Author's response to reviews

Title: Prevalence of Metabolic Syndrome among Urban Community Residents in China

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Author's response to reviews: see over
Dear Editor of BMC Public Health,

We are submitting a revision of the manuscript entitled “Prevalence of Metabolic Syndrome among Urban Community Residents in China” (MS#2144439436844481) for consideration of publication in BMC Public Health.

We thank all the reviewers for their constructive and critical review of our first submission. In this revision, we have addressed all the concerns raised by each of the three reviewers. Changes made are marked by underscores in the body of the text. Point-to-point revisions addressing each reviewer’s concerns are detailed below.

Thank you for your consideration of our manuscript for publication in BMC Public Health.

Sincerely,

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Reviewer #1 Comments:

Concern 1: “In the abstract, the authors should state use of multiple logistic regression in the method, but not in the result section”. We have made these changes as suggested.

Concern 2: “In page 3, the first paragraph and also page 6, the MetS definition, the MetS definition of the International Diabetes Federation (IDF) Task Force on Epidemiology and Prevention seems NOT to be reference 13, which was an original study on MetS prevalence in China. Also, It seems that references 4 and 5 are the same study. The authors need to re-check the references carefully”. We have corrected these errors and updated references.

Concern 3: “Why the study chose to the age cutoff point of 32 years as the entry age”. The study design used age cut-off ≥ 30 years. The target population was randomly selected in 2008, but the survey did not get off ground until 2009. We reported the actual age at entry here.

Concern 4: “LDL cholesterol is usually calculated but not directly measured in the plasma or sera. The study really measured LDL cholesterol in plasma/sera?” LDL was directly measured.

Concern 5: “The authors stated “The MetS may progress to overt diabetes and significantly increase the risk of cardiovascular diseases...”. MetS and diabetes are not the same disease at a different stage. It is better to say, MetS increases the risk of diabetes.” We have re-worded the sentence as suggested.

Reviewer #2 Comments

Concern 1: “The authors have mainly centered their introduction and discussion on giving references from studies conducted in China. It is always worthwhile to mention the references of international studies as well.” We appreciate the reviewer’s insightful suggestion. We have re-done all analyses with additional adjustment for age at menarche and parity, and updated the tables accordingly.

Concern 2: “Mention in the manuscript the rationale for only including subjects 32 years or older in the study”. See Reviewer #1 Concern 3 above.

Concern 3: “Introduction heading is missing before the start of introduction section”. Heading has been added.

Concern 4: “In the statistical analysis section “We calculated the distribution of participants who met .........................or the modified NCEP ATP III” and “We also estimated ....................levels of education”. This information is not part of statistical analysis and should instead be incorporated in the methods section”. We respectfully disagree with the reviewer on this, and believe this fits best to the flow of the manuscript.
**Concern 5:** “The study does have some limitations and it is advisable to mention the limitations in the discussion section”. **We have added limitations in discussion.**

Reviewer #3 Comments 3

**Concern 1:** “My only comment is that the author should include discussion with another study, the Shanghai Men Health Study, that determined the prevalence and determinants of the metabolic syndrome according to 3 definitions and they found an inverse association with smoking unlike this study”. **We thank the reviewer for bringing our attention to the Shanghai Men’s Health by Villegas R et. al. Close review of the paper indicates the Shanghai Men’s Health Study found a positive but non-significant association of smoking with MetS. This is in line with our results. We have added discussion of the Shanghai Men’s Health Study.**