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: 27 December 2012

Reviewer: Linda Gore Martin

Reviewer’s report:

Predicting Falling using Latent Class Analysis

Interesting model. Just a few questions and some editorial recommendations

• Major Compulsory Revisions

Introduction

1. Last paragraph starting with “we are testing..”
Are they really “outcomes” or is some other word more appropriate (relationships or something?)

Methods

2. Somewhere, explain what happened to the subjects between the 3293 reported in the methods and the 2814 in table 4. Do you need to include a temporal association with falls (you have a statement about falling the last 30 days)?

3. Second paragraph: Did you use NDC numbers for meds or just the names?- 

4. Pharmacological Variables – how were the medications “extracted?”

5. The section on data reduction is probably not “results;” however, the CA discussion in the methods and the results needs to be combined into one section.

6. In Class one – the average number of prescriptions is indicated as “one” while the discussion says 4.71. Please check all of the numbers in the descriptions of the classes and the discussion? If these numbers are correct, then briefly explain why different

Results

7. Do you need to add the formula for averaging the falling scores or do you need to just state something about the “weighted CA average?”

Discussion

8. What are the limitations of the data etc.
9. Is any previous related work published?

10. References – check the instructions for authors for complete format.

11. Figure 1: Rx Type – should this be explained in the footnote as “drug falling measure?”

12. Table 1: For table 1: add the numbers of subjects for each group and the percent fallen in the last 30 days.

- Minor Essential Revisions

Abstract:

13. Results section, last sentence—should the sentence include (within commas): based on correspondence analysis derived drug falling measures?

Introduction

14. Start the paper with the problem of falls with the first sentence being the last sentence of the second paragraph. Then bring in latent class analysis (can you do this under a new subheading?).

15. Figure 3: Needs complete labeling

16. Table 2: Amoxapine needs to be corrected (now superscripted)

- Discretionary Revisions

Abstract

First paragraph

17. Comma after therefore (do this throughout the paper); if in the middle of a sentence, enclose in commas

18. Move “biomedical, pharmacological, and demographic variables” to after “Using”

19. Move “LCA” to after “analysis”

Second paragraph

20. Add a comma after accuracy

Introduction

21. First paragraph – add a comma after “in this paper”

22. Section on page 4 with the formulas—should the textual formulas not be superscripts?

23. Last paragraph—second to the last sentence – has “are” twice (remove one) and remove the “to” before predict

Methods

24. For the biomedical list – either remove the double hyphen or the word “was;”
place a comma before “from both…” in all statements

Results

Latent Class Analysis, first paragraph—
25. Place BIC within the parentheses
26. Remove comma after values and place it after the “and” and before “as indicated”
27. Place a comma after “BLRT)”

Discussion

28. Second paragraph: Place a comma after “in our example” and change the word to “toward”

**Level of interest:** An article of importance in its field

**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.