Author's response to reviews

Title: Prevalence and Correlates of Leisure-Time Physical Activity among Nigerians

Authors:

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Author's response to reviews:

The Editor-in-Chief April 21, 2014
BMC Public Health,
Re: Leisure-Time Physical Activity among Nigerians

We hereby present a revised version of our manuscript titled ‘Leisure-Time Physical Activity among Nigerians’. The reviewers’ comments were helpful, they were used as a guide to revise the manuscript. Below are the comments and our responses to them. Thank you for reviewing our manuscript and considering it for publication.

Reviewer 1

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

Comment-Title: Title of the paper “Leisure-time physical activity among Nigerians” is misleading and uninformative for the reader. The paper examines the determinants of leisure-time physical activity, uses a cross-sectional data and focuses on urban individuals. This should be clarified in the title.

Response-We have changed the title of the paper to “Prevalence and Correlates of Leisure-Time Physical Activity among Nigerians”. We did not use determinants as this is suggestive of a cause and effect.

Comment-Abstract, “Methods”-part is lacking necessary information that describes the dataset used in this study such as year of the study, age groups examined, and participation rate similarly described as in the Methods-sections. The main variables and outcome should also be shortly described.

Response-We were concerned about replicating the methods section of the main paper while staying within the word limit of the abstract. In the results section of the abstract, we provide characteristics of the study participants.

Comment-Abstract, “Results”-part: The results is too long for my opinion, only focus on the main results from where the conclusions are drawn.
Response-We provided results for all the variables mentioned in the conclusion. We have made the results section shorter.

Comment-Introduction, Third para: “…as the use of these methods are not feasible in large epidemiology studies, physical activity is usually measured by self-reports with questionnaires.” This seem a little too arbitrary sentence. To my knowledge, recently there has been a quite few large epidemiological studies that have applied objective methods to measure PA. The authors are suggested to open this sentence more.

Response-We have revised the manuscript accordingly.

Comment-Introduction: the conclusion refers WHO’s recommendations of physical activity but the information is missing from the introduction. Is presented in the discussion but should already be presented earlier. The Authors are encouraged to add the original reference for PA recommendations and open them to the reader in the introductions.

Response- We have revised the manuscript accordingly.

Comment-Introduction: The authors should add another paragraph to the end of introduction to describe the reasoning and justification why this kind of study is needed and also present to research questions as well as hypothesis (if applicable?).

Response-We have revised the last paragraph to clearly state the rationale for this study which we built upon from the preceding paragraphs.

Comment-Discussion: The table 1 show significant inequalities in physical activity (in M ETH) based on education and occupation as well as socioeconomic status, but this issue has not been discussed? Moreover, the results regarding the associations between smoking, alcohol and physical activity. Why did you not examine all of these associations in Table2?

Response-Alcohol was examined in Table 2. Smoking was not examined because there the variation between the groups was poor (only 4% of the population smoked), as shown in Table 1. We discussed the results that were associated with leisure time physical activity.

Comment-Discussion: The discussion lacks reflection of the weaknesses and strengths of the current study. Authors are encouraged to add this kind of reasoning the discussion.

Response-We have included a paragraph to show the important limitations of our study and the strengths.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Comment-Methods, “Demographic and socioeconomic factors”: In the abstract also results are shown based on marital status but in the methods there is no information about the marital status measures?
Response- We have included marital status in the methods.

Comment-Statistical analyses, first para: The information about the “physical activity was analysed in tertiles, “calculation of body mass index” should be moved into section were the different measures are described before the “statistical analyses”-section. Statistical analyses section should include only analyze strategy.

Response- We have moved the BMI information as suggested but did not move the information on analyzing physical activity in tertiles as this is part of our analysis technique.

Comment-Results: The place markings of where the tables should be place are missing from the text?
Response-No, they are shown in the text.

REVIEWER 2

Comment-Introduction. The concept inactivity (i.e not reaching the current recommendations on physical activity) should for clarity be explained/defined as nowadays the area of inactivity/sedentary behavior is also of interest and should not be used synonymous with not reaching the recommendation.

Response-We use the WHO definition and as the previous reviewer suggested, have included this in the introduction for clarification.

Comment-Introduction, first paragraph, last sentence. The last statement stating that “the levels of inactivity are rising” need a better reference nor be revised. As far as I know it all depend on how it is measured and few have followed the behavior over time using the same methodology. In many countries the prevalence of being active during leisure time has increased.

Response-We included the WHO Global Recommendations on Physical Activity for Health as a reference for the statement.

Comment-Introduction, first line page 5. The statement that objective measures are not feasible in large epidemiological studies would benefit from being revised. Nowadays many countries and researchers uses and finds it very feasible to use objective measures. Maybe add something about low-income countries.

Response-We have revised this statement as suggested by the first reviewer.

Comment-Introduction, page 5 regarding the IPAQ. Even though the others of the paper referred to (#15) state that IPAQ overestimate I would suggest the authors to be more stringent as the methods used measures different things. Consider use the word higher instead of overestimate.

Response-“overestimate’, was quoted from the reference papers, Lee et. al and Hallal et. al

Response-Consider moving the part on specific method and its validity etc to the
method section and keep the introduction based upon what type of research that is needed.

Response-We considered this. Since the part on specific method and its validity …..provides a rationale for our study and the methods section is focused on how our study was implemented, we did not move it.

Comment-The choice of using the NHS questionnaire is still not clear for me? Has it been tested in an African population? Are the activities given relevant for the population of interest?

Response-We use the NHS physical activity questionnaire because it had better reproducibility compared to the IPAQ-SF and moderate correlation with average daily pedometer steps, total accelerometer counts per day and cardiovascular fitness. Yes, the activities are relevant to Nigerians.

Comment-Page 6, Physical activity. The authors state on line 5 that also sedentary activities was reported. How was that used and interpreted in this study?

Response-We were describing the NHS questionnaire, as stated. This study is focused on leisure-time physical activity.

Comments-Page 6, Physical activity. Last sentence starting with Based on…. Please consider rephrasing, this is not clear for me. Why was not the instruction for the questionnaire, when used in the NHS used? And if a change was done that need to be justified. Further, if still appropriate to what is actually done, rephrase how the raw data was transformed to MET hours. Furthermore, it is not clear to me how the calculation of reaching the current recommendations was done, especially when the questionnaire asks about average over the year.

Response-We have revised the section to make it clearer.

Comment-Page 7, statistical analysis. Please justify why individuals with underweight was excluded + see my comments above on the physical activity measure. I also wonder about how appropriate it is to report mean and SD when the MET-hours/day data are so skewed (this is taken care of by tertiles, but the descriptives should be reported using for example median values.

Response-The proportion of underweight individuals was very small (1.6%, 17/1058). We excluded them because they may have underlying illnesses that may be related to their activity levels. Since we stratified by tertiles and show these results for all the descriptive variables, we did not show median values.

Comment-Page 9. Results, para 1, line 12. Avoid using terms like determinant when it is a cross-sectional study. i.e correlate is more appropriate. I also suggest to only report the findings in the result section, not interpret them.

Response-Yes, correlate is more appropriate; thus we have revised the manuscript accordingly.

Comment-The reporting of fulfillment of recommendations does not seem
appropriate. Both with regard to the PA measure that is not aimed to measure this, more an overall picture and with regard to the findings. If reported I strongly suggest a more nuanced way of stating and discussing this and also a stronger motivation why and how this can be calculated based upon the PAQ.
Response-We have checked the WHO recommendation and revised accordingly.
Comment-The discussion and conclusion need to be rewritten in accordance to the comments above.
Response-The manuscript has been revised according to the comments.
Comment- In table to state as a footnote what PR is
Response-We have included this.