Author’s response to reviews

Title: Factors associated with pneumococcal vaccination in elderly people: a cross-sectional study among elderly club members in Miyakonojo City, Japan

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Author’s response to reviews:

September 2, 2018
Dr. Pascal Crépey
Editor,
BMC Public Health

Dear Dr. Crépey,

Thank you very much for your review of our manuscript and your valuable advice. We also greatly appreciate the time and effort you and each of the reviewers have dedicated to providing insightful feedback on ways to strengthen our paper.

Below are our responses to the reviewers’ comments, with a description of the changes made to the manuscript.
Response to Dr. José Tuells:

We greatly appreciate your helpful comments and suggestions. Based on your suggestion, we added the following description and revised the manuscript accordingly.

1. The title should indicate the place where the study has been carried out (Japan), it should be more concise.

   In line with your comment, we have clarified the place where we conducted the study. The new title is “Factors associated with pneumococcal vaccination in elderly people: a cross-sectional study among elderly club members in Miyakonojo City, Japan”. We also revised the mentioning in the manuscript. (page 5, line 14)

2. The questionnaire is well described, it is very interesting and quite infrequent to use a model such as PRECEDE-PROCEED by Green and Kreuter (which deserve to be cited) combined with the HBM (for the case of PRECEDE predisposing factors). "Green LW, Kreuter MW. (1999). Health promotion planning: and educational and ecological approach. 3rd ed. London: Mayfield publishing," for example or another edition.

   In accordance with your astute advice, we have added the following reference as a citation: “Green LW, Kreuter MW. Health program planning: an educational and ecological approach. 4th ed. New York: McGraw-Hill; 2005.” (on page 7, line 5 and Reference No. 21)

3. In this study the conclusion is far from the theoretical framework that has been established, where only part of the steps of the PRE-PROCEED has been applied, a model aimed at planning behavioral or educational activities for action.

   We have incorporated your comment by adding the paragraph and revised the Conclusions section as follows:

   “Our study revealed that the vaccination rate of the pneumococcal vaccine was 53.2%. Although the vaccination rate was increased compared with previous reports, almost half of study participants had not yet received vaccination. Three variables, recommendation for vaccination from medical personnel, receiving influenza vaccination in any of the previous three seasons, and perceived severity of pneumonia, had significant associations with pneumococcal vaccination behavior among the elderly adults in this study."
Elderly clubs in Japan organize various kinds of activities including health education. Therefore, they are a suitable potential provider of a proposed health promotion program to improve the rate of pneumococcal vaccination. Our study revealed the importance of advice from medical personnel. This health promotion program provided by the elderly club, by providing workshops or seminars with medical personnel, is expected to be an effective measure for encouraging vaccination. Furthermore, this may be a good opportunity to remind older people of the seriousness of pneumonia and its consequences, which was another influencing factor for pneumococcal vaccination in our study”.

Response to Dr. Clemence Tarirai:

Thank you very much for reviewing our manuscript and offering valuable advice. We have addressed your comments with point-by-point responses and revised the manuscript accordingly.

1. In the absence of embedded page numbers in the submitted document, on Page 7 (of the PDF document counter): The sentence in Lines 16-19 should be in past tense and not present tense.

   ➢ We rewrote the sentence in the past tense as follows: “Elderly clubs were distributed in 15 districts of the study area, and a monthly meeting was held on a district basis among the members of each elderly club”. (on page 6, lines 5, 6)

2. On page 7, Lines 51-54: The authors should provide an interpretation i.e. indicate the limit (or cut off point) for the Cronbach's Alpha Coefficient test values supplied.

   ➢ As a general rule of Cronbach’s alpha, 0.70 and above is considered good or acceptable. We have revised our manuscript as follows: “Cronbach’s alpha coefficient test was carried out, which resulted in a score higher than 0.70 (0.71 for the knowledge section and 0.76 for the perception section). After that, the questionnaire was finalized”. (on page 6, lines 16-18)

3. On Page 10 under Data Analysis: The authors indicated that there were 'baseline' variables? Please explain where did the baseline data come from in the cross-sectional study and where did the data go in the Results?

   ➢ In this sentence, the word “baseline” does not mean anything in particular. We indicated every variable in univariate analysis as “baseline variables”. This could confuse the readers.
Therefore, we have replaced the term “baseline variables” with “the variable”. (on page 9, line 3)

4. On Page 11, Lines 41-48 under the Results section: What were the limits and/or literature references for "HIGH or LOW knowledge level of pneumonia"; "HIGH or LOW level of pneumococcal vaccination"? There is no pre-defined criteria described in the method on what basis and how the different variables can be scaled as HIGH or LOW e.g. is a score of 50% or more regarded as HIGH for all score-bearing variables?

- The criteria of classification are mentioned in Additional file 1. We stated this in the last sentence of 2) Predisposing factors in the Instrument section of the Methods section as follows: “Details of the classification in this part of the questionnaire is provided in the Additional file 1”. However, this sentence was not clear enough. Accordingly, we changed the sentence to read: “Details on the classification of knowledge, perception, and health motivation are mentioned in Additional file 1”. (on page 8, lines 1-3)

With these changes to our final manuscript, we hereby resubmit our manuscript. We hope the revised manuscript is now suitable for publication in BMC Public Health. Thank you once again for your consideration.

Sincerely,

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