Reviewer's report

Title: Who are the healthy active seniors? A cluster analysis

Version: 1 Date: 9 June 2014

Reviewer: Dannii Yeung

Reviewer's report:

This paper adopted the cluster analytic approach to reveal the characteristics of older people who are active in the community in relation to those inactive seniors. Results showed that adults in the active ageing cluster were younger and healthier, and exhibited higher life satisfaction and self-esteem and fewer chronic diseases and depressive symptoms than those in the inactive ageing cluster. This study demonstrates the distinctive profiles of older adults who are active and inactive in the community; however, the theoretical basis of the present study is rather weak. Below I list out my major concerns on the paper.

1. In the literature on aging, active ageing is closely linked to other concepts such as positive ageing, successful ageing, or productive ageing. If this study aimed to identify determinants of active ageing, past research on these related concepts should also be reviewed as they can provide useful information for formulating the theoretical framework and hypotheses. Right now, it seems that the profiles of active and inactive older adults were largely data-driven, and the rationales of including a set of psychological variables (e.g., life satisfaction, self-esteem, depressive symptoms) as determinants of active ageing remain largely unknown. It would be helpful if the authors can justify the selection of various measures with reference to past research on aging.

2. This study is part of the randomized controlled trial project for examining the effectiveness of a life story book. Participants were recruited through community and day care centers. Even though the present study used the data collected at baseline (without any intervention), this sample is biased in the sense that the participants are relatively “active” as compared with those seniors who do not seek social services from NGOs or take part in the community activities (i.e., the inactive group). As a result, the findings shown in the present study may not be representative at all.

3. Some measures mentioned in the discriminant analysis were not described in the Methods section, e.g., Life Event, the Modified Barthel Index, the Lubben Social Network Scale, and the IADL. Justification should be given for each measure in the Methods section.

4. On Table 3, only the standardized discriminant coefficients are reported. Please also provide the zero-order correlation between each variable and the discriminant function. Moreover, some errors are found in the report of coefficients for the variables of normal vision, income source, and sleep (e.g., coefficients = .000).
5. What are the theoretical and practice implications of the findings shown in the present study? In addition, the authors concluded that “active ageing is not solely for the senior citizens, but rather for people to realize their potential for health throughout the life course”. How was this conclusion drawn? If it is based on the current findings, please specify the discriminating variable(s) to help understand the interpretation of this conclusion.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests.