Author’s response to reviews

Title: Predictors of undernutrition among the elderly in Sodo zuriya district Wolaita zone, Ethiopia

Authors:

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Author’s response to reviews:

Dear Reviewers,

Thank you for your constructive comments; below we have tried to address the questions and comments.

Reviewer # 1

Thank you very much for your appreciation and fruitful revision throughout the process
General comment
Reviewer: How representative is the sample of Ethiopia as a whole?
Response: Although it is not national level survey, we can say that the sample can represent the southern region of Ethiopia.
Reviewer: How many people were excluded from the study?
Response: 5
Reviewer: What about oral and dental problems as predictors of under nutrition?
Response: The study was focusing untouched risk factors. It would have been good if we were considered it.
Reviewer: The conclusion about loneliness being a target for intervention does not reflect the results?
Response: Those who lost their spouse or divorced were more than two times more likely to develop under-nutrition…This was the reason we reached such conclusion. We have deleted as loneliness might not be defined in such way.

Reviewer # 2

In the abstract
Reviewer: Please check English language, hence it is among the major PH burdens district.
Response: Revised as…. Hence, it is among the major public health burdens in the district.
Reviewer: The conclusion about loneliness being a target for intervention does not reflect the results?
Response: Changes made as mentioned above line 36 and 41.

Background section
Reviewer: How recent are the estimates....” Eleven percent of the world population and 5% of Ethiopian population were categorized under elderly population- aged ≥ 60 years”
Response: The refs were less than four years at the time of the study.
Reviewer: It is unclear if the following sentence refers to elderly females being the most affected by malnutrition or the elderly and females separately.... “Older age group and females were more affected by malnutrition than their counter parts”
Response: To avoid confusion we have deleted “and females”

Methods section
Reviewer: How they arrived the sample size needed is not clear.
Response: The sample size was calculated using a single population proportion formula,

The assumptions were, estimated prevalence for undernutrition of elderly, 21.9% from study done in Gonder town, margin of error 5.0%, design effect of 2 and 10.0% non-response rate. Accordingly, the final sample size became 578.
A multi stage simple random sampling technique were applied to select ten kebeles out of 36 kebeles. In the selected 10 kebeles there were 207 sub-Kebeles. Then we considered a proportional allocation to the sample size to allocate participant for each sub-Kebeles, finally systematic sampling technique was used to select households included in the study. The sampling interval was calculated by dividing the total households in the selected sub-Kebeles of the Kebele by the final sample size, which gave every third household. Then after, the first household was selected from each sub-Kebeles, by spinning a pen, where the tip of the pen was pointed taken to be the first household. Then the sampling interval was added on to the first household to identify the consecutive households.
Reviewer: The exclusion included “seriously ill” people. How was this defined and measured? Would people with major illness causing weight loss e.g. cancer, heart failure etc. excluded?
Response: Those who were unable to communicate due to sickness were considered as seriously sick. Moreover, this study involved height measurement that requires being on barefoot, legs straight; shoulders relaxed and maintain an erect position. Those who were unable to do so were excluded.

Reviewer: It is unclear how dietary data were collected. Was this a 24 hour food diary?
Response: Yes, it was a 24 hour food diary.

Result section
Reviewer: How was mild, moderate and severe under nutrition defined?
Response: We classified malnutrition using subjective global assessment form (SGA). Which is validated tool to classify malnutrition clinically. Accordingly
Mild under nutrition: no decrease in food/nutrient intake; <it>&lt; 5% weight loss; no/minimal symptoms affecting food intake; no deficit in function;
Moderately malnourished: definite decrease in food/nutrient intake; 5% - 10% weight loss without stabilization or gain; mild/some symptoms affecting food intake;
Severely malnourished: severe deficit in food/nutrient intake; &gt; 10% weight loss which is ongoing; significant symptoms affecting food/ nutrient intake; severe functional deficit
Discussion section

Reviewer: The authors mentioned that sample size was smaller than needed. Therefore, what was the power of the study?
Response: We were trying to explain that the sample size was lower than the calculated due to non-response, we had 96% response rate. To avoid confusion we have deleted the single sentence. The power of the study was 80%.

Reviewer: List any acronyms used in the footnote.
Response: Comment accepted and changes made.

For reviewer #3
Reviewer: Change to associated factors of undernutrition among the elderly in southern Ethiopia
Response: We are hopeful that the term predictor equates associated factors although analytical studies commonly use the word predictor. If you insist, we will be changing.

Reviewer: Lighten the method part to add important results (e.g OR and p value for multivariate analysis)
Response: Changes made as requested.

Reviewer: Results line 46 add positively
Response: Changes made as requested.

Reviewer: Line 79 in the world or in Africa
Response: in the world

Reviewer: Line 81 site reference for these percentage and use ref recommended
Response: Reference was cited (10-14).

Reviewer: Line 85 Little and not little
Response: Changes made as requested

Reviewer: You did not specify if you included or not people with spine deformation or who could not stand. Indeed, it is bias for height measurement. Did you use predictive formula for height estimation for these people?
Response: We mentioned already that people who could not stand were excluded. We did not use predictive formula because of the exclusion criteria.

Reviewer: Line 149 include for people with overweight also obese people BMI>25 (overweight + obesity)
Response: Added as suggested.

Reviewer: Line 180-181 mistake for the percentage of smoking people and you forgot n for alcohol consumption
Response: n was added from table 2 for alcohol consumption. Regarding the smokers percentage, it is not mistake because we had a total of 39 smokers of which 31 smokes daily which is 79.4% as written on the table and document.

Reviewer: Line 191-193: you don’t described the classification of undernutrition methods
Response: We classified malnutrition using subjective global assessment form (SGA). Which is validated tool to classify malnutrition clinically. Accordingly
Mild under nutrition: no decrease in food/nutrient intake; < 5% weight loss; no/minimal symptoms affecting food intake; no deficit in function;
Moderately malnourished: definite decrease in food/nutrient intake; 5% - 10% weight loss without stabilization or gain; mild/some symptoms affecting food intake;
Severely malnourished: severe deficit in food/nutrient intake; &gt; 10% weight loss which is ongoing; significant symptoms affecting food/ nutrient intake; severe functional deficit

Reviewer: Line 194-196: when you compare undernutrition according to sex and age please add the significance to confirm higher or not
Response: We have not looked at significance rather compared prevalence among different age group and sex in the specified section which descriptive. But we have assessed presence of association in final model (multiple logistic regression) and the result shows that there is no association between sex and malnutrition as well age difference and malnutrition.

Reviewer: Line 202: add positively (positively associated)
Response: Changes made as suggested.

Reviewer: All percentage with one digit after the decimal point (eg 15 15.0)
Response: Changes made as suggested.

Reviewer: In table 3: check the spaces, point in excess, put all results OR and CI 95% with two digits after decimal point
Response: Changes made as suggested.

Reviewer: Figure 1: redo to be cleaner
Response: It was attached for further clarification not for publication purpose thus it is deleted.

Reviewer: Delete figure 2 and add results in table 2
Response: Fig 2 deleted and added to results in table 2

Reviewer: Line 215: explain the difference between men and women if it is significantly different
Response: This comparison was related to their respective proportion plus significance was explained in bivariate result table.

Reviewer: Line 236, 243, 263: don’t use the term independent predictor or independent factor, it is association in this cross-sectional study thus use associated factor
Response: Changes made as suggested.

Use this study for reference of….Under nutrition and obesity in two cities in developing countries: prevalence and associated factors in the EDAC study. J.P, GM………
Response: This material was cited in number 10.