Reviewer’s report

Title: Metabolic syndrome in a cohort of Chinese schoolchildren: high prevalence and a single factor underlying?

Version: 3 Date: 3 November 2012

Reviewer: Constantina Papoutsakis

Reviewer’s report:

This paper compares the prevalence of MS using 2 definitions: IDF and modified ATPIII and employs factor analysis to identify the features that play the biggest role in the MS.

Unfortunately the re-submitted paper is not ‘publishable’ as of yet.

The authors should be given the opportunity to revise their written work.

All following points are major compulsory revisions. These are:

1. Responses and manuscript continue to be difficult to understand. The ‘essence’ of a good paper is there but the execution in English does suffer. As written the paper cannot be published. I strongly suggest you use the services of an expert who can edit appropriately the quality of English (phrasing/syntax/grammar/spelling) throughout the paper itself and responses to reviewers as well.

2. Revise the title again. I do not understand the title, plus it is not a correct sentence… Make your title easy to understand and informative as to your findings.

3. (one minor point) Last sentence of background (in abstract) is long. Re-write.

4. P4. Methods: About the added cut offs recommended by the working group on obesity in China some correction is needed. You cannot possibly have #95th in the overweight and # 95th in the obese category. One of these two equal signs must be removed…

5. p.5 You provided in the paper the rationale for including children under 10. However, you did not explicitly list the specific criteria used for children under 10. As written this is still not clear in the paper.

6. In all tables listing MS criteria, include the specific cut-offs in footnotes, esp. T2 and T3.

7. Having read the more detailed explanation of the rationale of the exploratory factor analysis, this reviewer wonders why you have not provided prevalence of each MS factor in the entire cohort. You have only provided info in this regard by
gender or weight status. This information is missing -prevalence of each MS factor in the entire cohort- and should be listed in abstract (results) and in Tables.

8. (one minor point) What is MAP? Mean Arterial Pressure? This abbreviation is not explained in the body of the paper (saw it was defined in Tables though).

9. Discussion:
Continues to require extensive revision. As before, there are many areas that are difficult to understand because of the poor quality of English. Please consider whether each paragraph has a main theme and whether the flow from one paragraph to the next is reasonable as put your discussion together.

10. The newly revised discussion is excessively long. The authors may state the same points with half the length.

13. Your findings that Tanner did not alter your results are well supported. However, the discussion still does not include studies that have found the opposite. This needs to be discussed in a way that you include findings that are not in agreement w. yours. Several papers have been published on metabolic syndrome and adipokines in children.

14. At this time, it is still not clear why adiponectin/leptin ratio or either one on its own would be of added value. Your explanation on healthy vs nohealthy metabolically obese would make some sense if your analysis focused on the obese only. As written, the paper does provided any added value to measuring adipokines, and such an unsupported claim is best removed throughout the paper.

15. Statistical analysis: State the listed confounding factors in your statistical methods.

16. Analyze the data by adding adjustment for BMI. Chances are all adipokine involvement is mediated by BMI which again is more easily measured than adipokines.

Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

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

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