Reviewer’s report

Title: Brief oral health promotion intervention among parents of young children to reduce early childhood caries

Version: 2 Date: 10 August 2012

Reviewer: R Gary Rozier

Reviewer’s report:

This is a well-designed RCT to test a promising intervention that might reduce dental caries and obesity through targeting a common risk factor, diet and nutrition. The risk factors for dental caries and obesity don’t overlap entirely, so it is difficult to estimate the actual effect that the single intervention might have on two different diseases. But results will provide useful information, particularly for an intervention that holds a lot of promise, but one that is largely untested with dental problems.

1. The intervention will consist of anticipatory guidance delivered in home-based, brief motivational interviewing session. Motivational interviewing is well defined for the clinical setting for addictive problems, but less so for “brief” counseling sessions, in particular for dental interventions in home-based settings. It would be helpful if more detail were provided about the home visits (e.g., length, etc.) and what is to take place during the sessions (e.g., devoted entirely to oral health, topic guide, etc.).

2. Subjects are to be recruited from community health clinics in three cities in Western Australia. Enrollment will be based on birth rate, dental disease prevalence, SES and fluoridation status of geographic residency location. It is not clear how this enrollment or stratification scheme will be implemented, nor the criteria that are to be used for enrollment, either community- or individual-level criteria. Any potential effect of the sampling scheme on clustering and thus sample size calculations and analysis strategies should be explored.

3. Training of Oral Health Counselor(s) in basic oral health messages is not described. Training of Oral Health Counselor(s) in MI will consist of a 2-day workshop and 3 one-day follow-up sessions. Evaluation will consist of before and after self-completed questionnaires, administration of the HRQ, and evaluation of role plays and recordings of counseling sessions. The fidelity of the intervention is to be monitored with audio-recordings, but few details are provided about this important aspect of the trial. Details are needed about the method to be used to score the recorded sessions, judge their MI compliance and provide feedback.

4. Training of Oral Health Counselor(s) is described in the past tense as if it has already occurred. If so, evidence of effectiveness and the resulting skill level of the Counselors should be provided.

5. The questionnaire to be self-completed at BL, 12, 36 and 60 months is to
include a number of important domains, but their theoretical rationale, development and pilot testing are lacking. This study will require careful consideration of confounding, even though it includes randomization. Further, information obtained from the questionnaire is to be used to assess secondary outcomes, making their measurement even more important. Behaviors other than diet are important in the incidence of dental caries, and no mention is made of important protective practices, such as exposure to fluorides or dental visits to the dentist. These measures should be closely tied to the behaviors that the intervention is trying to achieve, so a listing of these activities would be helpful. A clearly defined cross-walk between behaviors targeted with the intervention and behaviors that can be measured in the intervention should be presented in the protocol.

6. The “lift the lip” is described as universal, or standard practice, in WA. Screenings for dental caries occur at 8, 18 and 36 month well-child visits, with referral to dentists as needed. It is not clear if these services will be suspended for the MI intervention group and if so, howl disease detection and referral services are to be met for the intervention group.

7. A rationale for including DDE in the clinical assessments is not provided in the protocol. A detailed plan is needed to not only establish an acceptable baseline level of reliability, but to monitor performance during the trial.

8. The analysis plan is very general without any details on how the variables are to be created and thus their numeric properties. For example, dietary assessments are difficult to summarize. How will this variable or variables be created for the analysis? The distribution of caries data tend to be very skewed and require special considerations.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.