

.17), working memory ($r = .22$), speed and flexibility ($r = .39$), CES-D ($r = -.29$), HDL ($r = .26$), and SPI2 ($r = .59$). **Conclusions:** Preliminary results across sleep measures link higher sleep ratings to better cognitive scores and healthier values on metabolic biomarkers. Longitudinal follow-up is needed to elucidate whether sleep plays a moderating or mediating role in the relationship between metabolic health, depression and cognitive decline.

P3-186

ACADEMIC ACHIEVEMENT IN HIGH SCHOOL ENGLISH COURSES AND RISK OF ALZHEIMER'S DISEASE AND DEMENTIA: FINDINGS FROM THE NUN STUDY

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Background: Characteristics of English language skills (idea density, grammatical complexity) reflected in autobiographies written in English have been found to be strong predictors of Alzheimer's disease (AD) in the Nun Study. An alternate measure of linguistic ability, academic achievement in English courses, also reflects proficiency in English language skills and thus may be associated with AD. **Methods:** The Nun Study is a longitudinal study of aging in 678 participants 75+ years living in the United States. Records of academic achievement in first-year high school English courses were available from convent archives. Grades were dichotomized at 80%, with participants earning a grade less than 80% reflecting the lowest quintile of achievement. Dementia was diagnosed based on DSM-IV criteria. AD was diagnosed based on meeting criteria for both clinical dementia and AD neuropathology (NIA-Reagan intermediate/high likelihood). The association of academic achievement in English with dementia and AD was assessed using multiple logistic regression models. Dementia likelihood was assessed in 318 participants with English as a primary language, complete data on all covariates, and cognitive assessment at the last exam before death; AD likelihood was assessed in 248 deceased participants with English as a primary language, complete data on all covariates and neuropathologic assessment. **Results:** The likelihood of dementia more than doubled in individuals with low academic achievement in their first-year high school English course (odds ratio [OR]=2.25; 95% confidence interval [CI]=1.26-3.99). This association remained significant after adjustment for age at last cognitive assessment, education and presence of an apolipoprotein E-e4 allele (APOE-e4) (OR=2.06; 95% CI=1.12-3.84). Low academic achievement in English was also significantly associated with AD both before (OR=2.27; 95% CI=1.14-4.47) and after adjustment for age at death, education and APOE-e4 (OR=2.51; 95% CI=1.17-5.38). **Conclusions:** Academic achievement in English courses was a significant predictor of dementia and AD, consistent with previous reports of an association with other linguistic ability measures. Studies of multiple measures of linguistic ability will help to elucidate the association of linguistic ability measures with AD and may provide insight into strategies to reduce the risk of AD.

P3-187

WHAT IS THE EXPERIENCE OF BEING AN APOE-ε4 HOMOZYGOTE? FINDINGS FROM THE REVEAL STUDY

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Background: APOE genotyping, a well-documented determinant of genetic risk for AD, is available direct-to-consumer and via research, but little is known about the impact on the highest risk group, e4 homozygotes. We compared persons who learned that they were e4(-), e4 heterozygotes (e4-

HT), and e4 homozygotes (e4-HM) to explore effects of genetic risk disclosure on mood, perceived risk of AD, and AD risk reducing behaviors. **Methods:** Data were combined across three randomized trials testing the impact of APOE disclosure on cognitively normal older adults. Participants learned their APOE genotype and AD risk estimate (range: 6-77%) based on their genotype, gender, ethnicity, and family history. Primary outcomes measured at 6 weeks, 6 months and one year post-disclosure were symptoms of anxiety, depression, and test-specific distress. Also assessed at one year were perceived risk of developing AD (proportions endorsing "high" or "very high"), and self-reported behavior changes (diet, exercise, or taking medications or vitamins). **Results:** The genotypes of the 648 participants were e4(-) (n=399, 62%), e4-HT (n=221, 34%), and e4-HM (n=28, 4%). E4-HT and HM's perceived their risk of developing AD higher than e4(-) ($p < 0.001$), but e4-HT and HM's did not significantly differ on perceived risk as "high" or "very high" (64% versus 72%; $p > 0.05$). E4(-), e4-HT and HM's did not differ in serial depression or anxiety measures (all $p > 0.05$). Test-specific distress was higher among e4-HT and HM's at all time points (all $p < 0.0001$), but e4-HT and HM's did not differ on this measure (all $p > 0.05$). E4-HM's were more likely than e4-HT's and e4(-)'s to report 12 month changes in diet (61% versus 34% and 27%), exercise (58% versus 30% and 28%) and taking medications or vitamins (58% versus 38% and 27%) (all $p < 0.001$). **Conclusions:** Knowledge of being an e4 homozygote compared to being a heterozygote was not associated with increased perceived risk of AD, depression, anxiety or test-specific distress, but it was correlated with greater likelihood of engaging in putative AD risk reducing behaviors. Such findings can inform future efforts to disclose APOE genotype to homozygotes in research trials, consumer settings or clinical practice.

P3-188

PERFORMANCE OF SPANISH-SPEAKING COMMUNITY-DWELLING ELDERLY IN THE U.S. ON THE UNIFORM DATA SET (UDS)

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Background: Spanish is the second most common language spoken in the United States with prevalence of 12% of the total population and about one third of the aging population. Mandates to address the cognitive health of this aging minority population and to include them in research are hampered by limited normative data by which to measure cognitive performance and diagnose dementia. Since 2007, the National Alzheimer's Coordinating Center's (NACC) Uniform Data Set (UDS) has implemented a Spanish Neuropsychological battery which offers the opportunity to provide normative experience. Previous work described the neuropsychological performance for the English version of this battery. Here we present a comparable description of the Spanish version in an attempt to provide a normative data for the Spanish-speaking cohort. **Methods:** A total of 276 subjects in UDS were selected based on the criteria of a clinical diagnosis of normal cognition, CDR equal to 0 and neuropsychological battery administered in Spanish. We extracted their baseline neuropsychological test scores, and analyzed their associations with demographic variables: sex, age and education using univariate and multivariate regression models. For the delayed recall score (Logical Memory A Delayed), the above analyses were also adjusted for the time interval (Logical Memory A Delayed length of time delay). The Trail Making scores (A and B) were log-transformed before applying the above regression analysis. Age and education stratified means and standard deviations of the cognitive scores were reported for this cohort. **Results:** Education was significantly associated with all the tests with higher education associated with better performance. Age was associated with delayed recall, category fluency (animals) and Trails B with higher age associated with poorer performance. Finally, sex was only associated in the Boston Naming test with female gender associated with better performance. **Conclusions:** In this normal