

Connections

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Translations of Folstein's Mini-Mental State Examination

In the October issue of *Connections* Joan Melville-Howe mentioned the translations of the MMSE arranged by their Psychogeriatric Community team, so that more culturally sensitive assessments could be made with the assistance of an interpreter. The languages being translated include Italian, Spanish, Cambodian (Khmer), Turkish, Chinese (Mandarin) and Vietnamese. A Greek translation is apparently also on the way.

Despite being a very interesting exercise that must be applauded because of the enthusiasm conveyed, the method described raises certain questions that do not appear to have been addressed and which might make these tests non valid and dangerous to use.

When performing a cognitive assessment transculturally, several kinds of potential bias should be considered.

1. The first is the test bias, arising from inappropriate item selection: such as items that poorly translate from one language to another (e.g. repetition of certain phrases); or those that represent objects or entities unfamiliar to different cultures (e.g. unfamiliarity with paper and pen tests, different ways of referring to and conceptualising geographical location, familiarity with reading words rather than spelling); or those items that when translated do not measure the same cognitive domain of the original item (e.g. repetition of 'no ifs, ands or buts').

2. Secondly, the effect of bilingualism on test performance is largely unknown but relevant, since most of our elders are

bilingual and the acquisition of certain cognitive skills (e.g. calculation) may be acquired in one language and not utilised in the language tested. Also cross-aphasia studies suggest a right hemisphere representation of the second language, with the possibility of differential aphasia in the two languages. Whether the respondent should be given the choice of which language to respond in, or whether some independent criterion of proficiency should establish the language choice, is not known. Also unknown is whether code-switching (shift to a different language according to social context) should be encouraged, discouraged or prohibited (i.e. not be counted, insisting on a response in the initially assumed or designated language).

3. The third concern is the patterns of experience which different cultures bring to the test situation. Education is an obvious example as educational attainment can influence the scores of these tests and there is much variation in emphasis on certain skills in early or more advanced grade levels in different parts of the world. Also, the level of reported

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primary, secondary, and vocational/technical education, expressed as years of education in tables to correct the MMSE scores, is probably not comparable across different educational systems in different countries.

4. Subtle cultural values can also influence test performance such as the readiness with which intellectual skills are displayed to strangers, and familiarity with the conventions of information elicitation outside the context of practical activities.

5. The use of interpreters in the test situation is another factor to consider as most interpreters are not trained in cognitive assessments, often interpret the questions in a different way, can hint, prompt or give feedback to the patient without the clinician's awareness. The standardisation of these tests with instructions for its use with interpreters, with questions written in their own language that the interpreters can read to the patient is an acceptable way of performing a brief cognitive assessment which seems to be valid. We have validated the Italian MMSE through mental health interpreters in Melbourne in 1994 and, despite objections from some interpreters, it was welcome by most and easy to use.

In any translation of cognitive

tests, such as the MMSE, all the bias must be addressed so that the clinician is certain of what he is measuring. Preferentially these translations should be done by bilingual neuropsychologists who are familiar with what cognitive domain the test is meant to measure. The methodology used of back translation can avoid gross mistakes in wording and meaning but does not address the issue of whether the new words or phrases actually measure what the original item was meant to measure. Most authors have addressed this issue by using a consensus approach to translation with a panel of bilingual neuropsychologists — back translation being used to catch any discrepancies.

When the translations have been done they should be pre-tested in the population and then revised so that the issue of acceptability, familiarity with certain tasks and the correct wording of the questions can once again be checked. Once a final version is produced its validity should be studied, with the test administered through interpreters to the population to be used as a screening cognitive test. Cutoff scores that will give the best balance between false positives and negatives can be calculated.

The above procedure has been followed in the Greek translation that our unit produced in 1994, however we stopped short of validating the instrument due to lack of subjects. Instead of reinventing the wheel and doing all these translations, a better approach would be to actually get the translations which have been done and validated overseas and adapt them for use in Australia. MMSE is available in Chinese (Cantonese), Korean, Thai, Spanish, Italian, French, Finnish, Norwegian, Dutch and Nigerian. Validation of these scales will still need to be done in Australia. If overseas translations are not available much work has to be put into the translations and the above methods should be followed so that clinicians can feel confident in using these instruments.

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