**Reviewer's report**

**Title:** Inequalities in oral health among adolescents in Gangneung, South Korea

**Version:** 0  **Date:** 23 Dec 2017

**Reviewer:** aswathikutty gireesh

**Reviewer's report:**

This study evaluates the inequalities in oral health among adolescents in South Korea and clearly the evidence serves as an important addition to develop a more coherent health policy network. These are the suggestions I have got to further improve it:

Although, the literature review has covered several areas, it is insufficient. As the main aim of the study is to look at inequalities in terms of different indicators, it is highly recommended to review the existing evidence on each SES indicators in adolescents more clearly, especially with regard to the settings (See lines 36-38).

The second paragraph focuses mainly on the different indicators of SEP, but not explicitly stated whether previous studies have found different results by using different measures of SEP. This is important to identify the missing pieces in the previous literature.

Another concern is about this, 'Although such difference was statistically significant (p<0.05), this did not present significant changes in the distribution of gender and SEP indicators of the sample between waves '. For further review, please provide an additional file in the supplementary section containing the tables with difference between the groups in two waves.

Also, mention how the sample size was achieved, any sampling bias (which could possibly lead to misleading results) and give more details about the survey.

It is advised to provide more information about the covariates (frequency of tooth brushing, eating snacks, and drinking soda, smoking, and annual visits to dental clinics )and analysis done, rather than just mentioning them under the tables.
Another potential source of bias is self-reported measures and there is no discussion about the reliability levels of questionnaires used.

Adolescents can fall into wide age range stretching into the early twenties, however, the age group of study participants are not stated. Differences in age distributions could affect results.

All these recommendations need to be addressed before publication.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.
Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.
Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.
Yes

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