Author’s response to reviews

Title: Impact Evaluation of a School Based Oral Health Program: Kuwait National Program

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Response to Reviewer:

Reviewer: Falk Schwendicke

The authors have revised the paper, and in most parts improved it. However, two aspects remain plainly either not understandable or wrong:

1. Sample size estimation. It remains fully unclear how this was done, the description provided does not allow to replicate this.

Response:

The sample size n and margin of error E are given by the following formulas
\[ x = Z(c/100)2r(100-r) \]
\[ n = N \frac{x}{((N-1)E^2 + x)} \]
\[ E = \sqrt[(N-n)x/n(N-1)] \]

N is the population size, r is the fraction of responses, and \( Z(c/100) \) is the critical value for the confidence level c.

2. Analysis. For DMFT data, for example, use zero-inflated negative binomial regression or something like this, accounting for excess zeros and the count character of data. I had, in the first place, understood why you corrected for multiple testing, but your tests remain just not right. I know this is some work and I also understand this has not always been standard, but dental journals, like BMC OH, should keep up with the emerging expectations for proper analysis of our data.

Response: Thank you for the suggestion. We conducted a Poisson regression analysis instead of linear regression to account for excess zeros. Table 4 was modified accordingly.