Reviewer’s report

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

Version: 2 Date: 9 November 2007

Reviewer: Adrian Cameron

Reviewer’s report:

Thankyou to the authors for their work in revising the manuscript according to the recommendations of the reviewers. My comments in relation to the author’s response are below:

“2) In fact, the referee is right in pointing out that that there has been a revision of the definition of the ATP III in 2005. However, we decided to use the original definition because it is well-established and most of the published evidence used the original ATP III, allowing the comparison between studies.”

This is not a good reason not to use the most up-to-date version. There is a good reason the definition was changed, and that is because it is better than the previous version, and therefore the intention is to use this, rather than the old version. Imagine if all authors used this rationale - the new (and better) definition would never get used! I think the authors should at the very least report prevalence based on the new version of this definition.

“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?”

This comment has not been addressed.

“8) We have measured personal income as a categorical variable only for approximately 50% of our sample (n=983). Moreover, despite the popularity and predictive capacity of income based measures, the collection of income data is problematic. Specifically, income is a sensitive and private topic, and as a consequence, income questions asked in the context of survey research are susceptible to high rates of non-response. Furthermore, these non-response rates have been shown to be significantly higher among the elderly, in women, in persons of low socioeconomic position, the physically, cognitively and psychologically impaired, and usually in those reporting poorer health. Rather than being a random phenomenon therefore, the answer to personal income is often systematically related to a respondent’s socio demographic and health
characteristics. For these reasons, we have decided to not to consider this variable in the analysis.

Regarding the geographic distribution of the participants, we did a preliminary analysis, in which we considered the place of residence, aggregated according to four major town suburbs, by geographical proximity and social characteristics used as an additional surrogate for socio-economic status. However, we did not find any difference in the metabolic syndrome prevalence according to the participant place of residence, both in males and in females. Additionally, we could not accurately establish the actual differences in socio-economic characteristics between the classified suburbs, so it was our decision to omit this indicator from the results.”

Mention of these facts (why income and geographic SES measures were not included) should be included in the methods section

“Also, we apologized, but in fact the values for occupation in table 2 were wrong. Actually, the values for the housewives and unemployed were switched.”

Please check again that these figures are correct (by reanalysing the data) – the alteration made to the table was not what was expected. Are the authors 100% sure that these figures are correct?

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

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