P2-296 AN EFFECTIVE NEUROPSYCHOLOGICAL SCREENING METHOD FOR DETERMINING DEMENTIA SEVERITY AND TYPE: COMBINING USE OF THE MMSE AND FREE AND CUED SELECTIVE REMINDING TEST

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Background: Thorough assessment of cognitive function within a neurological examination can be time consuming and challenging. We propose two simple measures that combined provide information regarding cognitive impairment severity (i.e., mild cognitive impairment (MCI) vs. dementia) and type of cognitive impairment (amnestic vs. non-amnestic). **Methods:** 140 patients were neuropsychologically evaluated at the MGH Psychology Assessment Center. Patients' diagnoses were determined based on history, neurological exam, imaging findings (when available),and performance on a comprehensive neuropsychological battery. Patients were divided into four groups: MCI amnestic (aMCI) (n = 42), non-amnestic MCI (n = 53), Major Neurocognitive Disorder (NCD): AD/probable AD (n = 19) and Major NCD due to other pathology (n = 26). Their performances on the Free and Cued Selective Reminding Test (FCSRT) and the MMSE were analyzed. **Results:** Our findings indicate that severity of cognitive impairment is predicted by total MMSE score (Beta = -.41, p < .001) but not cued recall on the FCSRT (Beta = .09, p > .3) (F (2, 121) = 9.76, p < .001). In contrast, type of cognitive impairment is predicted by cued recall on the FCSRT (Beta = .56, p < .001) but not the MMSE (Beta = -.03, p > .7) (F (2, 121) = 25.7, p < .001). That is, total MMSE score distinguishes MCI from dementia while cued recall accuracy on the FCSRT distinguishes amnestic from non-amnestic disorders. **Conclusions:** Our findings suggest that these two measures in combination provide an efficient means of classifying patients in terms of severity and type of cognitive impairment (i.e, amnestic type consistent with AD vs. non-amnestic). Administration of these measures takes relatively little time and interpretation of results is relatively straightforward. We propose that this can be a very helpful screen that can guide physicians as to what types of further work-up may be most helpful. Given the significant rise of the aging population and the concomitant rise in dementia and its associated costs to the healthcare system, access to sensitive and specific diagnostic measures is necessary and will become especially important given the likely efficacy of early treatment.

P2-297 ANALYSIS OF NEUROPSYCHOLOGICAL TESTS AND FUNCTIONS TO DIAGNOSE MILD COGNITIVE IMPAIRMENT IN MÉXICO

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Background: Mild cognitive impairment (MCI) can be defined as a loss of subjective or objective psychological processes, in general, of memory, in an independent individual. MCI is a syndrome that possesses four subtypes: amnestic of a domain, amnestic of multiple domains, non-amnestic of a domain and no-amnestic of multiple domains and MCI's measurement is not uniform. The objective of this work is to review how MCI has been detected in México by three national epidemiological initiatives and a state study, so the neuropsychological tests that have been applied and the measured psychological processes were analyzed. **Methods:** Literature concerning the three national projects and the state study were reviewed. The 37 psychological functions measured by the tests were grouped according to the classification of neuropsychological functions of a test elaborated in Mexico, the Neuropsi. **Results:** The tests employed in the projects were the Cross-Cultural Cognitive Examination, Minicog, Community Screening Instrument for Dementia, Modified Consortium to Establish a Registry for Alzheimer's Disease and the Mini-Mental State Examination. Verbal memory tests were more frequently used, with 35.1% (coding and evocation); language, 27% (denomination, repetition, comprehension and verbal semantic fluidity); visuospatial memory (codification, evocation or drawing) with 16.2%; space, time and person orientation in 8.1%; attention and concentration, 8.1% (visual detection and subtraction); and in a 5.4% reading and writing. **Conclusions:** MCI is measured especially by errors in verbal learning and differed memory. Thus, the search for the detection of amnestic MCI on a single domain has prevailed in México. A reflection is made about the necessity of following a national neuro-imaging study similar to the Alzheimer Disease Neuroimaging Initiative implemented in the US and Canada considering the high index of illiterates–in México, one quarter of the people equal to or older than 60 years old is illiterate–and the use of tests that include norms for illiterates as Neuropsi could bring light to classify in detail subtypes of MCI and illiterates and give a more accurate diagnosis and prognosis.

P2-298 APPLYING MIXTURE MODELS TO IDENTIFY MID-LIFE LONGITUDINAL COGNITIVE TRAJECTORY CLUSTERS IN THE WISCONSIN REGISTRY FOR ALZHEIMER'S PREVENTION

Rebecca L. Koscik[1], Bruce P. Hermann[1,2], Lindsay R. Clark[3], Kimberly D. Mueller[1,4], Mark A. Sager[1], Sterling C. Johnson[1,3,5,6], *[1]Wisconsin Alzheimer's Institute, University of Wisconsin School of Medicine and Public Health, Madison, WI, USA; [2]Department of Neurology, School of Medicine and Public Health, Univeristy of Wisconsin-Madison, Madison, WI, USA; [3]Wisconsin Alzheimer's Disease Research Center, University of Wisconsin School of Medicine and Public Health, Madison, WI, USA; [4]Department of Communication Sciences and Disorders, University of Wisconsin-Madison, Madison, WI, USA; [5]Geriatric Research Education and Clinical Center, Wm. S. Middleton Veterans Hospital, Madison, WI, USA; [6]Waisman Laboratory for Brain Imaging and Behavior, University of Wisconsin-Madison, Madison, WI, USA.* Contact e-mail: *rekoscik@wisc.edu*

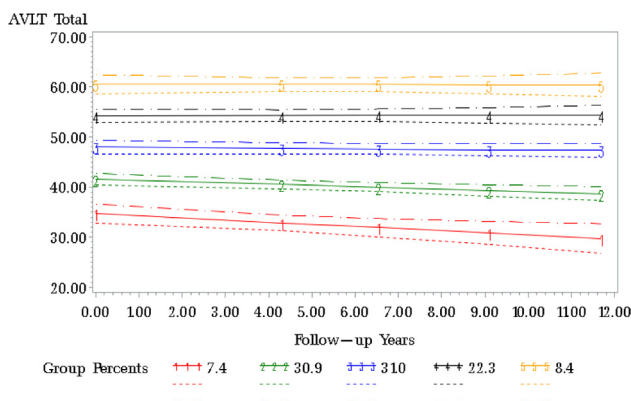**Background:** Longitudinal studies of cognition frequently use modeling strategies that require the same shape of change across

Figure 1. AVLT Total Trajectories for Men