Objective: In South Africa, most of the cognitive tests employed for neuropsychological evaluation are those developed in educationally advantaged settings such as the US, but the normative data accompanying the tests are unsuitable for use with South African examinees who have a disadvantaged quality of education, and/or whose primary language is other than English. A recently completed collation of Africa-based normative data (Shuttleworth-Edwards & Truter, 2022) includes a chapter on Performance Validity Tests (PVTs) with proposed cut-off points to assist in the identification of noncredible performance. The aim of this study was to compare the cut-off points established using educationally disadvantaged South African nonclinical normative samples for which only specificity percentages are available, with those established using clinical samples with designated valid and invalid performers for which both specificity and sensitivity data are available. A further aim was to compare the Africa-based cut-off points with age-equivalent cut-off points where available for US-based data on the targeted tests.
Participants and Methods: The collation of Africa-based studies delineates cut-off scores for invalid test performance based on both nonclinical as well as clinical populations for three stand-alone PVTs especially developed to identify invalid performance including the Dot Counting Test (DCT), the Rey Fifteen Item Test (FIT), and the Test of Memory Malingering (TOMM); and three commonly employed cognitive tests for which there are embedded validity indicators including the Digit Span Age-Corrected Scaled Score (ACSS) and Reliable Digit Span (RDS), the Rey Auditory Verbal Learning Test (RAVLT), and the Trail Making Test A and B (TMT A and B). For studies using nonclinical norming data alone, specificity percentages to derive the cut-off points were set at a minimum of 90%. For studies using clinical samples specificity was set at a minimum of 90%, and the associated sensitivity percentages were reported indicating each test's ability to correctly identify those with an invalid performance. The studies included participants stratified for both child and adult age groups (age 8 to 79 years) from South African educationally disadvantaged backgrounds. The data were tabled together for descriptive comparison purposes, including a column for the US-base cut-off points for equivalent age stages where available.
Results: There was a high level of compatibility between the proposed cut-off points established for the South African nonclinical normative samples compared with those using clinical samples of designated valid and invalid performers. There was a trend for more lenient cut-offs for younger children and older adults compared to older children and younger adults. Compared with US-based data where available, adjustments towards leniency were called-for on all indicators.
Conclusions: Cut-off scores for invalid cognitive test performance can be verified by perusing data derived from nonclinical norming samples as well as those from clinical samples, although the latter have the advantage of providing the sensitivity data to demonstrate the efficacy of a proposed cut-off score for identifying noncredible test performance. Adjustments towards leniency need to be made for cut-off scores for young children and older adults within an educationally disadvantaged population, and for disadvantaged adult populations compared with US-based educationally advantaged populations.

Categories: Cross Cultural Neuropsychology/ Clinical Cultural Neuroscience
Keyword 1: assessment
Keyword 2: performance validity
Keyword 3: normative data
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33 Title: Examining memory performances in a sample of cognitively healthy illiterate older adult population in India

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Objective: Objective: Despite the rise in literacy, 773 million of the global population is estimated to be illiterate. The rate of illiteracy is even higher among women and older adults (OA). Literacy has been well documented to impact cognitive skills, and most neuropsychological tests developed are for individuals with higher education. Moreover, there is sparse research on cognitive process and performance of illiterate individuals across cognitive domains.

Per a 2011 census, the illiteracy rate in the Indian older adult population was as high as 56%, and within this group, women and older adults in rural regions were especially vulnerable. Thus, it is important to understand cognitive performance of illiterate Indian older adult population, especially when they are being assessed for neurodegenerative disorders.
Participants and Methods: Participants and Methods: This study used subset of data from Harmonized Longitudinal Aging Study of India, Diagnostic Assessment of Dementia (LASI DAD), which was developed by the Gateway to Global Aging Data. A sample of cognitive healthy OA (n = 715) was selected based on Hindi Mental Status Exam score of >19 and a Clinical Dementia Rating Scale of 0 (literate = 419, illiterate = 296) . Given the heterogeneity of the population, adapted cognitive instruments were used. This study compared memory performances, using word list and constructional praxis with delayed recall tasks, of OA based on their literacy status (illiterate vs. literate).
Results: Results: Literate cognitive healthy OA (M = 15.27, SD = 3.9) learned more words over three trials than illiterate OA (M = 12.17, SD = 3.7) on a world list task, a statistically significant difference (M = 3.1, 95% CI [2.5, 3.6], t (713) = 10.62, p<0.05. Literate OA (M = 8.7, SD = 2.2) had higher scores on task of copy of simple geometrical figures than illiterate OA (M = 5.3, SD = 2.8), a statistically significant difference (M = 3.3, 95% CI [2.9, 3.7], t (713) = 7.1, p<0.05. Literate OA (M = 4.5, SD = 1.8) also recalled more words than illiterate OA (M = 3.6, SD = 2.1) after a delay. Recall of geometric figures after a delay was higher for literate OA (M = 5, SD = 2.9) as well compared to illiterate OA (M = 2.4, SD = 2.5).
Conclusions: Conclusion: In a sample of cognitively healthy Indian older adults, literate OA consistently performed better than illiterate OA on both verbal and nonverbal memory measures. This is consistent with past literature which shows that illiterate individuals take longer to learn verbal information and have lower recall. Additionally, use of geometric figure may be complicated for these individuals. These are important considerations when assessing an OA for memory problems with low or no education. Next steps would be to look at differences across other cognitive domains and also examining if cognitive differences exist in illiterate OA based on gender.

Categories: Cross Cultural Neuropsychology/ Clinical Cultural Neuroscience
Keyword 1: cross-cultural issues
Keyword 2: memory: normal
Keyword 3: aging (normal)
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34 The Influence of Bilingualism in Young Adults

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Objective: The research examining the influence of bilingualism on cognition continues to grow. Past research shows that monolingual speakers outperformed bilingual speakers on language, memory, and attention and processing speed tasks. However, the opposite has been found favoring bilingual speakers, when comparing executive functioning abilities. Furthermore, researchers have reported that no differences in executive functioning abilities exist between young adult monolingual speakers compared to young adult bilingual speakers. Moreover, limited research exists examining cognition abilities between monolinguals, bilinguals that learn a language (e.g., English) first, and bilinguals that learn the same language (e.g., English) second. We examined young adult monolinguals cognition abilities (e.g., memory) compared to young adult bilinguals that learned English as a first or second language. It was expected that the monolingual group would outperform both bilingual groups on memory, language, and attention and processing tasks, but no differences would be found on executive functioning tasks.
Participants and Methods: The sample consisted of 149 right-handed undergraduate students with a mean age of 19.58 (SD = 1.90). Participants were neurologically and psychologically healthy and divided into three language groups: English first language (EFL) monolingual speakers, EFL bilingual speakers,

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