

Spanish speaking population. We hypothesized that participants with NSD would demonstrate better executive functioning abilities compared to participants with ASD.

**Participants and Methods:** The sample in the present study consisted of 87 neurologically and psychologically healthy Mexican participants all residing in Mexico. Mean age was 24.71 (SD = 9.66) and 14.78 (SD = 4.50) years of education completed. Participants completed a neuropsychological battery in Spanish and were divided into two groups: NSD (n = 61) and ASD (n = 26). The Stroop Color Word Test - Color-Word (SCWT-CW) task, phonemic verbal fluency task consisting of three trials, and semantic verbal fluency task consisting of one trial were used to evaluate executive functioning. In addition, participants completed the Hospital Anxiety and Depression Scale in Spanish to report the current level of depression. ANCOVAs, controlling for age were used to examine executive functioning performance. We used a threshold of  $p < .05$  for statistical significance.

**Results:** ANCOVAs revealed the NSD group outperformed the ASD group on the SCWT-CW task,  $p = .004$ ,  $\eta^2 = .10$ . We also found the NSD group outperformed the ASD group on the phonemic verbal fluency task,  $p = .045$ ,  $\eta^2 = .05$ . Finally, no significant differences were found between depression groups on the semantic verbal fluency task.

**Conclusions:** As we predicted, the NSD group demonstrated better executive functioning abilities compared to the ASD group, except on the semantic verbal fluency task. Our data suggests that the current level of depression have a significant influence on verbal executive functioning abilities in a Spanish speaking population. Future studies with larger sample size should evaluate if current symptoms of depression influence non-verbal executive functioning abilities in a Spanish speaking Mexican population.

**Categories:** Executive Functions/Frontal Lobes

**Keyword 1:** depression

**Keyword 2:** executive functions

**Keyword 3:** cognitive functioning

**Correspondence:** Natalia Lozano Acosta, Monterrey Institute of Technology and Higher Education, The Lundquist Institute, natalia.lozano000@gmail.com

## 90 Self-Rated Executive Dysfunction in Older Adults with Subjective Cognitive Dysfunction and Mild Cognitive Impairment

Ryan C Thompson<sup>1,2</sup>, Melissa M Gardner<sup>1,3</sup>, Grant G Moncrief<sup>1</sup>, Robert M Roth<sup>1</sup>

<sup>1</sup>Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA. <sup>2</sup>Palo Alto University, Palo Alto, CA, USA. <sup>3</sup>William James College, Newton, MA, USA

**Objective:** Mild cognitive impairment (MCI) is characterized by subjective and objective memory concerns, though additional cognitive concerns are commonly reported, including changes in executive functions (EF). Rabin et al. (2006) showed that a sample of research participants with MCI endorsed problems with their EFs, especially working memory. Similarly, those with subjective cognitive dysfunction (SCD) also reported greater difficulty with aspects of their EF than a healthy comparison sample of older adults (HC). In the present study, we investigated subjective EF in clinical samples of older adults with MCI or SCD, which represents a more naturalistic sample relative to a research sample. Furthermore, we evaluated whether subjective EF varied in these groups depending on whether patients were “young-old” versus “old-old” given prior research indicating objective cognitive differences between these age groups.

**Participants and Methods:** Participants were 135 older adults (53 MCI, 52 SCD, and 30 HC) matched for age ( $p = .116$ ) and education ( $p = .863$ ). Dichotomous categorization of age used the sample median (72 years) as cutoff score with 72 participants in the young-old group (mean age =  $65.8 \pm 4.7$  years) and 63 in the old-old group (mean age =  $78.1 \pm 3.7$  years). Participants completed the Behavior Rating Inventory of Executive Function-Adult (BRIEF-A), assessing executive functions in everyday life over the past month. The BRIEF-A yields an overall score (Global Executive Composite [GEC]) composed of two index scores (Behavioral Regulation Index [BRI] and Metacognition Index [MI]) and nine clinical scales (Inhibit, Shift, Emotional Control, Self-Monitor, Initiate, Working Memory, Plan/Organize, Task Monitor, and Organization of Materials). A diagnosis by age-group multivariate analysis of variance (MANOVA) with post-hoc comparisons for diagnosis using a

Tukey HSD correction was conducted using SPSS Version 24.

**Results:** MCI and SCD groups endorsed worse EF on all three index scores ( $ps < .005$ ) and all nine clinical scales ( $ps < .05$ ) relative to the HC group, and the MCI group reported worse initiation relative to the SCD group. Additionally, worse executive functions on all three index scores ( $ps < .05$ ) and four clinical scales ( $ps < .05$ ; emotional control, self-monitoring, planning/organization, and task monitoring) were reported by the young-old group relative to the old-old group. No diagnosis by age-group interactions were observed.

**Conclusions:** Problems with aspects of EF were endorsed by older adults with MCI and SCD compared to HCs across all indices and clinical scales; however, only initiation was reported to be worse in MCI than those with SCD. Additionally, the young-old group endorsed having worse EF than the old-old group across BRIEF-A indices and several more specific aspects of EF, without a moderating effect of diagnosis. These findings highlight the importance of assessing subjective EF in older adults, as they may be early indicators of cognitive change, prior to objective evidence of cognitive decline. Furthermore, results also point to differences in how the young-old and old-old perceive their EF in everyday life.

**Categories:** Executive Functions/Frontal Lobes

**Keyword 1:** executive functions

**Keyword 2:** mild cognitive impairment

**Keyword 3:** aging disorders

**Correspondence:** Ryan C. Thompson, Dartmouth-Hitchcock Medical Center, ryan.c.thompson@hitchcock.org

### 91 Personality Traits Account for Variability in Self-Reported Executive Functioning but not Objective Executive Performance.

Vasilios C. Ikonou, Melissa A. Myers, Nanako A. Hawley, Jasmin H. Pizer, Ivan A. Campbell, Bailey Wagaman, Benjamin D. Hill  
University of South Alabama, Mobile, AL, USA

**Objective:** This study evaluated the relation between five-factor model (FFM) personality traits and intra-individual variability (IIV) in

executive functioning (EF) using both subjective self-report and objective measures of EF.

**Participants and Methods:** 165 university participants ( $M=19$  years old,  $SD=1.3$ ; 55.2% White, 35.2% African American, 72.7% female) completed the Barkley Deficits in Executive Functioning Scale-Long Form (BDEFS), IPIP-NEO Personality Inventory, Trail-Making Test (TMT) Parts A and B, and the Neuropsychological Assessment Battery (NAB) EF module. A participant's IIV was calculated as the standard deviation around their own mean performance. Objective EF IIV was computed from T-scores for performance on Trails A, Trails B, and the NAB EF module. Subjective EF IIV was computed from T-scores for performance across BDEFS domains.

**Results:** Pearson  $r$  correlations were used to evaluate the relation between subjective and objective IIV and FFM traits of personality. Subjective EF IIV was positively correlated with FFM neuroticism [ $r=.48$ ;  $p<.001$ ] and negatively correlated with FFM conscientiousness [ $r=-.43$ ;  $p<.001$ ], extraversion [ $r=-.18$ ;  $p=.023$ ] and agreeableness [ $r=-.22$ ;  $p=.004$ ]. There were no significant associations between FFM traits and objective EF IIV performance. There was additionally no significant relation between subjective EF IIV performance and objective EF IIV.

**Conclusions:** Personality traits were associated with individual variability on a self-reported measure of EF but not on performance-based EF measures. These results suggest that IIV for the BDEFS was influenced by personality traits, particularly neuroticism and conscientiousness, and may reflect method variance. It was notable that IIV was not correlated between subjective and objective EF measures.

**Categories:** Executive Functions/Frontal Lobes

**Keyword 1:** personality

**Keyword 2:** executive functions

**Keyword 3:** assessment

**Correspondence:** Vasilios C. Ikonou, University of South Alabama, vci2121@jagmail.southalabama.edu

### 92 Inflammatory Biomarkers Mediate the Relationship between Perceived Stress and Executive Functions

Savana M Jurgens, Jasmeet P Hayes