Reviewer's report

Title: Activities of daily living in dementia: Revalidation of the E-ADL Test and suggestions for further development

Version: 1 Date: 23 August 2012

Reviewer: anthony martyr

Reviewer's report:

The authors present a well-written article that investigates simple ADL tasks in a sample of moderate and severe people with dementia. The article is well argued, concise and generally accurate.

There are a number of minor things that need addressing.

1 The excessive criticism of previously designed ADL tests in the introduction and the discussion should be toned down a little. The authors criticize the small samples used to validate the tests and the length of time the tests take to administer (both valid criticisms), but they do not mention the positive aspects of the tests and the authors only briefly mention that the other tests are largely designed for people with dementia with less severe impairments than the E-ADL-Test. For example the validity sample of the DAFS was indeed very small, however the test has been used quite often in research since 1989 and according to a recent meta-analysis (Martyr & Clare, 2012) is the most commonly used performance test of ADL when investigating executive function.

2 It should also be noted that the revised DAFS by McDougall et al was designed for normal older people so it is not necessarily accurate to say that people with dementia with MMSE scores of 20 and below were excluded, this score was merely a cut-off for exclusion there is no information in the paper about how many people were actually excluded from the study using this cut-off; the study itself was not designed to consist of people with dementia.

The other comments I have are extremely minor.

3 For hypothesis 2 it would be useful if the authors included the t value for the (p=.03) significant effect.

4 In the discussion the authors state that the Barthel Index produced little variability in the scores and that the scores could be described as ceiling effects, however the mean was 53 out of 100, which suggests there was some impairment, could the authors clarify this.

5 A similar point is that Table 1 would benefit by including the range of scores as well as the means and SDs.

6 Table 2 would also benefit from including the range of MMSE cut-off scores (i.e. 0-9 severe, 10-17 moderate, 18-23 mild) either in the table or as a note; the
paper may benefit from repeating this cut-off one more time as mild dementia to me is MMSE 24-30, whereas for the paper the scores are 18-23.

7 I would also suggest that figure 2 could be included as supplementary information rather than included in the paper, it doesn’t really add much to the paper and the kurtosis is to be expected from the mean score of 25.1 out of 30 and a quarter of the scores were 30.

8 The abbreviations in Figure 3 could be a bit clearer in the figure itself, the ordering of the variables seems a bit chaotic, would it make more sense to group the ADAS-Cog and the NOSGER subscales together?

Other comments

I feel it should be noted that the current test E-ADL-Test is a well-designed test for people with moderate and severe dementia and the inclusion of the supplementary material is appreciated. Additionally, I do agree with the conclusion that a more varied test should be developed for people with less impairment that avoids ceiling effects. To show impairments in people with mild dementia there will probably have to be quite a large cognitive component in the tests otherwise the tests will be too easy, which will probably conflict somewhat with the authors criticism of the tests they review in the introduction.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Acceptable

**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