Reviewer's report

Title: The impact of education programs on smoking prevention: a randomized controlled trial among 11 to 14 year olds in Aceh, Indonesia

Version: 3 Date: 22 January 2013

Reviewer: Yan Wang

Reviewer's report:

Major Compulsory Revisions

1. In Table 3, the authors described that "the groups were dummy coded into (1) health-related program, 1=if students were in the health-based and the combined program; 0=if students were in the control group. (2) Islamic-based program, 1=if students were in the Islamic-based and the combined program; 0=if students were in the control group. This is not correct. For dummy coding, the category of "0" for health-related program should also include Islamic based program. Similarly, the category of "0" for Islamic based program should also include health-based program. Analyses should be re-conducted based on the dummy coding.

2. Students in combined program did not receive both the Islamic-based program and health-based program. In fact, they received a new program combining health-based program and Islamic-based program. In addition, significant interaction was found between health-based and Islamic-based program. Therefore, I agree with the other reviewer and the results should be presented comparing each of the three programs (health-based, Islamic-based program and combined program) to the control group, in addition to the presentation of interaction between the two programs.

3. It is not appropriate to assume that the ICC of 0.02-0.10 is small and assume that it does not greatly influence the power in analyses. The design effect in group randomized intervention trial depends on the ICC and cluster size. Please calculate and present the power for analyses for the group randomized trial (Murray et al., 2004).

4. The authors used Odds Ratio (OR) for the interaction between health-based and Islamic-based program for categorical variables and it is hard to understand. Consider revisions on the presentation of interaction for categorical variables in Table 3 and text.

5. Based on Table 2, the outcome variables were not balanced across the intervention groups at pre-test. Please discuss on the influences.

Minor Essential Revisions

1. In presentation of the effects of the intervention on smoking behaviors (smoking behavior in the past 30 days) in the text, there is one sentence "There
was also no significant interaction between the Health and Islamic-based program, suggesting the main effects of the program were not significantly different in the combined group." Lack of a significant interaction does not indicate that there is no significant difference between the main effect and the combined group. Please revise.

2. Tables are confusing. For example, instead of using "mean+-standard deviation", it is easier to understand if the authors use "mean(standard deviation)." Similarly, it is easier to read to use "B(SE)" instead of "B+-SE."

3. For Table 1, standard deviations should be presented in addition to means.

4. For "Health knowledge" in Table 2, there is "6.7+2.4" for means and SDs. Is it a typo? Should it be "6.7+-2.4"?

5. For categorical variables in Table 2, it is more appropriate to present the numbers and frequencies instead of means and SDs.

6. Please revise the notes in Table 3 to make them easier to understand. For example, there is a note "difference between health and non-health at visit 2 adjusted for baseline." The authors might change it to "the coefficient and SE estimates for health-based intervention." Also please revise the note "addition modifying effects of being the combined group beyond main effects." It is confusing.

7. The statistical analysis part needs to be more detailed. For example, what are the dependent variables in the models and what are the independent variables in the models?

8. Using the robust standard error is appropriate in analyses. However, it is not necessary to present ICC in Table 3. ICC can be summarized and described in text.

Discretionary Revisions

1. Sample questions might be provided for the measurements.

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

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

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