-site care dental practice as a limitation.

Reference 10 (Lewin, 1947) suggests that barriers are setting-specific. Thus, our goal was to characterize the barriers at this particular practice; we are not trying to generalize our findings to other multi-site practices. Thus, we did not list this as a limitation.

7. Elaborate regarding setting specific barriers. Which and why?

We have added information about barriers that were and were not specific to this practice (Discussion, p. 17, lines 371 – 377). Unfortunately, we examined only this one practice and, thus, do not have the information to be able to address why they were barriers in this setting.

8. Address this point more extensively. It is the main conclusion. Interpret the results focusing on this point.

We have reorganized the Results section to focus on the information we gathered about potential barriers and potential implementation strategies addressing those barriers (Results, lines 175 - 270).

9. I would expect some relation between the questions/statements reciprocal (clusters) and between questions/statements and some characteristics of dentists.
Because the purpose of the paper was to identify barriers endorsed by many dentists and because we did not have hypotheses regarding any possible relationships between questions/statement and characteristics of the dentists, we did not examine this issue. This should be examined in future research.

10. Edit the Discussion paragraph.

We shortened the Discussion section.