Reviewer's report

**Title:** Using Latent Class Analysis to Model Prescription Medications in the Measurement of Falling Among a Community Elderly Population

**Version:** 3  **Date:** 26 March 2013

**Reviewer:** davide D sisti

Reviewer's report:

Falls in the elderly population is a major problem in public health. So it is very interesting to understand what are the predictors that could estimate the fall probability. The work is clear, well written, with interesting results. However, the authors must answer the following questions:

Pag.3: In references, Please add some work on the application of lca in psychology.

Pag.4: It is not necessary to write the formulas of the LCA; it is sufficient to write the description of LCA.

Pag.5: "The results can not be extended to other states, with different lifestyles in different latitudes and different socio-economic status". Please, add some comment about this statement.

Pag.5: "In your sample 32 percent of the subject had fallen in the last 30 days". Please, add some references in order to compare your data with studies conducted in other countries or in other periods.

Pag 6: biomedical variables have been dichotomized. Please, discuss that it is not easy dichotomize a variable which high blood pressure, diabetes and heart disease. In fact these diseases show different characteristics and different degrees of severity among patients.

Pag.9. In correspondence analysis, please add proportion inertia values for each dimension and cumulative values.

Pag.9 I don't sure that six class solution is the best solution. If BIC is considered (the most conservative index), seven class solution is better than six class solution, while if LMR(BLRT) p value is considered, five class could be considered. Please, explains why the choice of six class solution.

Pag .11: Please, add a statistical test that compares the probability of falling related of six LC.

Fig 3: Add the variable name in ordinate axis,

**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.