Author's response to reviews

Title: Correlation between metabolic syndrome and knee osteoarthritis; data from the Korean National Health and Nutrition Examination Survey (KNHANES)

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Author's response to reviews: see over
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Resubmission of Manuscript ID 1510936328275037: Relationship between metabolic syndrome and knee osteoarthritis; data from the Korean National Health and Nutrition Examination Survey (KNHANES)

Dear Editor:

Thank you for the opportunity to revise and resubmit our paper, entitled “Relationship between metabolic syndrome and knee osteoarthritis: data from the Korean National Health and Nutrition Examination Survey (KNHANES),” to BMC Public Health. We would deeply appreciate it if you would consider our responses to the reviewer’s comments and our revised manuscript for publication. We carefully considered reviewer 1’s new recommendations and tried our best to make any necessary corrections.

We have changed Table 3 as well as revised our manuscript according to the changes in the table. We, authors, discussed with statisticians in length concerning ways to express the association between knee OA and MetS or its parameters, considering the reviewer's recommendations. We tried to make it easier for readers to understand and, we believe, you can see our efforts towards this.

All of the authors agreed to the changes and approved the revised manuscript. We look forward to constructive responses from you and your esteemed journal. Thank you again for allowing us to resubmit our manuscript.

Sincerely,

Kwan Kyu Park,
Corresponding author.
The critical issue is whether knee osteoarthritis is associated with WC alone (in which case the link might be largely via mechanical effects) or with MetS as well (for which WC mediates). In this instance support for the role pro-inflammatory state may be provided. Therefore, you might analyze and present findings in Table 3 as follows.

Please, omit the column with unadjusted ORs. Stratify to gender Models 1 and 2. Model 1 should exclude the components of MetS, preferably replacing these with body height (per increment of 6 cm), and seeking the age-adjusted OR of MetS in women compared with men. In Model 2, MetS itself needs deletion, since the OR of the individual components independent of the adjusted confounders is sought.

Findings, discussion and conclusion then should state (if found so) that knee osteoarthritis is, indeed, linked to MetS via the mediation of WC.

Numerous linguistic and grammar mistakes still await correction.

→ Thank you for the comments. We discussed with statisticians in length concerning ways to present our data. We excluded unadjusted and adjusted ORs of MetS itself in Table 3 and stratified the data according to gender as recommended (We describe the association between knee OA and MetS itself in the text, not in Table 3). For adjustment, we adjusted age, height, and sociodemographic factors of exercise, alcohol intake, and smoking together for the association between knee OA and the parameters of MetS (We described the significant ORs of age as a footnote. We hope our new Table would be helpful in allowing readers to understand our data more easily. We changed the manuscript (Abstract, Results, Discussion, and Conclusions) according to the changes made to Table 3. Thank you again for your kind comments.)