Author's response to reviews

Title: Household Secondhand Smoke Exposure of Elementary Schoolchildren in Southern Taiwan and Factors Associated with their Confidence in Avoiding Exposure: a Cross-sectional Study

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Author's response to reviews: see over
Reviewer 1: Kasonde Bowa

Thanks for the constructive critiques

1. **RE: The data appears to be sound. I have some concerns about the validity of self administered questionnaires to 3 to 6yr old in this study. Some comments on this should be included**

The structured self-administered survey questionnaire was adopted and modified from an established questionnaire used in the Global Youth Tobacco Survey (GYTS) Questionnaire and the Child and Adolescent Behaviors in Long-Term Evolution (CABLE) study (1). In order to ensure appropriateness in applying this questionnaire to these southern Taiwan elementary students, 5 experts in medical education and public health and 2 elementary school teachers were invited in order to re-assess its face and content validity.

Because this questionnaire had already been successfully used in the survey of Taoyuan elementary student’s smoking behaviors in Taiwan (2-4), the experienced expert panel was able to promptly reach a consensus about the validity issues after a 2-hour discussion. The questionnaire was only slightly revised according to the panel’s consensus on the matter. (in the Methods- Questionnaire, Pg.6-7, highlighted in Yellow).

2. **The study subjects 3-6yrs should be included as a limitation.**

   The subject issue has been added as part of study limitation.

**References:**


Reviewer 2: Todd Heard

Major Compulsory Revisions

1. RE: The aim of the paper is unclear. In the background section of the paper the authors describe the aim of the paper to "study household second hand smoke exposure and avoidance of SHS in primary school children in southern Taiwan" and then later in the methods section the authors describe a multi-stage sampling approach with sample collected pre and post an intervention i.e. the introduction of the new act. It is recommended that the authors expand the aims of the paper to investigate the impact of public policy in reducing childhood exposure to SHS? The inclusion of this aim is of particular relevance to the area of SHS exposure in children.

   The aim of our study has been revised and expand by adding “…before and after Taiwan’s new 2009 Tobacco Hazards Prevention Act” (both in Abstract and Background).

2. RE: Little background knowledge was provided by the authors to substantiate the inclusion of the avoidance approach for school children and there are questions to the efficacy of this approach in reducing childhood exposure to SHS. Recommend author includes information in the background section to substantiate this component of the study. This may include information on the efficacy of full bans, partial bans within the home and smoking outside.

   We have added more information on the efficacy of partial bans in text. (Pg. 5, highlighted in Yellow)

3. RE: Survey instruments used in the study are unclear. It is my understanding from the following section of the paper that a parent and child survey was completed. This by the nature of its design is very interesting, however from the information provided i am unable to review the related section of the paper without access to these measures. It is recommended that the reviewers be provided with a copy of the survey instruments to assist with the review.

   As we have only a Chinese-version questionnaire both for children and parents, we are unable to provide a copy of English-version instrument. We summarized an overview of the selected independent variables as an appendix in the paper. An overview of the variables is illustrated in supplementary Table S-1 and Table S-2.

Minor essential revisions

4. RE: Abbreviations: consistent use of abbreviations such as Second Hand Smoke SHS is recommended throughout the document. It is recommended that the author commit to a standard abbreviation use throughout the document as this is important for new readers to the area.

   The inconsistent uses of SHS were changed to “Secondhand Smoke” with carefully check throughout the document.
Reviewer 3: Selestine Haangwaze Nzala

1. Re: Numerous minor revisions that need to be done

Abstract

Results and Discussion

“Compared to females, male had...” to read: “Compared to females, males had..”

Background

First sentence remove “the” before health “These amendments, written in so as to keep the younger generation in good health, include an extension...” Amend sentence “The home is major settings..” Amend sentence

Results

● Study participants

Before implementation of the new Act, ...... to have a 67%-69% of smoking rate(Delete ‘of’ after the percentages.

After the new act was implemented, it was found that families whom have schoolchildren had a 64%-66% of smoking rate and 52%” revise

Children’s confidence...

“multiple regression analysis was then performed children’s confidence level” Revise.

“These variables explained 10.6 % and 11.0 % of the total variance in the confidence level in regard the avoidance” Revise

Discussion

High household SHS exposure

“Since the smoking prevalence ......., the higher smoking prevalence among men must makes” Revise

“The new 2009 act has not been enforceable in individual living environments, and this has lead to the remaining...” Revise.

Contributing factors associated with household SHS avoidance behavior “The present study explored factors that are predicted to be significant with respect to a children’s avoidance of SHS” Revise

“Our study found that if the male students have been smoking, the confidence lever of their...” Revise

Add subhead: Study Limitations

Conclusions:

“......even after new act...” to read “even after the new Act”.

“The family was observed to be the greatest impact and those that the children spend with most of their time” Revise

“The intervention program should enhance schoolchildren do actively avoid exposure.....” Revise
Authors’ contribution
Revise grammar in this section

The authors have revised all grammar/sentences above and added subtitle “study limitations”.

2. *Re: Authors may wish to include questionnaire as an appendix to avoid writing the questions in the methodology section.*

We delete all statements of knowledge and attitude variable and summarize the two composite variables as an appendix in the paper. An overview of the different items in knowledge and attitudinal composite variable is illustrated in supplementary Table S-2.
Reviewer: Anitha Menon

1. Re: Discretionary revisions: Avoid interchangeably using primary school and elementary school. It would also be useful to specify the grades that constitute elementary school in Taiwan.

   All primary school was changed to elementary school throughout the paper. We only collected data from 3-6 graders of elementary schools.

2. Re: The following needs to be addressed: Randomization method must be made explicit, both for choosing schools and class. Did any parents refuse to take part in the study? Was accent obtained from the participants? What was done to ensure that the participants (children) understood the study and their rights in regard to being research participants?

   The following issues have been addressed in Methodology section in the paper:

   Cluster sampling was used, where the sampling unit is the school for this study. Elementary schools were randomly selected based on stratification into three geographic areas (urban, rural, and mountainous areas). The mountainous school sample has approximately 30 students from 3rd to 6th grade per school, as compared to about 400 students in each rural or urban school. 10 mountain schools, 8 rural schools and 8 urban schools were therefore randomly selected from a list of elementary schools provided by the Education Bureau of Pin-Tung City and County, Kaohsiung City and County in southern Taiwan in 2008 and 2009, respectively. No randomly selected schools declined to participate in the study. Four classes were randomly selected for each school; one class each from each school year of 3-6 grades. The final response rate was 98.1% and 98.9% in Pin-Tung (Wave 1) and Kaohsiung (Wave 2), respectively.

   The purpose and process of the survey was explained to each student who participated in the survey. In addition, a parental informed consent for participation in the study was obtained by all of the participants. This consent procedure consists of sending a letter home with the child describing the study and asking parents or guardians to submit a signed form if they wish their child to participate in the study.

   In order to ensure that the content was understandable to the elementary students, the questionnaire was piloted in one third-grade classroom that was selected through a convenience sample in Pin-Tung. This pilot study was not conducted with the purpose of establishing content validity but, rather, for word or sentences modification so as to make it more suitable for the 3rd-4th graders’ reading level. A resulting change from this, for example, geared toward increasing participant comprehension, was our having added the “notional phonetic alphabet” symbols at the side of each Mandarin character. In addition, this questionnaire had already been successfully used in the survey of Taoyuan elementary student’s smoking behaviors in Taiwan (1-3).

References:


3. Various spelling, grammatical errors appear throughout the paper which must be corrected.

This paper was edited once again by a quite experienced editor who we have had great success with over the years.

We thank you for your kind and detailed suggestions. Please be fully assured that this paper, among several already published others, was edited before first-submission by Mr. Schiff of Schiff Editing Services. After the 1st revision, we sent it out again to him for a second editing for you.

4. Re: The aims and objectives of the study must be brought out clearly. What is the age of the participants? Explain if the measures administered in English? If so is English the language of instruction in the schools? If not, why did the researchers opt to use English? Justify the use of the measures; especially that many of them were not standardized. How reliable were they?

The aim of our study has been revised and expand by adding “…before and after Taiwan’s new 2009 Tobacco Hazards Prevention Act” (both in Abstract and Background). The participants are 3-6 graders in elementary schools (aged 8-13). The measures administered were in Mandarin as it is the official language in Taiwan.

The structured self-administered survey questionnaire was adopted and modified from an established questionnaire used in the Global Youth Tobacco Survey (GYTS) Questionnaire and the Child and Adolescent Behaviors in Long-Term Evolution (CABLE) study(1). In order to ensure appropriateness in applying this questionnaire to these southern Taiwan elementary students, 5 experts in medical education and public health and 2 elementary school teachers were invited in order to re-assess its face and content validity.

Because this questionnaire had already been successfully used in the survey of Taoyuan elementary student’s smoking behaviors in Taiwan(2-4), the experienced expert panel was able to promptly reach a consensus about the validity issues after a 2-hour discussion. The questionnaire was only slightly revised according to the panel's consensus on the matter. (in the Methods-Questionnaire, Pg.6-7, highlighted in Yellow).
References:

5. Re: The study seems to suggest a strong relationship between knowledge and behavior and this must be brought out in the title.

The title is changed to “Household Secondhand Smoke Exposure of Elementary Schoolchildren in Southern Taiwan and Factor Associated with their Confidence in Avoiding Exposure: a Cross-sectional Study”

6. When reporting results from chi square and independent t test, the chi square value and t value, along with mean must be reported.

The chi square value and t value, along with mean are reported in Table 2.