Author's response to reviews

Title: Asthma Prevalence, Knowledge, and Perceptions among Secondary School Pupils in Rural and Urban Costal Districts in Tanzania

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Author's response to reviews: see over
RESPONSES TO REVIEWER’S COMMENTS

Dear Editor:

We are pleased to resubmit for publication the revised version of MS: 1867255375103291 –“Asthma prevalence knowledge and perceptions among secondary school pupils in rural and urban costal districts, Tanzania” We would like to thank the editor and both referees for constructive review and helpful comments on this manuscript. We have addressed each concern as outlined below.

Reviewer 1

This is a very nice study which illustrates the differences between the prevalence of asthma in a rural and urban setting in Tanzania and also the perceptions of the participants about asthma.

RESPONSE: Thank you very much for your kind words about our paper. In the following sections, you will find our responses to each of your points and suggestions. We are grateful for the time and energy you expended on our behalf.

1. I have only some minor suggestions for language corrections
   RESPONSE: We apologize for this error, and we have corrected the text as suggested

2. I did not see any discussion on the limitations of the study; did the authors not have any?
   RESPONSE: This is a valid and important comment, and we have included limitations in our revised manuscript

Minor Essential Revisions

1. Abstract
   Background: third line. "The study also aimed to describe pupil’s perception towards asthma and assess knowledge etc"
   Methods: second line; "International study of asthma etc"
   Methods: 5th line; "wheeze" not "wheezes"
   Results: 1st line; "past" not "last" 12 months.

   RESPONSE: We apologize for these errors, and we have corrected texts as suggested

2. Background
   Second line: delete "in" to read "prevalence across countries. Delete 'the" to read "In Phase One" and capitilise "One"
   3rd line: insert "symptoms" to read "prevalence of asthma symptoms ranged"
   11th line: delete "the" to read "within families and communities"
   16th line add "s" to difference and level to read "differences in levels of education"
   1st line: "form" should be "from"

   RESPONSE: We apologize for these errors, and we have corrected texts as suggested

3. Study population
   5th line insert: "the" to read "and the majority"

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6th line insert: "the" to read "the Indian Ocean"
10th line: delete "a" to read "respiratory diseases or heart"
RESPONSE: These errors have been corrected in the texts as suggested

4. Questionnaire
5th line should read "English version, a back translation into English was" etc
RESPONSE: We apologize for this error, and we have corrected the above sentence as suggested

5. Data collection
14th line delete "a" to read "presence of wheeze" and insert "pupils" to read "from all the pupils studied"
RESPONSE: We have corrected the above sentence as suggested

"height and weights were measured" were these done using a standardised protocol? If so this should be referenced.
RESPONSE: Thank you for this suggestion. In the revision, we have explained how weight and height were measured (in the section of Procedures and outcomes).

6. Results
a. Prevalence of self-reported asthma and wheeze,
4th line: insert "The" to read "The majority of pupils"
6th line: insert "knew" to read "Ilala) knew from healthcare workers" Prevalence of self-reported asthma and wheeze,
8th line: insert spaces before brackets and delete spaces before %
9th line: delete "a" to read "had wheeze"
RESPONSE: We have corrected texts as suggested

b. Peak expiratory flow rate (PEFR)
5th line change "is" to "was" to read "there was an increase"
RESPONSE: We apologize for these errors, and we have corrected texts as suggested

c. Knowledge of the triggers for asthma attacks, 3rd line delete "s" from "Dusts" and "hairs"
RESPONSE: We have corrected the above words as suggested

7. Discussion
4th line should read "reduce the economic costs associated"
6th line: delete "s" from "districts"
26th line: delete "the" to read "asthma in rural"
34th line: insert "the" to read "In this study, the majority"
39th line: delete "of" to read "Our study also reports varying perceptions"
RESPONSE: We apologize for these errors, and we have corrected texts as suggested
8. Conclusion
1st line: delete "s" to read "wheeze"
2nd line: should read "In both populations studied, pupils"

RESPONSE: We apologize for these errors, and we have corrected texts as suggested

9. Tables
Table 2 "last" should be "past"
Table 4 "Dusts/kapok tree dusts" should be "Dust/kapok tree dust"

RESPONSE: We apologize for these errors, and we have corrected texts as suggested

Reviewer 2

Thank you for all of your detailed comments and suggestions. We have addressed these issues and your broader structural comments as follows:

1. The main limitation is with respect to self-reported asthma symptoms (wheeze) from a “paper based questionnaire”. Do Tanzanian children know the word “wheeze”? I also have some comments presented below:

RESPONSE: This is an excellent suggestion, and we have made the appropriate modifications. As words like wheeze and asthma lack their Swahili equivalent, we have included it as one of the limitations of our study.

2. BACKGROUND
The authors blame increasing urbanization and infections as the main reason for the increasing prevalence of asthma in developing countries. What about lifestyle, diet, physical inactivity and the resulting overweight/obesity epidemic?

RESPONSE: This is also a good point, and we have made the appropriate change. Instead of only mentioning urbanization, we now explicitly mention factors such as improved hygiene, diet, pollution, obesity and inactivity that link urbanization to increased risk of asthma.

3. METHODS AND MATERIAL
I strongly recommend re-structuring this part of the paper (at least questionnaire and data collection) in Design, Study sample, Procedures and Outcomes as well as Statistical analysis…

RESPONSE: The structure of the manuscript has been changed as suggested.

Why do you exclude children with known chronic respiratory disease, then also children with asthma? How many were excluded?

RESPONSE: This is briefly alluded to in page 4, under Study population. The reasons for exclusion included the minimization of the influence of other disease conditions with symptoms similar to asthma (e.g. chronic respiratory or heart diseases). Children with
asthma were not excluded from the study. As it now appears in the first paragraph of the results section, 72 pupils did not participate for various reasons, including history of chronic respiratory and heart diseases, denied consent to participate and non-availability at school during the study days.

Please clarify how many children included in the analysis (in study sample).
RESPONSE: 1229 children were included in the analysis

The 25 pupils in the pilot where you tested the questionnaires… please give more information.
Did you carry out focus group interviews?
RESPONSE: We thank the reviewer for this insightful comment. We did not carry out focus group interviews but rather tested our research instruments. The last part of the first paragraph on Procedures and Outcomes now specifically describes the piloting process.

Did the children know their birth date?
RESPONSE: This is now briefly alluded to in “Procedures and Outcomes” (Although all pupils knew their dates of birth, this information was verified by checking school records).

4. RESULTS
Please give p-values when appropriate.
RESPONSE: Thank you for this observation. We have added P-values in Table 3.

On page 7-8 it seems like you have carried out regression analysis?
RESPONSE: We apologize for the confusion. We performed a Pearson correlation to find the relationship between PEFR and height of a pupil. This is now explicitly stated in the last part of the paragraph on Statistical analysis.

5. DISCUSSION
When referring to relevant studies from East-Africa please cite Berntsen et al. Allergy 2009: 64: 1166–1171 (prevalence of asthma symptoms in northern Tanzania)
RESPONSE: We are appreciative of this comment. We have gone through the paper and added this necessary reference.

6. TABLE 311. Results can be presented in the text.
RESPONSE: Thank you for this suggestion. We have made changes as suggested.

7. Needs some language corrections before being published
RESPONSE: Several statements that were unclear have been adjusted.

Again, we appreciate all your insightful comments. We worked hard to be responsive to them. Thank you for taking the time and energy to help us improve the paper. We hope that these changes have made it more appropriate for publication, and we look forward to your response.

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