Author's response to reviews

Title: Prevalence of obesity in a rural Asian Indian (Bangladeshi) population and its determinants

Authors:

Tasnima Siddiquee Dr (tasnimasiddiquee08@yahoo.com)
Bishwajit Bhowmik Dr (doctorbiplob@gmail.com)
Nayla CD V Moreira Dr (n.c.d.v.moreira@studmed.uio.no)
Hajera Mahtab Prof (hajeramahtab@gmail.com)
AK A Khan Prof (president@dab-bd.org)
Akhtar Hussain Prof (hussain.akhtar@medisin.uio.no)

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Author's response to reviews: see over
Dear Editor

We thank you for reviewing our manuscript and your important remarks for the development of the paper. We have improved the manuscript in accordance with the reviewer comments:

Reviewer: 1

**Major comments**

**Background**

- No literature review on prevalence of obesity in Bangladesh, what is known?, what is not known?, what additional issues addressed in this study?

- This study does not give any info on cut offs for obesity, so following sentence is not appropriate rationale for study “there are few reports and only small scale studies in the south Asian region based on these cut offs ………” This sentence should be removed and appropriate rationale for the current study should be added.

**Response:** We have made necessary changes in Background as per reviewer comments (page 3).

**Methods**

- The content should be organized under appropriate sub headings

  o Study design/population

  o Sample size and sampling procedure

  o Data collection: ques, measurements

  o Definitions

  o Human subjects protection

- Sample size calculation not mentioned

- Random sampling procedure does not seem feasible. Elaborate how it was done. How was the sampling frame obtained?

- Verbal consent not adequate. In case of low literacy, written consent is supposed to read out to the respondent and thumb impression should be taken. However, it should be clearly mentioned whether ethics committee gave waiver on written consent and whether country ethics guidelines permit the same.

- Operation definitions and tools used for diet/ physical activity should be elaborated.
**Response:** We have made necessary changes in Method section as per reviewer comments (page 4-7).

Results

• What were the reasons for non-response?

**Response:** We have explained the non-response issue in Study design and participant selection section (page 4, para 1, line 15-18).

• Why overweight data presented 23-25 kg/m², Asian guidelines cut offs are 23-27.5 and 27.5 and above. Please check the refs carefully for cut offs

**Response:** We have explained the definition issue in discussion section (page 8,9, para 5, line 1-9).

• Unadjusted OR should be presented based on 2x2 tables.

**Response:** We have made necessary changes as per advice.

• Confounders/ effect modifiers should be identified before doing multivariate analysis.

**Response:** We have made necessary changes as per advice.

• Contrasting finding between education and SES are not clear because usually higher SES indicates better education.

**Response:** We are agreed with reviewer comment. We have explained the issue (page 10, para 1, line 7-13).

• Adjusted OR should be based on adjusting only confounders/covariates. Rationale for adjusting all variables not clear. It is not appropriate method for epidemiological analysis. Authors need to distinguish between risk factors and covariates based on the plausibility before proceeding to multivariate analysis.

**Response:** We have made necessary changes as per advice.

Discussion

• Too long and not focused on key findings

• Need to be better organized

• First para can discuss the obesity prevalence in context of what is already known in Bangladesh in addition to already given lit review from other countries

• 2nd and 3rd para can focus on modifiable and non-modifiable risk factors. Relevance of risk factors in context of feasible/potential interventions should be discussed.
Response We have made necessary changes in discussion section as per advice.

Minor comments: Table

- Denominators should be mentioned in titles (N=.....)
- Denominators to added for column headings in tables 2-5
- Unadjusted OR to be added in table 6

Response We have made necessary changes in respective tables.

Reviewer: 2

Major compulsory reviews:

The study needs a hypothesis and more than just the presentation of descriptive associations. The authors present some educational, SES, lifestyle variables that are not used in the analysis to show any impact of these on the overweight/obesity levels.

Response We have made changes in hypothesis and shown the association table 6 under the headline of general obesity (overweight/obesity define by BMI) and central obesity defined by waist circumference.

We do hope that with the changes and the explanations made the paper will now be accepted for publication.

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Sincerely yours

Dr. Bishwajit Bhowmik