Reviewer’s report

Title: Clustering of non-communicable diseases risk factors in Bangladeshi adults: An analysis of STEPS survey 2013

Version: 5 Date: 20 March 2015

Reviewer: Nasheeta Peer

Reviewer’s report:

Major Compulsory Revisions

Introduction

Please expand on this section - what is the burden of CVD and NCD in Bangladesh?

Please remove any mention of the metabolic syndrome as it is not relevant to this paper.

Please rephrase your aims – I do not like the use of the term clustering in this context – perhaps say the presence of multiple risk factors.

Methods

Please shorten this section – some bits are unnecessarily wordy.

Results

I suggest that you present Tables 1-4 by gender (men, women and total) with p-values rather than by the NCD risk factors.

Also, the tables are very busy and make for difficult reading when you present both the prevalence and the absolute numbers. I suggest that you remove the number of participants and only present the prevalence, please.

Table 1: Please provide socio-demographic data in greater detail by gender (men, women and total) and with p-values. If possible, please include the mean ages, employment status, quality of housing (shacks, formal housing), wealth/socioeconomic indicators, literacy level, etc.

Tables 2 and 3: I suggest that you combine these, and present the data by total/combined, men, women, and the p-values – like the example below:

NCD risk factor Total (n=) Men (n=) Women (n=) p-value

Blood pressure
Mean,SD (mmHg)
SBP
DBP
Hypertension, %
BMI
Mean, SD (kg/m2)
Overweight, %
Obesity, %

For tobacco use, please indicate whether this is daily use, occasional use or any frequency.

If there are any significant differences by age category for an NCD risk factor, you may wish to present this in a bar graph or mention it in the text.

Table 4: I suggest that you remove this table. Instead you may draw a bar graph/figure with <=2, 3, and >=4 risk factors for men and women, highlighting which NCD risk factors cluster in this population and whether there are significant differences by gender in the text.

Table 5: This should please include the unadjusted and adjusted OR for the socio-demographic variables (presented in Table 1) with NCD clusters. Depending on significant differences, these may be presented separately for men and women, and by 3 categories of risk factor clusters – compare <=2 with having 3 and >=4 risk factors.

In this table, I suggest that you enter age by the 5 age categories using 25-34 years as your reference group.

Re hypertension – what proportion of hypertensive participants were aware of their diagnosis, receiving treatment and controlled?

Discussion

The well-known clustering of risk factors usually refers to the cardio-metabolic risk factors of diabetes, dyslipidaemia, obesity and hypertension. Considering that you have only assessed the latter 2 in this study, you should probably not use the term ‘clustering’ but rather say the presence of multiple risk factors.

I also suggest that you change the title of this paper

Considering that this is the 2nd such survey undertaken in Bangladesh, I suggest that you compare your findings from this survey with the previous one and describe any differences.

Re fruits – if these are expensive do you think a campaign promoting fruit intake and a change in cultural attitudes will increase intake among the poor in Bangladesh?

Re physical activity – you do not seem to trust your data. Why is this so? Do you think there is a problem with your methodology? While interesting, your discussion on physical activity takes a tangential slant to rickshaws, bicycles and government action. It needs to be more focused on your study findings.
I do not like the phrase ‘problem of dual use of tobacco’. Please be more explicit and rather say smoked and smokeless tobacco use. You mention that smoking is a problem in men but do not expand on this. Consequently, your discussion section seems rather erratic, unfortunately. There is no logical flow linking one sentence to the next. For example, in this paragraph you first mention ‘dual’ tobacco use in men, then the next sentence is about low rates in women, then you mention protecting women from aggressive marketing and the following sentence refers to smokeless tobacco use in women, and so on.

Hypertension seems to be increasing in Bangladesh. Instead of simply providing the hypertension rates from other studies you need to discuss the reasons for the high and rising prevalence of hypertension in your study, please. Link this to the prevalence of overweight and obesity in your study. Are the risk factors for hypertension the same for men and women?

The same applies to overweight and obesity – the emphasis should be on the findings of your study and the likely reasons for your findings. Always closely link up other studies you have mentioned to your findings.

Under study limitations, please highlight that self-reported/documented diabetes is by no means an indication of the prevalence in a particular population. What is the proportion of know/unknown diabetes in Bangladesh? Please include if this data is available.

Level of interest: An article of limited interest

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'