Taylor D Lambertus[1], Matthew R Calamia[2], Julie A Suhr[1]
[1]Ohio University, Athens, Oh, USA. [2]Louisiana State University, Baton Rouge, LA, USA

Objective: Dementia worry (DW) is anxious rumination about personal risk for dementia. Personal experience with dementia may affect DW, such that individuals with personal experience with dementia may have higher worry about developing dementia themselves. Further, dementia knowledge (DK), including what may increase one's dementia risk as well as treatment options for dementias, may be influenced by one's dementia experience. Prior studies have suggested that personal experience alters the relationship of age to DW; no prior studies have examined this for DK. In the present study, we examined whether DW and/or DK were differentially related to age in older adults.
Participants and Methods: Adults (≥ 50 years old; *N*=252) in Ohio and Louisiana completed an online survey. 94 participants reported no personal dementia experiences, and 158 participants endorsed having a biological relative with dementia. The sample ranged in age from 23 to 92 (*M*=65, SD=9.3), with 96% identifying as White and 76% holding advanced degrees. DW was measured with the Dementia Worry Scale. Dementia knowledge was measured with true or false questions about causes and treatments for dementia.
Results: Groups did not differ in age (*p*=.73), education (*p*=.50), or perceived SES (*p*=.28), but did differ in gender (*p*=.06). The experience group had higher dementia knowledge (*p*=.02). In those with biological dementia experience, lower age was related to higher dementia worry (*r*=-.24, *p*=.003) and greater dementia knowledge (*r*=-.18, p=.03). However, in those with no experience, age was not related to either dementia worry (*r*=.04) or to dementia knowledge (*r*=.16). Dementia worry did not relate to dementia knowledge in either group (no experience *r*=.03, experience *r*=.13).
Conclusions: Findings suggest that younger individuals who have personal experience with dementia are highly worried about personal risk for dementia, despite having higher knowledge of dementia. Further, these results demonstrate that dementia knowledge is not related to dementia worry in older individuals with or without biological dementia experience. Findings may be important for informing dementia prevention education efforts.

Categories: Aging
Keyword 1: dementia - Alzheimer's disease
Keyword 2: aging disorders
Correspondence: Taylor D. Lambertus, Ohio University, tl043419@ohio.edu

72 Dietary Fat and Measures of Attention and Learning in Middle-Aged Adults

Taylor M McMillan, Fayeza S Ahmed
University of Maine-Orono, Orono, Maine, USA

Objective: Research examining dietary fat in relation to physical and cognitive health is mixed. Generally, it has been hypothesized that polyunsaturated fatty acids (PUFAs) have vascular, anti-inflammatory, and neuroprotective effects[1,2,3]. Monounsaturated fatty acids (MUFAs) commonly occur with saturated fatty acids (SFA) in certain foods, and some research suggests that consumption is associated with increased vascular risk[4]; however, there is limited research examining combined MUFAs and SFAs consumption from traditional Western diet foods (e.g., pizza, desserts) compared to animal (e.g., butter, cow milk, salmon) and plant products (e.g., coconut oil, cocoa butter). Furthermore, much of the research examining dietary components/supplementation and cognition is in older adult or at-risk samples, with limited research examining the relationships among middle-aged and cognitively unimpaired adults. We present preliminary data from an ongoing pilot study.
Participants and Methods: 39 middle-aged (40-65 years, inclusive) cognitively unimpaired individuals were recruited from the community. The Food Frequency Questionnaire (Short-Form; SF-FFQ) was used to calculate diet components and servings during a "typical week." Attention and working memory were measured using trial one of the California Verbal Learning Test - Third Edition (CVLT-III), Oral Trail Making Test Part B, Number Span (forward and backward), Stroop Color and Color-Word trials. Genetic and other plasma-based data for 25 participants have also been obtained, and analysis is in progress; we plan to analyze these additional components in greater detail once we have achieved our target sample size.

https://doi.org/10.1017/S1355617723005088 Published online by Cambridge University Press

Results: Nonparametric correlation analyses revealed no significant relationships between total dietary fat (as measured by the SF-FFQ) and cognitive performance, which included CVLT Trial 1 (r = .28, p = .09), Oral Trail Making Test Part B (r = .02, p = .89), Number Span Forward (r = .18, p = .27) and Number Span Backward (r = -.04, p = .83), Stroop Color trial (r = -.10, p = .56), and Stroop Color-Word trial (r = -.09, p = .58). Notably, however, data is continuing to be collected and these relationships will be examined further with additional data.
Conclusions: While total fat consumption was expected to be associated with attention and working memory measures, correlations revealed nonsignificant relationships. Notably, there are important limitations to consider, as other expected relationships based on previous research findings/theoretical relationships (e.g., positive correlation between waist-to-hip ratio and fat consumption) were lacking. A primary limitations of this study included a small sample size of cognitive and physically healthy middle-aged adults. Regardless, these relationships should be explored further with a greater and more diverse sample size.

Categories: Aging
Keyword 1: memory disorders
Keyword 2: cognitive functioning
Keyword 3: working memory
Correspondence: Taylor McMillan, University of Maine-Orono, taylor.mcmillan@maine.edu

73 Sex Differences in Verbal Memory and Alzheimer's Disease Biomarkers in Clinically Normal Older Adults: Role of SNAP-25 Genetics

Rowan Saloner[1], Emily W Paolillo[1], Kevin J Wojta[2], Corrina Fonseca[3], Eva Q Gontrum[1], Argentina Lario-Lago[1], Gil D Rabinovici[1], Jennifer S Yokoyama[1], Jessica E Rexach[2], Joel H Kramer[1], Kaitlin B Casaletto[1]
[1]University of California, San Francisco, San Francisco, CA, USA. [2]University of California, Los Angeles, Los Angeles, CA, USA. [3]University of California, Berkeley, Berkeley, CA, USA

Objective: Females outperform males on verbal memory tests across the lifespan. Females also exhibit greater Alzheimer's disease (AD) pathology at preclinical stages and faster atrophy and memory decline during disease progression. Synaptic factors influence the accumulation of AD proteins and may underpin cognitive resilience against AD, though their role in sex-related cognitive and brain aging is unknown. We tested interactive effects of sex and genetic variation in *SNAP-25*, which encodes a presynaptic protein that is dysregulated in AD, on cognition and AD-related biomarkers in cognitively unimpaired older adults.
Participants and Methods: Participants included a discovery cohort of 311 cognitively unimpaired older adults (age mean [range]=70 [44-100]; 56% female; education mean=17.3 years; 24% *APOE*-e4+), and an independent, demographically-comparable replication cohort of 82 cognitively unimpaired older adults. All participants completed neurological examination, informant interview (CDR=0), neuropsychological testing, and blood draw. Participants were genotyped for the *SNAP-25* rs105132 (T→C) single-nucleotide polymorphism via Sequenom (discovery cohort) or Omni 2.5M (replication cohort). In vitro models show the C-allele is associated with increased SNAP-25 expression compared to T/T genotype. A subset of the discovery cohort completed structural MRI (n=237) and florbetapir Aβ-PET (n=97). Regression analyses across cohorts examined the interaction of sex and *SNAP-25* genotype (T/T homozygotes [53% prevalence] vs. C-carriers [47% prevalence]) on cognitive z-scores (verbal memory, visual memory, executive function, language), adjusting for age, education, *APOE*-e4, and *APOE*-e4 x sex. Discovery cohort models also examined sex-dependent effects of *SNAP-25* on temporal lobe volumes and Aβ-PET positivity.
Results:
SNAP-25 T/T vs. C-carriers did not differ on demographics or *APOE*-e4 status across cohorts or within sexes. Sex interacted with *SNAP-25* to predict verbal memory (p=.024) and language (p=.008) in the discovery cohort, with similar verbal memory differences observed in the replication cohort. In sex-stratified analyses, C-carriers exhibited better verbal memory than T/T carriers among females (d range: 0.41 to 0.64, p range: .008 to .046), but not males (d range: 0.03 to 0.12, p range: .499 to .924). In *SNAP-25*-stratified analyses, female verbal memory advantages were larger among C-carriers (d range: 0.74 to 0.89, p range: <.001 to

https://doi.org/10.1017/S1355617723005088 Published online by Cambridge University Press