Reviewer’s report

Title: Undernutrition and associated factors among Urban children aged 24-59 months in Aykel town, Northwest Ethiopia: A community based cross sectional study

Version: 0 Date: 03 Jan 2019

Reviewer: Reviewer 2

Reviewer’s report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

No - there are major issues

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are major issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

No - there are major issues

Statistics - Is the use of statistics in the manuscript appropriate?

Not sure - I am not able to assess the statistics in this study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are major issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Maybe - with major revisions
PEER REVIEWER COMMENTS:

GENERAL COMMENTS: This is an important and interesting subject that is regularly evaluated in many countries and most of the main factors are well known and regularly reported.

This survey is therefore unlikely to bring many new discoveries, but it is still important to check the trend of undernutrition in the areas where it is the main public health problem and to assess the progress of the current recommended appropriate strategies within the population.

Here, the study provides interesting information about access to water, handwashing practices (though it needs to be clarified) and a lot about breastfeeding practices and recommended practices (do not discard colostrum, early initiation of BF, etc.,) but I guess most of this information is provided as part of DHS or national mixed surveys.

REQUESTED REVISIONS:

There is an interesting attempt to identify the discriminating factors for the 3 categories of undernutrition. However, I am not sure that it is correct to multiply this type of analysis on nutritional status. My opinion is that it is not correct, so all the analyzes are probably biased. The sample size calculation should be revised and the unnecessary information removed. I would suggest seeking advice from an independent statistician. I also wonder how there are no children suffering from mixed malnutrition. Authors should add a specific section with all the definitions of the criteria used in the survey.

The paper requires a lot of edit. The authors did not discuss limitations of the study nor discussion of the method.

In the discussion section there is an extensive and well documented reference to other studies. However basic comparison with others cross sectional studies are provided but no deep reflection about what next? is provided. This would be appreciated in discussion and conclusion.

ADDITIONAL REQUESTS/SUGGESTIONS:

Title: probably would need to include "urban"

Abstract

Location is missing

Crude and adjusted odds ratios (this is not developed in main paper)

Take home message should be added in conclusion
Introduction

Some citations are not linked to references or data source (Line 21, Line 55 etc, p4 l 27-39..)

Page 4. Ref 8 is hospital based which may explain the data

I have some concern regarding the sample size needed to allow multiple regression analysis on 3 criteria. I guess this allow you to analyse the association with only one status not 3.

I would suggest the advice of a statistician. You may remove the table or post it as supplementary file but the problem is not there.

Ref 10 is from Sudan Khartoum. Sudanese journal

Also did you get children with both wasting and stunted etc…

P 6 explain what is kebele and ketene?

Please can you check and provide a ref for your sampling procedure?

Data collection

Check the writing and remove duplicates. What was the precision and make of the beam balance?

Data quality control

The equipment was calibrated each day prior to the actual data collection by using a known weight material.

Is a Duplicate with line 6.

Can you explicate WHO undernutrition definitions, and all terms or criteria (such as timely complementary feeding etc…early breastfeeding …) in a definitions section.

How did you define and check that Hand washing practice was correct ?

What do you mean and how did you measure Milk feeding, was it formula feeding, boiled milk ?

Was the time of introduction of cow milk a variable ? etc..

was there any goat feeding ?

Was there any formula feeding ?
I did not see any information on the time they stop feeding children.

Did you ask for recent morbidity or disease episode within the last month? and recurrent disease?

Data quality control

Do you mean Epi-Info 3.5 3.5?

For most variables, data were presented by frequencies and percentages.

For most..And the other ones? How did you fit them in the model?

Bi-variable binary logistic regression

is this correct?

check edit L 20

Ethical considerations

..from the University of Gondar

is this an ethic comitee? Clarify

…agreed to give consent

Oral written? Clarify

Results

I may suggest to use 1 digit n result consistantly, to give frequencies along with % (see line 53).

Choose between SD and 95% CI for all results.

Socio-economic and demographic characteristics of study participants

…and the ratio of male to female was almost equal [202 (50.4%), 199 (49.6%)].

I would suggest you provide sex ratio instead.

Line 59. Majority,
Please revise the sentence

Socio-economic and demographic characteristics of study participants.

Please revise your description of sample in text and table.

Were diarrhea or malaria not a factor of exclusion? (see inclusion criteria)

Almost all, 410(99.8%), of the children were fully immunized. How did you check?

Hygiene and environmental sanitation related characteristics

More than half, 248(61.8%), of the respondents had good hand washing practice. Please see my comments for definition.

Nutritional status among children aged 24-59 months

The overall prevalence of stunting, wasting and underweight among children aged 24-59 months. And 38.4% of the sampled children were affected by either stunting or wasting or underweight.

None of the sampled children were affected with both?

In Abstract you talk of adjusting OR

You could simplify the presentation of results. Do not repeat results that are in Tables.

Reference

Check reference allocation and format

Note: This reviewer report can be downloaded - see attached pdf file.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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Please complete a declaration of competing interests, considering the following questions:

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