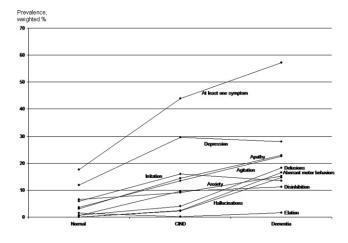
## P3-101 PREVALENCE OF NEUROPSYCHIATRIC SYMPTOMS AMONG OLDER ADULTS IN THE UNITED STATES: THE AGING, DEMOGRAPHICS, AND MEMORY STUDY

**Toru Okura**<sup>1,2</sup>, Brenda L. Plassman<sup>3</sup>, David C. Steffens<sup>3</sup>, Kenneth M. Langa<sup>1,4</sup>, <sup>1</sup>University of Michigan, Ann Arbor, MI, USA;

<sup>2</sup>*GRECC*, *Department of Veterans Affairs*, *Ann Arbor*, *MI*, USA; <sup>3</sup>*Duke* University Medical Center, Durham, NC, USA; <sup>4</sup>HSR&D Center of Excellence, Department of Veterans Affairs, Ann Arbor, MI, USA. Contact e-mail: toruo@med.umich.edu

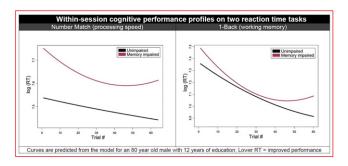
Background: Neuropsychiatric symptoms are common in older adults with cognitive impairment and may be associated with increased caregiver burden, early institutionalization, and mortality. Our goal was to estimate the prevalence of neuropsychiatric symptoms by cognitive status using a nationally representative sample of older adults in the United States. Methods: We used data from the Aging, Demographics, and Memory Study (ADAMS, N=856, mean age=81.5, representing 24.4 million Americans aged 71 or older), a sub-study of the Health and Retirement Study (HRS) focused on cognitive impairment and dementia. From the ADAMS, we obtained the presence of neuropsychiatric symptoms (delusions, hallucinations, agitation, depression, apathy, elation, anxiety, disinhibition, irritation, and aberrant motor behaviors) as reported by an informant using the Neuropsychiatric Inventory. Cognitive function was categorized into 3 groups (normal cognition, cognitive impairment without dementia (CIND), and dementia) by the ADAMS consensus expert panel. ADAMS sampling weights were used to estimate the national prevalence of symptoms. Results: 30% of U.S. adults aged 71 or older had at least one neuropsychiatric symptom (18% of those with normal cognition, 44% of those with CIND, and 57% of those with dementia, P-value <0.001). The prevalence of most symptoms was higher in those with CIND or dementia compared to those with normal cognition (P value <0.01 for all symptoms except elation and anxiety). Depression (12% in normal cognition, 28% in dementia) was the most common symptom in all cognitive categories. The prevalence of delusions (18%), hallucinations (15%) and aberrant motor behaviors (17%) in those with dementia was remarkably high compared to the low prevalence in those with CIND (4%, 2%, and 2%, respectively) or normal cognition (1%, 0% and 0%, respectively). The prevalence of hallucinations and aberrant motor behavior was significantly higher in women than men despite similar prevalence of CIND and dementia. Conclusions: Neuropsychiatric symptoms are common among older adults in the U.S. and are associated with poorer cognitive function. Psychotic symptoms and aberrant motor behaviors may be more characteristic for dementia compared to the other symptoms.



P3-102 IMPROVED CHARACTERIZATION OF COGNITIVE PERFORMANCE PROFILES WITHIN MEASUREMENT SESSIONS

Joshua R. Steinerman<sup>1</sup>, Cuiling Wang<sup>1</sup>, Charles B. Hall<sup>1</sup>, Wendy Ramratan<sup>1</sup>, Martin J. Sliwinski<sup>2</sup>, Herman Buschke<sup>1</sup>, Richard B. Lipton<sup>1</sup>, <sup>1</sup>Albert Einstein College of Medicine, Bronx, NY, USA; <sup>2</sup>Syracuse University, Syracuse, NY, USA. Contact e-mail: jsteiner@aecom. yu.edu

Background: Assessing within-session trajectories of reaction time (RT) performance may reveal important information about learning, fatigue and optimal performance obscured by summary measures. Once characterized, performance profiles may help to identify individuals likely to develop cognitive degeneration and Alzheimer's disease. Additionally, they may prove to be reliable outcome measures in therapeutic trials. Methods: Community-residing subjects participating in a longitudinal cohort study of cognitive aging were administered RT tasks gauging processing speed (Number Match; n=65) and working memory (1-Back; n=56). We report here on the first 64-trial session of a measurement burst of 3 sessions given within 1 week. A linear mixed effects model, adjusted for age, gender, and education, was applied to within-session RT performance, allowing a quadratic trend over the 64 trials. Subjects were divided into those with impaired memory (n=20; age=81.6 [SD=5.1]) and those without memory impairment (n=45; age=80.3 [SD=7.0]) based on an empirical cut-score on the Free and Cued Selective Reminding Test (Free Recall <24), a procedure known to predict incident AD in this population. Results: Elder adults with and without memory impairment show improvement in RT across trials on the Number Match and 1-Back tasks (Figure 1). Those with memory impairment initially perform more slowly (higher RT intercepts) on both tasks; following a phase of rapid learning, performance ceases to improve. This is reflected by significant differences in the quadratic trend between the two groups for both the Number Match (p=0.034) and 1-Back (p=0.026). The memory-impaired group achieves its best performance at trial 47 and 46 for Number Match and 1-Back, respectively, while the unimpaired group continues to improve through all 64 trials. Conclusions: Modeling within-session RT trajectories reveals differences in performance not captured by median RT. These differences reflect the balance of learning, fatigue and optimal performance within a session. Future studies will examine cognitive performance profiles across multiple sessions as behavioral markers of cognitive aging and AD.



## P3-103 THE USEFULNESS OF THE IQCODE IN A MEMORY CLINIC SETTING

Sietske A. M. Sikkes, Mark T. Van Den Berg, Dirk L. Knol, Elly S. M. De Lange-De Klerk, Philip Scheltens, Bernard M. J. Uitdehaag, Martin Klein, Yolande A. L. Pijnenburg, VU University Medical Center, Amsterdam, Netherlands. Contact e-mail: s.sikkes@vumc.nl

**Background:** Informant questionnaires can be useful in diagnosing early dementia. The most common used informant questionnaire is the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE). Research into the usefulness of the IQCODE in a memory clinic setting is limited. The objective of the current study is to evaluate the ability of the short Dutch version of the IQCODE (S-IQCODE-N) to discriminate between Alzheimer's Disease (AD), Mild Cognitive Impairment (MCI) and subjective memory complaints. Second, we aimed to evaluate the dimensions measured by the S-IQCODE-N in these different patient groups. A two factor structure, consisting of items related to memory versus items relating to instrumental activities of daily living (IADL) was investigated. **Methods:** Informants of