

## Reviewer's report

**Title:** Validation of the Cognitive Assessment of Later Life Status (CALLS) Instrument: A Computerized Telephonic Screen

**Version:** 1 **Date:** 18 October 2006

**Reviewer:** Felicia Huppert

### Reviewer's report:

#### General

There are several impressive aspects of this paper; the first is the nice acronym CALLS, the second is the fact that the instrument was "scrupulously pre-tested", and the third is that being computerized, the CALLS can measure reaction time to each item as well as accuracy. However, there are also many problems with the paper, not least among these being the purpose for which the test was designed and whether it adds anything to the tests which are already available and widely used. In several places, including the title, the authors suggest that this is intended as a screening test, but are not explicit about what it is screening for, and certainly fail to provide any evidence that it is a useful screen. If it is intended as a screen for dementia, then clearly it needs to be administered to a group who have a dementia diagnosis, albeit of mild severity. Likewise, if it is intended as a screen for MCI, there needs to be an independent diagnosis of MCI to see how well the test works in detecting those with MCI, without producing a large number of either false negative or false positive categorizations. It is also unclear why the authors think that their new test is an improvement on the TICS-M, which has been widely used and well-validated all around the world as a valuable screening tool for dementia. The only critique of the TICS-M which is offered, is that it does not measure many of the cognitive domains used in a full neuropsychological battery. But why does this matter? Surely the gold standard is whether the test is sensitive to normal age-related cognitive decline, MCI or dementia, rather than that it encompasses all the domains used in a full neuropsychological battery, which after all is intended to detect a much wider variety of problems than age-related cognitive impairment. Additional problems include the parochial nature of the paper – they speak about the need for an improved understanding of age-related cognitive deficits in the United States – and the complete disregard for a very large and impressive literature on other tests which cover a broad range of cognitive domains (e.g. CAMCOG-R) or the fact that within the US, the Health and Retirement Study (HRS) has undertaken cognitive interviews by telephone with many thousands of older adults.

With respect to the Methods section, there are some additional shortcomings. Aside from the serious problem of providing no rationale for the selection of tests, insufficient detail of the tests themselves is provided. For example, little is said about the test of verbal recall, and there is no indication of the manner in which reaction time is measured. The sample size is also very small; with only 211 participants, the number in each of the key socio-demographic groups, is tiny, and certainly inadequate to represent four ethnic groups, two genders, age groups and education. Nor, by current epidemiological standards, can one regard a 30 minute interview as being "brief". Many briefer measures exist, both in person and telephone interviews, which have been shown to be valid and reliable in relation to age-related impairment, MCI and dementia. I am not persuaded that the authors make a sufficient case for the need for this new instrument.

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

1. A more thorough literature review
2. A clearer statement of the purpose of the instrument and the rationale for item selection.

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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)

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Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.