Reviewer’s report

Title: Dietary diversity among school age children in Merawi town, Amhara Region, Ethiopia, 2018: A community based cross-sectional study.

Version: 0 Date: 23 Aug 2019

Reviewer: Abdul-Aziz Seidu

Reviewer's report:

Thank you for giving me the opportunity to review a manuscript entitled "Dietary diversity among school age children's in Merawi town, Amhara Region, Ethiopia, 2018". The manuscript focuses on an important public health issue related to the Sustainable Development Goals 2 and 3. I have made the following suggestions to improve the quality of the manuscript.

Specific comments

Topic
I suggest the topic should read: "Dietary diversity among school age children in Merawi town, Amhara Region, Ethiopia, 2018: A community based cross-sectional study"

Abstract
1. Page 2 line 28. Kindly replace developing countries with "low and middle-income countries
2. Page 2 line 31, the word these should be taken out
3. Page 2 line 34, please add the duration for the data collection (April 1 to June 15, 2018)
4. Page 2 Line 40 should read… "the factors associated with good dietary diversity were age of the child (AOR=0.309(AOR= 0.309 (0.138, 0.694), and access to information ( [AOR=3.178 (1.067,9.469)].
5. Page 2 Line 42, conclusion. It should read…” the prevalence of good dietary diversity was relatively high.
6. Page 2 Line 44 should read…” Among different socio-cultural and economic factors studied, age of the child and access to information were the factors associated with dietary diversity.
7. Page 2 Line 44-46 should read "Increasing maternal and child awareness towards good dietary diversity practices through the mass media (radio and Television) and working with mothers with early school age children to improve dietary diversity are recommended.

Background
8. Generally, there are a lot of valuable information and literature reviewed, however, the background lacks coherency.
9. Minor issue (the references should be like this [1] but not (1). Please check this and correct them accordingly to meet the journal's specification as well as those at the reference section (page 10-11).
10. There are instances of 3-4-line sentence paragraphs. The authors should please consider merging some of the paragraphs (e.g. line 65-68) (82-84) are just few lines sentences.

11. The authors should also consider discussing the work in the context of the SGDS. For example, goal 2 and goal 3 target 3.2.

12. Line 78 china should be 'China'.

13. Page 3 Line 83 16.2% in … the word "in" is missing.

14. The justification for the study is not well articulated. The authors mentioned in line 96-97 that little information in the study area. Can you please indicate these few studies and the exact issues on dietary diversity they covered? This will help the authors situate their work in that context and how the current study is going to fill that gap.

15. The authors should kindly add the significance of the study to the introduction (this should answer the question what benefit will be derived from the study?)

Methods

The methods are well explained. However, it will be clearer if the authors consider these additional comments

16. The authors justified how they got their sample size. However, the exact source of the formula and how the sample size was calculated are missing. This should be added.

17. Page 4, Some of the information on the study setting shoud be backed by evidence. E.g line 105-108.

18. Page 5, Line 122 the word an should be removed. Again, it should read…previous researches done on similar topic.

19. How many data collectors(nurses) were involved and why the use of nurses?

20. How many days were the data collectors trained?

21. Page 5, Line 128 was should be changed to 'were'.

22. Was the questionnaire prepared in English? Did the data collectors translate it into a different language, if yes which language was that?

23. Where was the pretesting done? Were there modifications after the pretesting? All these should be clarified in the methodology.

Variables

The authors have clarified their dependent and independent variables. They have also given an operational definition of dietary diversity.

24. Nonetheless they should have also specified the specific types of food groups (E.g. legumes and nuts, Diary products, roots and tubers, fruits and vegetables etc) and what informed the classification?

25. The authors should also group the independent variables into those related to the child, those related to the parents and those related to the household/social variables

26. Age range of the school children should also be specified? under the operational definition. Are the authors referring to those below 18 years, those under five or which category of school children?

27. There is the need for the authors to be consistent in the use of some of the independent variables. For example, media access in some cases is used as access to information. The latter is preferred.

Data analysis

28. Page 5, Line 149 was should be changed to 'were'

29. Page 5, Line 149 what was the descriptive statistics used to present?

30. Page 6, Line 150. The word effect presupposes causality. I suggest the effect should be replaced with association.

31. Page 6, Line 150 should read…” examine the association between each independent variable and the outcome variable, dietary diversity. The results were presented with crude odds ratios (COR) and adjusted odds ratios (AOR) and their respective 95% confidence intervals.
Results
32. Page 6 It is puzzling why the authors indicated 392 participated in their study. But from Table 1-4 all show that n=396. Why this contradiction?
33. Page 6 Line 161 please there are 2 'to' one should be omitted.
34. Page 6 Line 165, please there should be consistency. If the authors are presenting only percentages that is fine or if they wish to present frequencies and percentages this should be consistent (E.g. 333(84.1%).
35. The manuscript should be given to a professional editor to check for grammar, punctuations and language usage. There are instances of grammatical errors in the manuscript (e.g. See page 189-192) and line 194-196.
36. Page 7, Line 198 why the use of the term better instead of higher?
Discussion
37. Page 7 line 203. The authors have given the possible reasons for the differences in study findings. What about geographical differences?
38. Page 8 line 216 PLWHA and HAART should be defined at first use.

Table 1
Some of the variables need clarity.
39. E.g. number of children should be number of children in household, number of family should be family size, religion should be mother's religion, ethnicity should be mother's ethnicity, mother's education.
40. Taking marital status into consideration, what happens to those who are not married(unmarried)? Since there is husband's level of education. This presupposes that all the respondents are married. If not then it should be captured as partner's level of education.
41. Farmland also needs clarity. It is about ownership or access?
42. What informed the categorisation of average monthly income?
43. A radio and or television should be access to information with a yes or no response.

Table 2
44. Please take a critical look at some of the variables. How can the child get feeding if he engages in work for more than 3 hours? I suggest you make it "does the child get feeding if he/she engages in work for more than 3 hours with the response yes/no"
45. Does the child engage in work? The 'yes' category had a frequency of 55, the next question-if engaged in work how many hours, the frequency is 56 any reason for this? Relatedly since not all the variables in Table 2 add up to 396, this should be indicated as a footnote and the n=396 on the title should be removed.

Table 4
46. What informed the choice of reference categories? This should be clarified in the statistical analysis section of the manuscript.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Needs some language corrections before being published
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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