Author’s response to reviews

Title: Self-efficacy and self-rated oral health among pregnant Aboriginal Australian women

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Response to Reviewers; BMC Oral Health ‘Self-efficacy and self-rated oral health among pregnant Aboriginal Australian women’

Response to Reviewer 1:

1. There are few descriptions about study participants. The authors should describe about; the number of people who were surveyed, the response rate, and whether did they cover general Aboriginal people. If participants were selected from a part of Aboriginal people, it may cause bias.

   Done. Page 5, Paragraph 2.

2. Job states were used as measure of income. More descriptions which show the usefulness of this Job/Centrelink category as measure of income is needed. And there are many differences between different jobs. More description about categorization different type of jobs into one category is needed.

   Done. Page 6, Paragraph 1.

3. There are some unique systems, “Centrelink” and “Government Health Care Card”. Perhaps simple descriptions about these systems are needed.

   Good point. Descriptions provided. Page 6, Paragraph 1.

Response to Reviewer 2:

1. Why not use the 1-(ln (adjusted OR) /ln (unadjusted OR) formula when assessing the attenuation effect? (BROTMAN, D. J. 2006. Mediators of the association between mortality risk and socioeconomic status. JAMA, 296, 763-4). Please provide a reference for the calculation of the attenuation effect.

   Thank you. Attenuation effect now calculated using this formula. Amendments to Abstract, Page 8, Paragraph 1 and Page 8, Paragraph 3.

Response to Reviewer 3:
1. Authors should address valid concerns about possible collinearity among the primary exposure (self-efficacy) and covariates (particularly the psychosocial and social cognitive measures). If collinearity is an issue in the data, authors should modify their analytic plan appropriately and describe these steps and decisions in the Methods section of their manuscript.


2. The authors should refer to their [logistic regression] estimates of association as prevalence odds (and prevalence odds ratio, POR) because the study design is cross-sectional. It should be clearly stated that these estimates do not reflect risk.

Thank you for this suggestion. Amendments made to Abstract, Page 7, Paragraph 4 and Table 2.

3. Authors should describe the analytic methods used to produce the prevalences and corresponding confidence intervals and p-values reported in Table 1 (columns 3 and 5).


4. Authors should explain in more detail how the conceptual model (figure) dictated the analytic approach. Specifically, they should describe why the order of model-building was chosen. For example, why was ‘fatalism’ not the first (or last) covariate to be adjusted so as to parse out the ‘self-efficacy’-specific influence from the broader “social cognitive” influence?


5. Furthermore, authors should consider building the models additively, as they have suggested they have done in the manuscript text (“addition of” in last paragraph of the results section).

The last paragraph of Results has been paraphrased to clarify that the domains added were in addition to the self-efficacy variable only. Page 8, Paragraph 3.

6. Authors should note in their Methods section the statistical package and procedures/functions used to complete the analyses.


7. Authors should bolster their discussion of potential mechanisms linking self-efficacy and oral health status. The authors describe the existing literature that provides supporting evidence for an association between self-efficacy and oral hygiene, but fail to mention alternative pathways that may exist. This discussion point seems particularly important in light of the fact that the present study results indicate that the self-efficacy association with poor self-reported oral health exists beyond the toothbrushing pathway.

Good advice. Addition to Page 10, Paragraph 2.

8. Discuss other potential pathways not included in conceptual model (figure), such as diet, professional care, etc. between self-efficacy and self-reported oral
health outcomes. Perhaps make recommendations for future studies.

Again, good advice. Addition to Page 10, Paragraph 2.

9. Authors should include a discussion of potential measurement error in exposure and/or covariate measures and note the probable impact of such resulting biases in relation to the study results.

Done. Page 9, Paragraph 2.

10. The authors may consider articulating that their final model was built based on apriori selection of covariates according to the conceptual model shared (figure) rather than covariate selection based on the bivariate statistics presented in Table 1. In the present data, the sociodemographic measures and ‘fatalism’ do not appear (statistically) to be confounding factors.

Good point. Addition made to text Page 8, Paragraph 1.