Reviewer's report

Title: Impact of a web-assisted tobacco quality improvement intervention of subsequent patient tobacco product use: A National Dental PBRN Study

Version: 5 Date: 16 November 2012

Reviewer: Paul Aveyard

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Major compulsory revisions

1. I pointed out in the last review that the authors had written what looks like a misleading abstract. I was shocked to see this come back in much the same state as previously. I cannot make this point strongly enough. The main thing that will be read in this paper is the abstract and it is grossly misleading. First, in my view and in standard statistical theory the statement ‘Tobacco use quit rate approached significance (p = .088) between the Intervention and Control groups.’ is always wrong. In this instance doubly so. The implication of this sentence in the context of the whole abstract is that there was some evidence the intervention was effective, when in fact the quit rate in the control group was quite a bit higher than the intervention group. It is important in abstracts that the authors give numerical information about the main outcome in the abstract ie quit rates in each group. Please do so here. Second, the conclusion is inappropriate. The conclusion as written states ‘Follow-up surveys suggest that the advice giving through dental practices work, yet repeated interventions may be needed to produce a significant increase of self-reported tobacco use quit rates.’ There are several errors. First and most important this is not a conclusion that follows from the data in the study. It’s a conclusion about some other studies. Second, I am not sure what a follow-up survey is- do you mean cohort studies? Third, there is no evidence at all that repeated interventions may be needed to support cessation. What is needed is a conclusion about the study in hand. I suggest the following accurately describes the findings; This study shows no evidence that brief advice by dentists increases long-term abstinence in smokers. However, low follow-up rates in the study reduced the ability to detect a difference in cessation.

2. The study still does not follow the CONSORT statement. Many details are missing.

3. The authors have not addressed my comments about giving any detail of the intervention. The only statement we have about it is ’and had the opportunity for advanced tobacco use cessation advice.’ What was the nature of the advice that dentists were trained to give. I assume you have no data on what advice was actually given, but you surely must report what you think dentists were supposed to do.

4. It is important to understand what the control patients received also and you know, but are not telling us. You say ‘Tobacco users in control practices received
usual dental care and services. Usual care for tobacco use cessation in the control dental practices was reported in baseline data collection from providers and patients in the practice.' That's great stuff for us to know- please tell us!

5. The results could do with some rewriting. There's a section about the main outcome then something about quit attempts then a re-analysis of the main outcome again.

6. It's almost impossible to follow the 'flow' of this trial in the way it is described. There were 143 practices randomised- how many in each arm? It appears but is not stated that the 100 cards were given out to all attendees, not just smokers, and only the smokers followed up. Please describe this process more clearly and state how many smokers were identified. It should have been the case that 14,300 cards were given out but it appears that only 10% were smokers. You should describe the baseline data on all smokers and those who consented to follow up as well by trial arm. It's not clear why the numbers in the table do not total the number of participants- I assume because of refusal to answer the question.

7. Did the cards have any data on whether or not the dentist had talked about smoking? I find it hard to believe that this was not included so it should be included in the report.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.