Reviewer's report

Title: Gender, socioeconomic status and metabolic syndrome in middle-aged and old adults

Version: 1 Date: 1 August 2007

Reviewer: Adrian Cameron

Reviewer's report:

General

This manuscript presents data on cross-sectional associations between the metabolic syndrome (MetS) and socioeconomic indicators in a medium sized sample from Portugal. As noted by the authors, there is considerable literature available on the prevalence of the MetS and its components, and their associations with various socioeconomic factors, so this is not particularly novel work. The manuscript is pleasantly brief, but suffers somewhat from a lack of direction.

--------------------------------------------------------------------------------

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

1) No research questions are defined in the introduction - reporting associations is only useful if there is a specific research aim behind them.

2) The ATPIII MetS definition was updated in 2005 (Grundy et al). The authors should use this, rather than the 2001 definition.

3) The discussion needs to more thoroughly address the question of why the MetS would be more common in lower SES groups.

4) The inclusion of height in a paper on SES and MetS is unexpected and not justified in the discussion.

5) The speculation surrounding education and early development of the MetS in the limitations section is highly speculative (and probably wrong), and should be removed.

6) The possibility that the different observations in men and women is due to differential misclassification error in the instruments used (i.e. education, physical activity, social class not measured equally well in men and women) needs to be explored in the discussion.

7) From reference 16, it appears that this survey was set up as a case control study of MI. The full details surrounding the study design and sampling need to be presented. Was the entire city of Porto the sample frame?

8) Why was no measure of income, or geographic measure of SES utilised?

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

1) The quality of the writing is not sufficiently high as to make the manuscript easily understood, and should be improved upon prior to publication.

2) In tables 2a and 2b, the OR adjusted for age as well as blood pressure is unnecessary (the ORs are virtually unchanged from the previous column only adjusting for age). In addition, the values for occupation in table 2a appear to be incorrect - the value for housewives and unemployed between column 2 and 3 have been switched.

3) The label for reference class in tables 2a and 2b is unnecessary. The number 1 with no confidence intervals is a clear indication of which is the reference class.

4) The word tertiles rather than thirds should be used.

5) The 4th sentence in the 2nd para of the discussion is poorly constructed and should be removed.

6) Are the figures in table 1 n(%)? this is not clear.

7) What are the p-values in table 1 comparing?

8) In tables 2a and 2b, the p-values need to be labeled as "p for trend"

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests