Author's response to reviews

Title: Body Composition, Water turnover and Physical activity among women in Narok County, Kenya

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Author's response to reviews: see over
Executive Editor,
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9th April 2014

Dear Editor,

Re: Submission of Revised Manuscript

I am writing to submit our revised manuscript entitled ‘Body composition, water turnover and physical activity among women in Narok County, Kenya’ for consideration in the BMC Public Health.

We acknowledge the comments from the reviewers, and although we were not able solve all of them, we have made an effort give point-by-point answers to the comments below:

RESPONSES TO THE REVIEWER 1 COMMENTS: Robert J Brychta

Major compulsory revisions

1. The data was collected during the middle of the season when there was little variation in the temperature and the researchers did not note the temperature during the data collection since it was not an objective, thus was not included as a variable. Unfortunately, we could not retrospectively retrieve on day to day variation in temperature. However, we have noted the average temperature during the season (March to May) average minimum of 14°C and average maximum of 24°C in the study area in the manuscript (pg. 9, paragraph 2).

2. Wear time was detected using a minimum of 2 wear days and a minimum of 600 minutes per day during validated of the data. Wear time has been noted as important and was included in the analysis and the results reported in the results section (pg. 6, paragraph 2).

Minor essential revisions

1. We have noted the abbreviations that were not defined when used for the first time and we have defined them accordingly (throughout the manuscript).

2. We have included the aim to describe the differences between rural and urban as the researchers have noted the diverse lifestyles among the two groups thus the need to assess the differences in the two groups in terms of physical activity, body composition and water turnover (pg.4 paragraph 1)

3. We have explained in our methods section how the differences occurred between the 28 to 22 women in the assessment. During the validation of the accelerometer data, some women did not meet the cut-offs required for the wear time days to be termed as valid and thus were left out of the analysis for the physical activity data (pg. 5. Paragraph 1)
4. The body composition has also been compared together with physical activity. This is because it was the main objective of the paper.

5. We could have used r but in our case we opted for $r^2$ since we were more interested in determining the predictor variables and not so much the direction of the relationship between variables.

6. We have noted the phrase ‘on top of’ was confusing and instead we have replaced it with ‘in addition to’.

7. The difference here occurred due to the differences in sample sizes and we have included the sample size at the end of the result. $r^2 = .45$ was for $n=28$ while $r^2 = .38$ was for $n=22$ in the second table because we were adding it to physical activity.

8. We were not able to get comparable data at the time of writing up the manuscript that is why we used unpublished data, however we have now included a relevant reference (pg.11 paragraph 1).

9. We have noted the missing units and we have included them accordingly (all the tables).

RESPONSES TO REVIEWER 2 COMMENTS: MACIEF BUCHOWSKI

Major compulsory changes:

- Wear time has been reported (pg. 7 paragraph 2).
- The rationale for dividing the group into rural and urban has been included in the study objectives (pg.4 paragraph 1)

Minor essential revisions:

- We have detailed the sampling procedure for selecting the women in the methods section (pg. 5 paragraph 1)
- Vector Magnitude counts – have been reported as it is because we note that some studies report the figures as they are.
- We have added the missing references in the manuscript (pg. 9 paragraph 2, 3 ; pg. 10)
- We compared the results with that of unpublished data because we did not find any study that was comparable to ours at the time of writing but efforts have been put in looking for related relevant studies to be included (pg. 11 paragraph 1)

Thank you again for accepting this manuscript for review and we look forward to a positive response.

Kind regards,

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