Author's response to reviews

Title: Knowledge of Community and Family practices of Integrated Management of Childhood Illnesses and Association with Nutritional Status in Under-five Year-old Children in Northern Uganda: A Community-Based Cross-Sectional Survey.

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Author's response to reviews: see over
Dear Sir,

Re: Response to Second Reviewer’s Comments: Manuscript No: MS: 3200679471026039

Thank you for the communication dated January 28th, 2014 concerning reviewers’ comments. We would like to thank the reviewers for the excellent comments that have enabled us improve the manuscript. Please find below a point-by-point response to the comments.

**Reviewers’ Comments:**

Dr Pascal Besong

1. Uneven Spacing of words, proper punctuation, distant full stops: *This has been addressed throughout the document.*

2. In line 1 of the Sampling section, there should an appropriate punctuation (a Semi-colon) between 'purposefully' and 'Pece': *This has been addressed; a semi-colon has been inserted*

3. Under the section 'Factors affecting stunting and wasting', the word 'among' in line 5 is confusing: *This has been addressed, the entire sentence has been rephrased to read*  
   
   “At multivariable analysis, lack of knowledge of the C-IMCI was significantly associated with wasting (OR=24.5, 95%CI 4.20-143.31) and stunting (OR=3.968, 95%CI 1.274 - 12.346) among children under 5 years in Gulu.”

4. Under 'Discussion' replace 'feel' with 'fill'. The use of the phrase 'due to the fact
that is monotonous in the discussion, and should be reviewed: “This has been addressed”. The word feel has been replaced with fill and the phrase “due to the fact that” is only used a few times

5. I strongly urge the authors to review the use of capital letters throughout the text: e.g ... Dr K. Bernard for help in data Analysis, iodinated salt. The use of capital letters in the headings should be consistent: “This has been addressed throughout the document”.

Dr Inguun Engebretsen

Medium-Major

1. It appears unclear which reference that is used to calculate the z-scores. In the abstract they say something about WHO and NCHS, however, in the manuscript they say WHO, but with reference to something old – so I must ask the authors if they have used what has been launched as the Growth Standards by WHO after 2005/2006. If they have not done that, they must re-do analysis. This could be a knowledge gap and should be corrected:

“We have changed the reference. We used the latest WHO growth charts in our study (WHO 2006 charts). We had used an old reference because it clearly spelt out the definition of wasting and stunting being <-2SD a fact the WHO child growth standards 2006 maintained. However the latter reference has been adopted”

2. The authors also have to say why they choose to look at categorical presentation of growth and not longitudinal presentation of growth which from a statistical and biological point of view is much sounder. I would have preferred if it was linear and not logistic regression looking into longitudinal patterns of growth:

“We analysed the association between the longitudinal age variable with wasting and got an odds ratio of 0.96 and a 95% confidence interval of 0.94- 0.99, with each increasing month. Hence, there was no change in study results with either longitudinal or categorical presentation of data. We chose to present the data categorically because those less than 25 months are still protected by breast feeding and this was of importance to our primary output which was nutrition”
3. A fair limitation is the open-ended questions providing categorical data. Potentials for bias in responses and classification is needed to discuss carefully:

“We used open-ended questions in order to gather more information and avoid losing any that was vital; and also this being a study involving people of various dialects, closed-ended questions would lead to decline of specificity. In order to minimize bias, we used highly trained data collectors with good command of the local dialects. A potential source of bias would only be interviewer modification of responses, and errors in classification of answers. However, at the time of data entry, two different people would look at the responses.”

4. Result – last sentence on risk factor for wasting – knowledge on complementary feeding does not seem plausible. Either there is a statistics problem, a writing problem or it reflects a problem with limitations of interviews and categorization of knowledge – so you need to check this:

“This was a writing problem and we have addressed it; the tables actually clarify that.”

5. I am not satisfied with the selection of variables into the multivariable models. As your research question is knowledge and under-nutrition – need those in both the bi and multivariable models. However, the full knowledge variable is a dummy variable made out for the sub-knowledge variable. Thus, you will have co-linearity. To me it is best if you choose the 3 sub-knowledge variables in both multivariable models. This should be doable to check out:

“The variables included in multivariate analysis were assessed for co-linearity by checking for variance inflation factors (VIFs) after fitting the multivariable model. None of the VIFs were greater than 10 and the average VIF was close to one for both the models using wasting and stunting as the outcomes. We therefore concluded that there was no co-linearity. We have included this in the manuscript. We run different bivariate and multivariate models for both stunting and wasting, and included all the knowledge variables in both of them. For presentation purposes, we only included the most significant variables of both the multi- and bivariate models.”

Minor:

5. Language: The language has improved a lot – much more reader friendly, but still there are smaller technical errors (spaces, lack of full stops) and irregularities (e.g. households and households) that needs further cleaning. I am sure the BMC system gladly assists with that:
“We have addressed the language issues.”

6. Further regarding presentation, it is a large variation on number of decimals after the comma in this presentation. As this is less exact science with lots of opportunities for classification error, I think it would be best with only 1 decimal place. Has to be corrected in abstract, result section in body and tables:

“The use of only 1 decimal place will make some values not easy to comprehend e.g. odds ratios and p values, etc. We therefore suggest we use 2 decimal places, which we have demonstrated in the manuscript. Concerning p values we have maintained three decimal places to avoid confusion of study results.”

7. Sentence to reference 9 in the introduction. Delete “in addition” or delete sentence:

“The words in addition have been removed and a full colon used to bridge the sentences”

8. Introduction: 1st sentence – 2nd para “Nutritional indices…..” this sentence requires “by whom/when” to be meaningful:

The sentence has been revised to include “by the C-IMCI working group”

9. International readers might not be 100% familiar with the LC system, etc:

“We have explained what we meant with the LC chairperson: the village head”

10. Full stop missing in the last sentence - para “study setting”:

“This has been put”

11. “Study design” – para: It would be best if you could not give the implementation result here to start with, but go straight on your theory. Then you present they calculated number and then what you ended up using:

“This has been addressed.”

13. Full stop missing in the 1st sentence – para “Sampling”:

“This has been dealt with”

14. Para – “definition of study variables” – sentence on immunization – “could suffer from” instead “could safer from” (?):

“This has been corrected”
15. Please state if you do Chi-square tests for your categorical data assessment. Is that a healthy thing to do with the gender-caretaker variable?:

“We did logistic regression analysis for the gender-caretaker variable at both univariate and multivariable analysis.”

16. NB: You are doing multivariable analysis, not multivariate. You do not say which type of regression analysis you are doing – you do not say regression analysis either:

“We used logistic regression, and have cleared the multivariate-multivariable misnomer”

17. Table 1 must be in the manuscript. Comment on median age of care-takers (is range or iqr or SD given in the brackets?):

“We have included tale 1 in the manuscript and clarified the units”

18. Give currency in the sub-heading (Ug Shs):

“We have addressed this in table 1.”

19. Table 1 would benefit from a split in categorical and longitudinal variables so you do not mess units to the same degree as you are doing now:

“We have done this: We have split table 1 into table1a and table 1b and included them in the manuscript as advised.”

20. Spelling error para 2: feel and fill:

“This has been done.”

21. Phrasing is not so good here and there either – check up with fluent academic English writers:

“We got a fluent English authority to read through the manuscript”

22. 2nd sentence abstract – time and place is forgotten:

“This has been addressed”

23. It would be unexpected to study the association between knowledge patterns of IMCI-c and anthropometry – thus it is a weak justification in order to do the study. Thus, it is of interest. I think you in the abstract should rephrase your justification with instead of “this hasn’t been done before –therefore you have to do it” with the concept you have which is of interest:

“Thanks a lot for this Insight, we have adopted it.”
24. Result-presentation: It is more common to present wasting/stunting by age-category as risk increasing by age:

“We have included a table 2b which presents wasting and stunting in two main age categories <25months and >25months. These categories were chosen after consultation with a local pediatrician involved in nutritional research: they are the most significant categories below years 5 years.”

We hope you will find our responses adequate.

Yours faithfully,

Mukunya David.