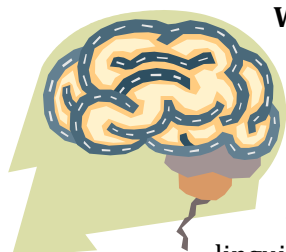# Tip Sheet 3 - Cognitive assessment and people from Culturally and Linguistically Diverse (CALD) background

Cognitive assessments help determine the cognitive ability of an individual. A cognitive assessment should include assessment of function using standardised and validated assessment tools and information gathered from family or informant.

There are a range of cognitive assessment tools that have been developed. The RUDAS is a cognitive assessment tool which has been validated for use with people from CALD backgrounds and is the tool recommended by the 2010 Expert Clinical Reference Group (ECRG) (Sansoni et al., 2010) for use by ACAS staff.

RUDAS

What is the RUDAS: The Rowland Universal Dementia Assessment Scale (RUDAS) is a scale that assesses cognitive impairment in people from all educational, cultural and linguistic backgrounds. The RUDAS was developed in 2004 by Storey, Rowland, Basic, Conforti, and Dickson. Each item was reviewed by a cultural advisory group for cultural relevance and ease of translation. It has also been validated in multicultural populations in Australia.

Benefits of the RUDAS: The RUDAS seems likely to have less cultural and educational bias and appears suitable for assessing clients from CALD backgrounds. It takes approximately 10 minutes to administer.

Training: The RUDAS requires administrator's to be trained in its use. An easy to access DVD (and guidelines) is available on the Alzheimer's Australia website:

http://www.alzheimers.org.au/understanding-dementia/rowland-universal-dementia-assessment-scale.aspx

The RUDAS consists of a series of questions aimed at assessing memory, visuospatial orientation, praxis, visuoconstructional drawing, memory recall and language.

Cut off score: 22 or less (lower scores indicate greater impairment); 23-30 considered normal, and needs to be considered in the clinical context.

SMMSE

The Standardised Mini Mental State Examination (SMMSE) was the tool recommended for use with non-CALD clients by the 2010 Expert Clinical Reference Group (Sansoni et al., 2010). However, ACAS staff may wish to use the SMMSE to supplement the RUDAS with some CALD clients. Care should be taken when interpreting the SMMSE scores when used with people from CALD backgrounds.

What is the SMMSE: The SMMSE is an adaptation of the Mini Mental State Examination (MMSE). The MMSE is a cognitive screening tool that has commonly been reported to have cultural and educational biases (Basic et al, 2009; Rowland et al, 2006). The SMMSE was developed by Molloy and Standish in 2007

to provide a systematic approach to the administration of the MMSE.

Benefits of the SMMSE: The SMMSE has detailed instructions with time limits on questions and takes approximately 10 minutes to administer.

Cut off score: Lower scores indicate greater impairment (range: 0-30)

Scoring guidelines for assessing cognitive impairment (Vertesi, Lever, & Molley, 2001):

30 = No impairment;

26 – 30 = Considered normal;

20 – 25 = Mild;

10 – 19 = Moderate;

0 – 9 = Severe.

Things to be aware of

RUDAS:

Although the RUDAS has consistently been found to be free of cultural and educational bias in multicultural samples in Australia, one study in South India did find education impacted on the RUDAS score.

Sansoni et al (2007) suggest that question 5 (judgement -traffic lights and busy street) may reflect a degree of acculturation to dominant Western and urban based cultures.

SMMSE

Questions most commonly modified in overseas studies to make the MMSE more culturally and linguistically relevant or relevant to those less educated include:

Culture:
- Repeating "no ifs, ands or buts" (replaced with a more common phrase/tongue twister).
- Orientation to time and place (replaced with regional names of places or terminology and accepting traditional calendar systems responses; and season removed or replaced with time of day).
- Accepting regional language differences in responses.

Education:
- Spelling world backward (replaced with days of the week backwards).
- Counting backward by 7s (replaced with a subtraction task).
- Writing a sentence (replaced with tell me something about…).

Translated Tools

RUDAS

The RUDAS seems likely to have less cultural and educational bias so it is easily interpreted by an interpreter during an assessment. Some translated (written) versions are available but are not validated.

SMMSE

There are no formal translations known of the SMMSE, however the MMSE has similar questions to the SMMSE. The MMSE and its translations are copyrighted by Psychological Assessment Resources (PAR) and can be purchased online www.parinc.com/.

Some studies which have translated the MMSE and provided psychometric properties are listed in the references below.

Further Resources and References

Cognitive Assessment

Victorian Transcultural Psychiatry Unit: www.vtpu.org.au/

References

- Sansoni, J., Marosszeky, N., Jeon, Y.-H., Chenoweth, L., Hawthorne, G., King M, Budge M, Zapart S, Sansoni E, Senior K, Kenny, P., Low, L. (2007). *Final Report: Dementia Outcomes Measurement Suite Project*. Centre for Health Service Development, University of Wollongong.

- Sansoni, J., Marosszeky, N., Fleming, G., & Sansori, E. (2010). *Selecting Tools for ACAT Assessment: A Report for the Aged Care Assessment Program (ACAP) Expert Clinical Reference Group. Centre for Health Service Development, University of Wollongong. Report for the Aged Care Assessment Program.* Department of Health and Ageing, Canberra.

RUDAS

This Alzheimer's Australia website contains a DVD, administration and scoring guidelines, scoring sheets and translations in Chinese and Italian: http://www.alzheimers.org.au/understanding-dementia/rowland-universal-dementia-assessment-scale.aspx

The RUDAS can also be found on the Dementia Collaborative Research Centre website: http://www.dementia-assessment.com.au/measures.html

RUDAS References

- **RUDAS Reference:** Storey, J., Rowland, J., Basic, D., Conforti, D., & Dickson, H. (2004). The Rowland Universal Dementia Assessment Scale (RUDAS): A multicultural cognitive assessment scale. *International Psychogeriatrics, 16*(1), 13-31.

- Rowland, J.T., Basic, D., Storey, J.E., Conforti, D.A. (2006). The Rowland Universal Dementia Assessment Scale (RUDAS) and the Folstein MMSE in a multicultural cohort of elderly persons. *International Psychogeriatrics, 18,*111-120.

SMMSE

International Psychogeriatric Association:

This website contains administration guidelines and a copy of the SMMSE http://www.ipa-online.org/ipaonlinev3/ipaprograms/guidetoaddiagnosis/appendix3.asp

Psychological Assessment Resources (PAR):

Permission to use/reproduce the SMMSE and obtain a copy of the guidelines can be obtained by contacting Dr. D William Molloy (Published by New Grange Press)

www.parinc.com/

SMMSE/MMSE References

- **SMMSE Reference:** Molloy, D.W., & Standish, T.I.M. (1997). A guide to the Standardized Mini-Mental State Examination. *International Psychogeriatrics, 9*(Supplement 1), 87-94.

- Basic, D., Khoo, A., Conforti, D.A., Rowland, J.T., Vrantsidis, F., LoGiudice, D., Hill, K., Harry, J., Lucero, K., Prowse, R.J. (2009) Rowland Universal Dementia Assessment Scale, Mini- Mental State Examination and General Practitioner Assessment of Cognition in a multicultural cohort of community-dwelling older persons with early dementia. *Australian Psychologist, 44*, 40-53.

- **Chinese MMSE:** Chiu, H. F. K., Lee, H. C., Chung, W. S., & Kwong, P. K. (1994). Reliability and validity of the Cantonese version of Mini-Mental State Examination – A preliminary Study. *The Hong Kong Journal of Psychiatry, 4*(2), 25-28. (Tool attached as an appendix in the article, but copyrighted by PAR - education based cut off scores recommended by the authors).

- **Chinese MMSE:** Katzman, R., M. Y. Zhang, et al. (1988). "A Chinese version of the Mini-Mental State Examination; impact of illiteracy in a Shanghai dementia survey." Journal of Clinical Epidemiology 41(10): 971-978.

- **Greek MMSE:** Tsolaki, M., V. Iakovidou, et al. (2000b). "Hindi Mental State Examination (HMSE) as a screening test for illiterate demented patients." *Int. Journal of Geriatric Psychiatry 15:* 662-665.

- **Greek MMSE:** Tsolaki, M., V. Iakovidou, et al. (2000c). "Hindi Mental State Examination (HMSE) as a screening test for illiterate demented patients." *ΕΓΚΕΦΑΛΟΣ 37*: 119-138. Tool available in article (in Greek).

- **Italian MMSE**: Frisoni, G.B., Rozzini, R., Bianchetti, A., & Trabucchi, M. (1993). Principal lifetime occupation and MMSE score in elderly persons. *Journal of Gerontology, 48*(6):S310-4. Note: validity data not available.

- Vertesi, A., Lever, J. A., Molloy, D., W.Sanderson, B., Tuttle, I., Pokoradi, L., & Principi, E. (2001). Standardized Mini-Mental State Examination. Use and interpretation. *Canadian Family Physician, 47*, 2018-2023.

- **Arabic MMSE:** Wrobel, N.H. & Farrag, M.F. (2004). Identification of dementia and mental health symptoms in an elderly Arab American sample: Final report. Wayne County Senior Citizens Services, Detroit. (Various tools, including the MMSE are included in Arabic as an appendix - education based cut off scores)

- **Arabic MMSE:** Wrobel, N.H., & Farrag, M.F. (2008). Preliminary validation of an Arabic version of the MMSE in the elderly. Clinical Gerontologist, 31(3), 75-93.