Reviewer's report

Title: Physical Environmental Factors Related to Walking and Cycling in Older Adults: the Belgian Aging Studies

Version: 2 Date: 28 September 2011

Reviewer: Masamitsu Kamada

Reviewer's report:

Major Compulsory Revisions (7):

1. Did authors perform any tests for interactions before dividing total sample into subgroups? In order to justify the necessity of subgroup analyses, tests for interactions should be performed. As authors concluded (Line 325), there might not be any rationale for subgroup analyses. If significant interactions between each environmental variable and subgroup categories (i.e., area of residence, age, gender) are evident, then the sample should be stratified and analyses performed (and odds ratios presented respectively).

Whether the interactions (effect modifications) are significant or not it affects the overall structure of this paper. I recommend the following structure of analyses to strengthen the design of the paper:

(1) PA-sociodemographic relationships (Table 1 & 2);
(2) Frequency distribution of environmental variables (new, see also comment 4);
(3) PA-environment relationships in total sample (new);
(4) Test for interactions between each environmental variable and subgroup categories (new) and
((5) PA-environment relationships in subgroups where the significant interactions are observed (similar to Table 3-5)).

2. Line 124-131: Does this method of measuring PA with questionnaire and older-volunteer collectors have any results of reliability and validity tests? If yes, describe it in the methods section. If no, describe it in the limitation section.

3. Line 171: There is no description about “education” in the measures section. Please describe it.

4. Line 229-231: Information about the frequency distribution of perceived environmental variables is important for readers to judge whether the authors’ interpretation is reasonable or not. Were urban participants more likely to perceive good access to services compared to rural participants?

5. Line 238 & 312-313: Walking facilities and aesthetics were negatively correlated with walking for transportation, and safety was negatively correlated with cycling for transportation and walking/cycling for recreation. Change descriptions.
6. Line 305-306: Different results would be observed if the questionnaire asked “daily” habits of walking or cycling for recreation. Please refer to the potential influence of the different frequencies.

7. Line 313-319: Please move to the Discussion section.

Minor Essential Revisions: no
Discretionary Revisions: no

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.