PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Triple burden of malnutrition among mother-child pairs in low and middle-income countries: A cross-sectional study
AUTHORS	Chilot, Dagmawi; Belay, Daniel; Merid, Mehari; Kibret, Anteneh; Alem, Adugnaw; Asratie, Melaku; Teshager, Nahom; Aragaw, Fantu Mamo

VERSION 1 – REVIEW

REVIEWER	Huak, Chan Biostatistics Unit, Yong Loo Lin School of Medicine, National University Health System
REVIEW RETURNED	14-Jan-2023

GENERAL COMMENTS	Thank you for the interesting article. for a better understanding of the statistical analysis performed and the reliability of the results to be obtained 1. kindly explain what which variables were used for the weighting in Table 2 2. the multi-level cluster (I believe) is the country, suggest that Region should be added on as another level

REVIEWER	Khamis, Ahmed Gharib Muhimbili University of Health and Allied Sciences
REVIEW RETURNED	27-Jan-2023

GENERAL COMMENTS	Manuscript title: Triple burden of malnutrition among mother-child pairs in low and middle-income countries: In the era of sustainable development goals Title: the word in the era of sustainable development goals, what does that means? GENERAL COMMENTS The author have tried to design a research from a secondary data, however, it needs more efforts to make it scientific sound. English language expert is needed to correct the grammar, and flow of the paper. COMMENTS Abstract In general, the abstract is not appealing. The objective statement needs to have a brief background statement. This needs to be well organized. Strengths and limitations in the abstract are not important. Also, looking at the triple burden as a composite index is not reality since the interventions cannot be the same for under/over nutrition and micronutrients deficiencies. Hence, generalization of outcome might affect this research.

Line 35: Primary outcome: Your definition of triple burden needs to be briefly shown.

Page 3 Line 52: "Conclusion", remove s

Conclusion should reflect only what the data shows. Example, "Prevention of the problem requires collective efforts from the governments, the scientific and medical communities, and the industry towards changing dietary and lifestyle habits", it is just a recommendation.

Background

The background should show the gaps in research which intended to be filled.

Methods

Line 114: Mention the year range, not all fall in 2016.

Line 133-134: More explanation is needed on how did you construct the outcome variable (triple burden). You said that a triple burden is when a mother is overweight/obese and children is undernourished (stunting, wasting, underweight) or anemia. What definition of triple burden did you refer to? And its source.

My questions are does outcome variable combine all burden? What if a mother undernourished? Or mother over nourished while child is undernourished and not anemic? What is for overweight/obese children. I miss the idea behind this construct. Does the outcome variable binary? How did you code the outcome

This is a secondary data analysis, therefore, efforts are needed to explain each step of analysis in details in a way that another researcher can re-produce what you report. This include data cleaning, coding, and analysis.

Results

Better you start to show sub-sections in the results, e.g demographic and socioeconomic characteristics etc.

Does not make sense to say statistically positive association with AOR=2.2. Just use the term risk or odds increased/decrease, which is the essence of the logistic regression.

Line 179: Where is a Figure 1.

Which model did you report in the results? Model 1,2 and 3.

Discussion

I think having two population in your study affect the flow and general presentation of the discussion. Some paragraphs you explain about children and some mother nutrition status. I recommends you find the best way to discuss your results. The whole section have to be re-arranged for clarity.

Conclusion

Conclusion can be specific to what is presented in the paper. The word like "collective effort" can be too broad.

VERSION 1 – AUTHOR RESPONSE

REVIEWER: 1 (Dr. Chan Huak)

Thank you for the interesting article.

Re: Thank you very much.

For a better understanding of the statistical analysis performed and the reliability of the results to be obtained

☐ Kindly explain what which variables were used for the weighting in Table 2

Re: Thank you. Now we explain the variables used for weighting.

☐ The multi-level cluster (I believe) is the country, suggest that Region should be added on as another level

Re: Thank you. We managed the variability at the cluster level as the previous study did (https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0249978). Specifically, in our case, we have a single country that represents a region (e.g. Haiti-Carrabin, Tajikistan- central Asia) and could be less favorable to manage variability via the region. Therefore, using the cluster level could be better to account for the variability

REVIEWER: 2 (Dr. Ahmed Gharib)

☐ Title: the word in the era of sustainable development goals, what does that means?

Re: Thank you. Now we modified the title.

General comments

☐ The author have tried to design a research from a secondary data, however, it needs more efforts to make it scientific sound. English language expert is needed to correct the grammar, and flow of the paper.

Re: Thank you. Now we carefully revised the language and the flow.

Abstract

☐ In general, the abstract is not appealing. The objective statement needs to have a brief background statement. This needs to be well organized. Strengths and limitations in the abstract are not important. Also, looking at the triple burden as a composite index is not reality since the interventions cannot be the same for under/over nutrition and micronutrients deficiencies. Hence, generalization of outcome might affect this research.

Re: Thank you. The abstract is based on the BMJ Open format, starts from the objective and should include strengths and limitations. Some interventions such as education, media, and health provision could be the same for both under/over nutrition. Although all the interventions for the problem are not the same, the triple burden within a household is becoming increasing and we believe revealing the prevalence and the factors could alarm the stakeholders. Previous studies also assessed it but most of them were country-based (Nepal, India….) Ref 30 & 31 in the manuscript.

☐ Line 35: Primary outcome: Your definition of triple burden needs to be briefly shown.

Re: Thank you. Now we modified it however, because of the nature of the variable it will be incomplete if we make it very brief.

☐ Page 3 Line 52: "Conclusion", remove s

Re: Thank you. Now we removed "S"

☐ Conclusion should reflect only what the data shows. Example, "Prevention of the problem requires collective efforts from the governments, the scientific and medical communities, and the industry towards changing dietary and lifestyle habits", it is just a recommendation.

Re: Thank you. Now we corrected it accordingly (remove the recommendation part)

Background

☐ The background should show the gaps in research which intended to be filled.

Re: Thank you. Now we added the gap

Methods

☐ Line 114: Mention the year range, not all fall in 2016.

Re: Thank you. Now we added the year range

☐ Line 133-134: More explanation is needed on how did you construct the outcome variable (triple burden). You said that a triple burden is when a mother is overweight/obese and children is undernourished (stunting, wasting, underweight) or anemia. What definition of triple burden did you refer to? And its source. My questions are does outcome variable combine all burden? What if a mother undernourished? Or mother over nourished while child is undernourished and not anemic? What is for overweight/obese children. I miss the idea behind this construct.

Re: Thank you. Now we added more explanations and the sources

☐ Does the outcome variable binary? How did you code the outcome

Re: Thank you. It is binary, now we made it clear in the manuscript

☐ This is a secondary data analysis, therefore, efforts are needed to explain each step of analysis in details in a way that another researcher can re-produce what you report. This include data cleaning, coding, and analysis.

Re: Thank you. Now we elaborate on this in the methodology part. As you know the DHS uses the same standard tool & procedure to collect the data and this makes it easier to clean, code and analyze the data.

Results

☐ Better you start to show sub-sections in the results, e.g demographic and socioeconomic characteristics etc.

Re: Thank you. Now we started with subsection

☐ Does not make sense to say statistically positive association with AOR=2.2. Just use the term risk or odds increased/decrease, which is the essence of the logistic regression.

Re: Thank you. Now we correct it accordingly

☐ Line 179: Where is a Figure 1?

Re: Thank you. We attached it separately.

☐ Which model did you report in the results? Model 1, 2 and 3.

Re: Thank you. We reported model 3. We mentioned the best-fitted model was model 3 under "random parameter estimation & model selection"

Discussion

☐ I think having two population in your study affect the flow and general presentation of the discussion. Some paragraphs you explain about children and some mother nutrition status. I recommends you find the best way to discuss your results. The whole section have to be re-arranged for clarity.

Re: Thank you. As you have said the flow might be affected but we had to discuss this based on the evidence. We hope the readers are mindful and focused on the findings and possible justifications we provided. Now we carefully revise the discussion part to make it clear for the readers.

Conclusion

☐ Conclusion can be specific to what is presented in the paper. The word like "collective effort" can be too broad.

Re: Thank you. Now we made it specific.

VERSION 2 – REVIEW

REVIEWER	Huak, Chan Biostatistics Unit, Yong Loo Lin School of Medicine, National University Health System
REVIEW RETURNED	20-Mar-2023

GENERAL COMMENTS	Thank you for refining the manuscript