Reviewer’s report

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

Version: 2 Date: 22 December 2014

Reviewer: Prabhdeep Kaur

Reviewer’s report:

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.

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.

Results

• What were the reasons for non response?
• 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
• Unadjusted OR should be presented based on 2x2 tables.
• Confounders/ effect modifiers should be identified before doing multivariate analysis.
• Contrasting finding between education and SES are not clear because usually higher SES indicates better education.
• 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.

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.

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

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests