Reviewer’s report

Title: Discomfort and agitation in older adults with dementia

Version: 4 Date: 5 October 2007

Reviewer: Charlie Goldsmith

Reviewer’s report:

General

In the response provided 2007-08-15, the authors make reasonable comments back to the reviewers. In the opinion of this reviewer, the comments are fine except for the reliability and validity of the measures. In particular, the FAST measure, while the authors claim has not been examined for measurement properties, the fact that they only use the scale from 5-7 in the patients that were seen in this study does not add to the validity, reliability or responsiveness of the measures. Indeed, without this full spectrum of patients to use all the levels of the scale, these measurement properties would not be validated. This means that on page 8 of the manuscript the authors cannot claim strong measurement properties for the FAST instrument.

1. Page 6, para 2, line 3: Suggest dropping “Only” and capitalizing “Two”. “Only” implies an unstated expectation.
2. Page 6, para 2, line 17: Similarly here, drop “only”.
3. Page 8, para 1, line 2: All of the numbers should have a 0 before the decimal place and indeed it looks like the authors have not inserted a decimal place for the alpha level. The authors have not considered whether or not the effect size of 0.4 is considered a minimum clinically important difference. They need to comment on this to properly interpret the findings.
4. Page 8, para 2, line 4: Suggest “it” be replaced by “these”.
5. Page 9, para 2, line 6: Suggest “was” be replaced by “were”.
6. Page 9, para 2, last line: Insert a 0 in front of the decimal place for the two reliability measures.
7. Page 10, line 1: Insert a 0 in front of the decimal place for the three measures.
8. Page 10, para 2, line 17: Insert a double quote after “discomfort” and an end bracket before the period.
9. Page 10, para 2, line 19: Drop “only”.
10. Page 10, para 2, two lines from the bottom: Replace “ranging” by “varying”.
11. Page 10, para 2, last line: Insert a 0 in front of the decimal place in four instances.
12. Page 11, line 1: Insert a 0 in front of the decimal place.
13. Page 13, para 1, line 1: Make the capital “N” a lower case “n” as it is a
sample rather than a population, and the software GPower should be referenced.

14. Page 13, para 1, lines 3, 6 and 7: All of these numbers should have a 0 in front of the decimal place.

15. Page 14, para 1, last line: Insert a 0 in front of the decimal place.

16. Page 15, para 2, line 6: Insert “min to max:” between the opening bracket and “0”.

17. Page 16, para 1, line 5: Insert “min to max:” between the opening bracket and “29”.

18. Page 21, Table 1: The third column is labeled with an “M”—what does this mean? Is it meant to be the median, which is its conventional use? However, if the authors meant a mean they should use a lower case “m”.

19. Page 21, Table 1: In the fourth column, having “Min-Max” is violated when it comes to “Disability in performing ADL” because the authors now use “to”. It would be better to either separate them with another delimiter such as a comma or a semi-colon, but it is okay to use two spaces with the word “to”. It should however be made consistent throughout the table.

20. Page 22, Table 2: It is conventional to use a single * for 5% and a double ** for 1% and a triple *** for 0.1%, so the two footnotes should have another asterisk added to them, as well as where they are used.

21. Pages 23 and 24, Table 3: The asterisk problem is the same in this table, and there should be a 0 in front of the probabilities. In general, from the viewpoint of this reviewer, putting step 1 with “Sex”, “Severity” and “Disability” in each time that automatically goes on to the next step means that the values in the first step are not actually needed—all you need is the summary—and then the important values are in step 2. Therefore this table could be shortened by leaving step 1 out from each one.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

See above.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

See above.

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Discretionary Revisions (which the author can choose to ignore)

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**What next?: Accept after minor essential revisions**
**Level of interest:** An article of importance in its field

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

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.