Author’s response to reviews

Title: Nutrition Knowledge, Attitude and Practices Among Urban Primary School Children in Nairobi City, Kenya: A KAP study

Authors:
dorcus kigaru (dorcusmbithe@yahoo.com)
Cornelia Loechl (c.loechl@iaea.org)
Thabisile Moleah (mthabisile@gmail.com)
Macharia-Mutie CW (cmacharia@gainhealth.org)
Zipporah Ndung'u (zippymaina@gmail.com)

Version: 1 Date: 06 Nov 2015

Author’s response to reviews:

RESPONSES TO THE REVIEWER (BMC NUTN-S-15-00011)

Reviewer #1

1. The assessment of nutrition attitude has been poorly worked out, since it was evaluated via one overall question only. It is however difficult to judge the quality of this paper, as so little details are given on the methodology – methodology section has been beefed up.

2. Were question 6 to 10 open ended questions, or were they multiple choice? Were children assisted when filling out the questionnaire? Did all children answer all the questions?

   Question 6 to 10 were multiple choice questions, which also included picture of food items

   The children filled the question under the supervision of the researcher and all the questions were answered by all children -this has been expounded in the method section

3. Were the cut-off points to categorize the nutrition knowledge determined a prior

   Cut off points for categorizing nutrition knowledge were categorised before the study. This has been added in the method section

4. Was the questionnaire tested on a focus/test group before the study?
The questionnaire was pre-tested on a similar population in one fifth primary school which was separated from the four study schools - this was to test the capability of the children in understanding and answering the questions.

5. The generalizability of the results is not possible to judge, since no info is given on the study group. Do the authors have data on socio-economic status, the number of siblings, one/two parents?

The study group was children aged 8-11 years attending day urban public schools in Nairobi County, Kenya. Socio-economic characteristics of the study population have been added in the result section.

6. What was the age and sex distribution?

The study targeted children between 8-11 years. The actual results on age distribution has been given in the result section.

7. Do the authors have data on socio-economic status, the number of siblings, one/two parents, etc?

This has been included in the results section.

8. How did the researches make a selection of the schools, how many schools were eligible?

This has been added in the methodology section. One sub county was randomly selected from the four sub-counties in Nairobi. Four public days schools were selected from a total of the 17 primary public day schools, in the selected sub-county.

9. Are the studied schools public or private schools? What meal service do they offer?

The study schools were day public schools. This has been added into the methodology section. The schools had subsidized feeding programs (funded by only willing parents). The feeding programs were not compulsory for the student to participate. This has been added into the result section.

10. What is their policy on the vending of soft drinks or unhealthy snacks at school?

The schools did not have any policy that regulated the above. This has been included in the result section.

11. What method did the researchers use to select the children?

At the school level stratified random sampling was used to select children from each age group 8 years, 9 years, 10 years and 11 years with a representation ratio of boys to girls.
as 1:1 as was anticipated. However actual experience on the ground did not allow 1:1 boys to girls as enrolment was also not in the ration of 1:1.

12. Concerning the food frequency questionnaire: Which questionnaire was used? Was it previously validated?

   Food frequency questionnaire -modified from a 7days food frequency questionnaires used in EPIC-Norfolk study

13. Where children assisted when completing it and if so, could this have led to a bias?

   The questionnaire had been pretested among similar age group and had been found that the study age group was able to understand and fill the questionnaire adequately. The children were only supervised to ensure completeness but were not assisted in filling of the questionnaire

14. According to methods section (lines 85-87) poor dietary practices were defined as consumption of sweetened beverages and fast foods &gt;4x/W and inadequate consumption of fruits and other healthy snacks &lt;3x/W Were both required?

   The study has revised the same and has used frequency of 4t/per week as the cut off for consumption.

15. Were these the only two criteria assessed? Please provide the FFQ as a supplementary file.

   Apart from FFQ there were other additional questions in the main questionnaire related to dietary practices for example eating habits like eating in front of TV, eating with other family members, eating breakfast and sharing food in school with other children were assessed. This is highlighted in the methodology section.

16. How were the focus group discussions carried out?

   Focus group discussions were facilitated by the researcher and research assistance noted all the deliberations on a note book. The facilitator moderated the discussion by controlling the most talkative children and encouraging every child to participate in the discussion. The discussions were useful in collecting in-depth information on dietary practices, nutrition knowledge, attitude and perception. Key informant interviews were held with the head teachers of the participating schools to get in depth information on the school environment in terms of promoting physical activity and healthy dietary practices

17. Did all children participate in the discussions? all the children participated in the group discussion. The facilitator moderated the discussion by controlling the most talkative children and encouraging every child to participate in the discussion-this was to prevent

18. How big were the groups during this discussions,
The study had two focus groups each comprising of 8 children

19. How did the authors quantify results?

Qualitative data from Focus Group Discussions and Key Informant Interviews were coded by assigning labels to variable categories. Common themes were then established and clustered in a patterned order to clarify variables. Inferences were made from particular data under each theme then conclusions were drawn from the findings. The findings were triangulated with the reported quantitative data.

20. I do not understand what was done in line 132-136. Where girls shown silhouettes of themselves? Who acted as 'reference standard' to determine what was big? Why was it only shown to girls? The observation that boys wanted to be big, how was it made? – Published figure-rating scale (standard thin to fat silhouettes) were used (see attached questionnaire) as has been used in other related studies This has been explained. The perception about boys was from the focus group discussion.

21. Lines 175-178. With what data do the authors support these statements? These were some of the emerging themes what were coming out of the focus group discussion as some of the children did not want their parents to know what kind of snacks they buy while away from home

22. How was the eating environment at home assessed?

This was done by use of addition questions in the questionnaire about eating habits like eating in front of TV, eating with other family members, eating breakfast and additional questions in the FGD--this is highlighted in the methodology

1. The relationship between variables has been poorly worked out. Was the overall knowledge used in the analyses? This section has been reworked. Actual frequencies of various food items has been used to correlate with overall knowledge score- Table 2 in result section

2. In the discussion, the authors state that the main reason to consume fast food and sweetened beverages was the taste and the fact that parents do not by these snacks at home. How do they support the latter? This was coming out in the group discussions where the children stated that most of the snacks they buy outside were due to their sweet taste and most of the sweet snacks like juices, cakes, biscuits were hardly bought at home

3. Lines 274-288. The authors did not mention the relationship between eating environment at home and food consumption or food knowledge. What led them to conclude that there is a causative relation between parental absenteeism and nutrition knowledge and practices in the children? this has been included in the result section table 2
4. Line 46: please provide additional reference to support this statement.-more references has been added

Lines 98-101: move to methods.-has been moved

Lines 107-108: please provide median and quartiles. Done

Line 122-123: move to discussion.-has been moved

Lines 143-147: move to methods.-moved

Line 158: what is mandazi ?- doughnuts

Lines 166-169: move to discussion.-moved

Lines 197-200: move to discussion.-moved

Line 225-226: move to discussion.-moved

Line 274: This is in agreement… What is in agreement?- This has been addressed.

Reviewer # 2

1. Line 74: As mentioned as a major comment, the authors should either provide a reference to the validation of the questionnaire, or if unpublished, provide details of how it was validated and briefly how well it performed- The larger study (IAEA RAF 6042) in which this paper address the knowledge, attitude and practices section was/is a regional study with 11 African countries participating. Kenya was included. Project representatives and researchers from participating countries with technical guidance from the IAEA had a workshop in South Africa, Cape Town (University of Cape Town) to validate the questionnaires and other tools. Some aspects of the questionnaire such as figure rating scale are published.

2. It would be useful to know if these were based on a previously published questionnaires, which would improve the scientific credibility of the methods. If these questionnaires were designed specifically for the study then this should be stated and the questionnaires provided in supplementary material. The questions were developed specifically for this study-questionnaire attached and this paper is a component of a larger study as was/is explained in the introduction and in the acknowledgement section of the paper

3. The discussion requires considerable revision to include an opening paragraph detailing the aims and main findings, more discussion, references and comparisons to similar studies and the addition of strengths and limitations. The discussion section has been reworked -more references and more comparison with other studies done
4. Line 74-75: It is not evident from the methods how these assessments were carried out so further details are required. E.g. how was the focus group structured? This has been explained in the method section and –

More details have been availed and explained in the methodology section on how FGDs were conducted.

5. Line 77: Table 2 should be referenced - addressed

6. Line 91: SPSS should be fully referenced and a P value stated that results were considered significant at Results were considered significant at P&lt;0.05 confidence. Reference for SPSS has been given in the methods section.

7. Line 125: Can the authors elaborate in the methods on whether these were open ended or multiple choice questions? In either case the authors should insert a column in the table to identify what the correct answer was considered to be. It would be beneficial to include the questionnaires in the supplementary material. The questions included pictures. A supplementary questionnaire has been provided indicating the correct answer.

8. Line 161: It is not clear to the reader which part of the results refer to which questionnaire- this results are from food frequency questionnaire. It has been corrected.

9. Line 175-182: If these data are from the focus groups this should be clarified – done

10. Line 236: This reference style is inconsistent with the rest of the manuscript-changed

11. Line 240: This table is very confusing and hard to read. Column headings should be added for 'X2', 'df' and 'p-value' and a more appropriate table title should be provided. Table 7 should also be referenced in the text – done

The relationship between variables has been reworked provided in table 2.

12. Line 252: The discussion would benefit from a clearer opening paragraph highlighting the aims and main findings of the study – discussion has been re-worked.

13. Line 320: References – these have been worked on