Reviewer's report

Title: Gender-Dependent Associations between Socioeconomic Status and Metabolic Syndrome: A cross-sectional study in the Adult Saudi Population

Version: 1 Date: 6 January 2014

Reviewer: David Rehkopf

Reviewer's report:

Major Compulsory Revisions.

1. Although there are strong priors for gender differences in metabolic syndrome, these differences should be statistically tested as they are central to the arguments made in the manuscript. That is, it should be tested whether, for example, there are gender differences in the relationship of income and metabolic syndrome, not just whether there are associations within men and within women.

2. While it is generally appropriate to treat medication use as having the metabolic syndrome, there is an important implication for practice for whether high rates of metabolic syndrome in some groups are actually due to high clinical levels, or due to high use of appropriate medications. So sensitivity analyses of all results should be presented without counting medication use toward metabolic syndrome definition.

3. The tests of trend with age that are significant should be reported. If a change or difference is talked about, a related test statistic should be presented, even if the trends appear visually clear.

Minor Essential Revisions.

1. Most of the time physical activity is not considered an indicator of socioeconomic status. This should be justified or changed.

2. What is meant in the last sentence of the second paragraph of the background section is unclear.

3. In the discussion the statement that higher income classes are more likely to have a "lack of nutritional awareness and proper food choices" should be cited to support it as this runs counter to literature in other countries.

4. It is not clear why housewives would have almost negligible involvement in any type of physical activity. The reasons for this should be explained and cited if literature exists.

Level of interest: An article whose findings are important to those with closely related research interests
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.