Reviewer's report

Title: Factors associated with minimal meal frequency and dietary diversity practices among infant and young children in the predominantly agrarian society of Bale zone, at southeast Ethiopia: A community based cross sectional study

Version: 0 Date: 17 Mar 2017

Reviewer: S Frayon

Reviewer's report:

Please note that there is no page number in the manuscript I receive so the comment are made considering the title page as page 1.

General comments:

1. Background is not clear and need to be rewritten. Especially, context concerning Ethiopia is not well presented: other studies concerning this topic were not introduced in the background:


- Ergib Mekbib et al.: 2014: Magnitude and Factors Associated with Appropriate Complementary Feeding among Mothers Having Children 6-23 Months-of-Age in Northern Ethiopia; A Community-Based Cross-Sectional Study; Journal of Food and Nutrition Sciences 2014; 2(2): 36-42


I suggest the authors to take account this last publication during their revisions:

2. The study is not novel, given that the context is Ethiopia and similar papers have already been published since 2013. The author's need to justify what was new in their study. What is the specific importance of their area of study (Southeast Ethiopia)? What is the hypothesis of the authors justifying this study? The results need to be compared with the others studies in Ethiopia more precisely: what factors the other studies found to be associated with MMD and DD?

3. The used of the terms 'malnutrition' and 'undernutrition' in all the manuscript is not clear. For example authors claims "The most recent preliminary results showed that, improper feeding practice in the first two years of child's age is a major cause of child undernutrition, resulted for multiple nutritional and health outcomes (4)." However, the reference is about malnutrition and not undernutrition. Please clarify and justify this terms.

Is the dietary diversity correlates with undernutrition, malnutrition or both? Same concern concerning meal frequency? Because the authors didn't evaluate the global energy intake, I'm not sure that the term 'undernutrition' is appropriate in this study. See for reference Prakash Shetty, Malnutrition and Undernutrition, Medicine Volume 31, Issue 4, 1 April 2003, Pages 18-22.

Background

Page 3, line 18: The sentence doesn't make sense for me. Please precise what are the negative impact of malnutrition.

Page 3, lines 20-22: The sentence is incomplete/unclear.

Page 3: In the 2nd paragraph, arguments seems to be the same than in the first one. Please reorganize the two first paragraph.

Page 3: The order of the arguments need to be changed: it is not very happy to speak about the number of children deaths after pointing the fact that malnutrition can cause repeated grades in school. Negative impact of malnutrition need to presented in a logic order.

Page 3, line 40: The term 'complementary foods' is not explained before and readers cannot understand what the authors speaking about.

Page 3, lines 43-46: Did the authors want to say: In most of the developing countries, children are directly ... ?

Methods

The authors argued that the first 1000 days is important: why the population included infant from 6 to 23 months only?

Page 4, line 48: The minimum dietary diversity proportion was choose to be 39.1% to determinate the sample size basing on work of Jonas et al. However, others works in Ethiopia found lowers proportion: 10.8% in EDH survey and 12.6% in the study by Beyene et al. Because nothing is know in the region studied by the authors, proportion from a national representative sample (EDH survey) must be used instead of another regional studies. Moreover, the authors indicate in the background that this proportion is only 10.8% (page 1 line 56) to justify this study.

Page 4, line 37: What is a woreda? Even if a reference is proposed at the end of the sentence, please explain briefly.

Page 5, lines 23-30: Are the questionnaires has been previously used in other countries and other studies?

Page 5, lines 39-45: How the minimum diversity dietary has been choose: is this an international or a local recommendation? (WHO or others?). I think WHO's specification is used but the reference appear only at the end of the paragraph and it's not clear if it's concern all the indicators studied.

Page 5, lines 52-55: Same concern about the minimum meal frequency: please add a reference concerning this point.

Page 6, lines 10-17: The method used to obtain the household wealth index is not clear for me. Please clarify what the "composite asset indicator" is.
How the acceptability and applicability of the procedures and tools has been evaluated?

Results

In the table 1, about 60% of the infants were male and only 40% were female: what the authors think about that? Is there a reason to this sex ratio in Ethiopia? Is the gender has been used in the models to find a correlation with minimal DDS or minimal meal frequency?

Page 8 line 10: Why the availability of latrine had been explore? Is there a link between this variable and meal frequency or diet diversity? Please explain.

Page 8, line 16: PNC is not defined before.

Page 8, line 44: please remove 01

Page 8, lines 47-58: All these data were presented in the table and there is no need to rewrite all the values: please group the factors positively and negatively associated with minimal dietary scores.

Discussion:

Page 9: In first paragraph, authors claims that their results was higher than local reports in Ethiopia (line 13) and lower than results in Ethiopia few lines further (line 25).

It is not clear what findings were 'lower'? (meal frequency, dietary diversity?) (lines 24-28).

More generally, the discussion about meal frequency and dietary diversity may be clarified because the reader don't know what the authors is discussing in several times.

Page 9, lines 40-48: Please compare data with international data and then with local or national sample in Ethiopia to clarify the discussion.
Page 9, lines 56-60: Home gardening is proposed to explain acceptable dietary diversity practice but data obtain by authors apparently not support this hypothesis? If no association was found in bivariate analysis, this explanation cannot be proposed as an explanation.

Page 10 line14: "Frequency of the meal increase as the age of child increase" may be better (age of infant never decrease).

Page 10, line 20: "Where those ..." This sentence doesn't make sense. Is this sentence the following of the previous one?

Tables

Tables 4 and 5

P value is not included in the tables. Please add. The * symbol is not explained in the legend.

Figure

There is no confidence interval in the figure 1.

References:

reference 4: Please correct the citation:


There is a lot of typo error in the references: please check carefully. Some reference seems to not be in accordance with journal recommendation.
Level of interest
Please indicate how interesting you found the manuscript:

An article of limited interest

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

Needs some language corrections before being published

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