Reviewer’s report

Title: Convergent validity of the interRAI-HC for societal costs estimates in comparison with the RUD Lite instrument in community dwelling older adults

Version: 0 Date: 12 Apr 2016

Reviewer: Christine McDonough

Reviewer's report:

BHSR-D-15-00696

Thank you for the opportunity to review this manuscript. I have provided comments and suggestions below.

Throughout the manuscript, the authors use the word agreement to describe correlations using Spearman correlation. This word is used to describe agreement estimated from methods such as intra-class correlation and kappa procedures. Recommend using terms such as association, relationship, and correlation.

In this paper there is specific detail about how the RUD-lite was administered in the introduction, methods, and results sections. Similar detail is missing for the Inter-RAI-HC throughout. Specify in the introduction and in the methods whether the estimates are based on patient-self-report or provider/nurse report in completing the Inter-RAI-HC. Specifically, when discussing recall period, specify whether the patient, or other specific person is recalling. If patient-report, specify how the instrument is administered ---by interview or other means. If by interview, specify whether the interviewer was aware of the answers to the comparator instrument and to the aim of the study.

Some services (informal care/monitoring) were assessed over the prior 3 days; PT/OT/psych/HHA/nsg/homemaking/meals-wheels over 7 days; hospital admissions, ER/MD visits over 90 days. Address the reliability and validity of the extrapolation from recall period to the time period used in this study, and for the estimate of hospital overnight stays.

Page 13, line 285: Rationale/reference for choice of 5000 replications in bootstrapping procedures should be provided.

Provide a measurement-based rationale/reference to support description of strong correlation. For example, how does this line up with Ian McDowell's discussion (Measuring Health: Guide to
Rating Scales and Questionnaires, 3rd ed. Oxford U Press, 2006, p35-6.) relative to the reliability of each instrument?

Were there adjustments made in the analysis to address the large number of hypotheses tested and therefore probability of chance findings?

The supplemental files are helpful. In the main manuscript, Tables 3 and Table 4, it would be helpful to provide a summary of the correlations for each item/score of interest, for example the range of correlation coefficients for Home Health and Domestic Care Hours.

Page 19, lines 437-439. Please remind/clarify for the reader the difference between the 2 paper versions for which estimates are provided.

Discuss the interpretation of the findings for number of occupational therapy sessions and emergency room visits.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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