Reviewer’s report

Title: The impact of health and Islamic school-based teaching programs on smoking: a randomized control trial with 11 to 14 year olds in Aceh, Indonesia

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Reviewer: Xiaozhong Wen

Reviewer’s report:

Tahlil et al. reported the effects of two school-based approaches (health and Islamic education) of smoking prevention among adolescents in Indonesia. The study strengths included 2 by 2 factorial design, randomization, cultural- and religious-specific intervention. This study can add to sparse literature on smoking prevention among adolescents in Indonesia and thus inform health policies and intervention. Most of their observed results were consistent with their hypotheses and the literature for other population. However, some important methodological issues need to be addressed. Also, the writing of manuscript needs more work. Some limitations include self-reported smoking behavior without biomedical validation, and very short-term follow-up/evaluation.

Major comments:

1. (Page 21, Paragraph 3) Given the substantial between-group differences in outcome measures at baseline, the authors may want to consider using CHANGE in knowledge/attitude/behaavior as the key outcome.

2. (Page 13 – Statistical analysis) The analysis needs to take into account the CLUSTER effect, because the unit of randomization was school, not student.

3. (Page 13 – Statistical analysis; Table 2, Table 3) The authors may want to consider using control as the reference, and then comparing 3 intervention groups to it. This seems a more straightforward alternative approach than main + interaction terms.

4. (Discussion) The smaller or null effects in the combined intervention (health and Islamic) need more thoughtful and detailed interpretation. It is necessary to compare the similarities and differences between health and Islamic education materials. For example, is there some conflicting information between them that made the students being confused.

Minor comments:

1. Title: suggest to use “…school-based education programs on smoking prevention… controlled among…”.

2. Abstract: Methods – please add the information on duration of intervention, and how soon was the evaluation after the program. Findings – it will be good to add the effect size of intervention (e.g. differences in means of knowledge and attitudes, % of smoking behaviors), in addition to P-values.
3. (Page 6, line 1) how close geographically were intervention and control schools? Can contamination be a concern?

4. (Page 10, line 5) Was the Kappa for test-retest reliability? If so, why used Kappa for health knowledge but coefficient for Islamic knowledge and smoking attitude?

5. (Page 11, line 8) What was the criterion for selecting 25 out of 50 smoking attitude items?

6. (Page 21, paragraph 2) It seems better to move “The religiosity/spirituality” to Introduction section as a justification for Islamic education approach.

7. (Page 22, Conclusion). Not sure whether the authors should say “… quit tobacco smoking”, because they did not measure smoking cessation in the study.

**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.

**Declaration of competing interests:**

I declare that I have no competing interests