

between SUVR and FCSRT scores only in the parietal lobes and precuneus regions. Model fits were generally similar across the different analyses.

Conclusions: In this sample of individuals screened for a secondary prevention trial of AD, there were consistent associations between A β SUVR in all regions and memory for those considered amyloid positive. However, for individuals considered amyloid negative, there were only very small associations between SUVR and memory in parietal and precuneus regions. We conclude that the dynamic range of amyloid may be relevant among those with diagnostic evidence of amyloidosis, but that subtle A β accumulation in posterior regions may relate to declining memory in "subthreshold" states.

Categories: Aging

Keyword 1: neuroimaging: functional

Keyword 2: neurocognition

Keyword 3: positron emission tomography

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37 Perceived Financial Exploitation Vulnerability is Associated with Morphometry of the Parahippocampal Gyrus and Entorhinal Cortex in Cognitively Normal Older Adults

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Objective: Prior work suggests financial exploitation vulnerability may be an early behavioral manifestation of Alzheimer's disease (AD). Brain morphometric measures of the parahippocampal gyrus and entorhinal cortex have been shown to be sensitive to early AD progression. We hypothesized that perceived financial exploitation vulnerability may be associated with morphometric measures of the parahippocampal gyrus and entorhinal cortex in

cognitively unimpaired older adults. We secondarily investigated the association of morphometric measures with neuropsychological measures.

Participants and Methods: The sample consisted of 39 cognitively unimpaired older adults (mean age = 68.74 \pm 6.43, mean education = 16.87 \pm 2.35, 77% female). Cognitive impairment was screened using the telephone version of the Montreal Cognitive Assessment (MoCA) and the cut-off was 21 for study participation. Perceived financial exploitation vulnerability was characterized using a 6-item self-report measure derived from the contextual items of the Lichtenberg Financial Rating Scale. Neuropsychological measures included the CVLT-II Long Delay Free Recall (verbal memory), Benson Complex Figure Recall (visual memory), and Verbal Fluency: Phonemic Test from the Alzheimer's Disease Centers' Uniform Data Set (UDS) version 3. Brain images were collected on a 7 Tesla Siemens Magnetom with the following parameters: TE=2.95ms, TR=2200ms, 240 sagittal slices, acquired voxel size (avs)=0.7mm x 0.7mm x 0.7mm. Structural brain images were processed using FreeSurfer version 7.2.0. Cortical thickness and volume measures were generated using the Killiany/Desikan parcellation atlas. Regions were averaged across hemispheres to obtain a single value for each region. Volume measures were adjusted for intracranial volume. Bivariate analyses were conducted to assess relationships between each outcome variable and potential confounders (age, sex, and education). Linear regression models were adjusted for any covariates significantly associated with the outcome variable (none for perceived financial exploitation vulnerability; sex and age for verbal memory; education for visual memory; sex for verbal fluency).

Results: Smaller entorhinal cortex volume (β = -1275.14, SE = 582.79, p < 0.05) and lower parahippocampal gyrus thickness (β = -3.37, SE = 1.57, p < 0.05) were significantly associated with greater perceived financial exploitation vulnerability. Lower entorhinal cortex thickness was marginally associated with greater perceived financial exploitation vulnerability (β = -2.03, SE = 1.11, p = 0.08). Higher parahippocampal gyrus thickness was associated with better verbal fluency (β = 17.66, SE = 7.01, p < 0.05). Higher entorhinal cortex thickness was associated with better visual memory (β = 4.71, SE = 1.73, p < 0.05). No

significant associations were observed between structural brain measures and verbal memory.

Conclusions: These results suggest smaller entorhinal cortex volume and lower parahippocampal gyrus thickness are associated with higher perceived financial exploitation vulnerability in cognitively normal older adults. Additionally, parahippocampal gyrus thickness appears to be associated with verbal fluency abilities while entorhinal cortex thickness appears to be associated with visual memory. Taken together, these findings lend support to the notion that financial exploitation vulnerability may serve as an early behavioral manifestation of preclinical AD. Longitudinal studies are needed to better understand the temporal nature of these relationships.

Categories: Aging

Keyword 1: neuroimaging: structural

Keyword 2: dementia - Alzheimer's disease

Keyword 3: decision-making

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38 Real-World Goal Setting and Follow Through in Young and Older Adults

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Objective: The ability to generate, plan for, and follow through with goals is essential to everyday functioning. Compared to young adults, cognitively normal older adults have more difficulty on a variety of cognitive functions that contribute to goal setting and follow through. However, how these age-related cognitive differences impact real-world goal planning and success remains unclear. In the current study,

we aimed to better understand the impact of older age on everyday goal planning and success.

Participants and Methods: Cognitively normal young adults (18-35 years, n= 57) and older adults (60-80 years, n= 49) participated in a 10-day 2-session study. In the first session, participants described 4 real-world goals that they hoped to pursue in the next 10 days. These goals were subjectively rated for personal significance, significance to others, and vividness, and goal descriptions were objectively scored for temporal, spatial, and event specificity, among other measures. Ten days later, participants rated the degree to which they planned for and made progress in their real-world goals since session one. Older adults also completed a battery of neuropsychological tests.

Results: Some key results are as follows. Relative to the young adults, cognitively normal older adults described real-world goals which navigated smaller spaces (p=0.01) and that they perceived as more important to other people (p=0.03). Older adults also planned more during the 10-day window (p<0.001). There was not a statistically significant age group difference, however, in real-world goal progress (p=0.65). Nonetheless, among older participants, goal progress was related to higher mental processing speed as shown by the Trail Making Test Part A (r=0.36, p=0.02) and the creation of goals confined to specific temporal periods (r=0.35, p=0.01). Older participants who scored lower on the Rey Complex Figure Test (RCFT) long delay recall trial reported that their goals were more like ones that they had set in the past (r= -0.34, p=0.02), and higher episodic memory as shown by the RCFT was associated with more spatially specific goals (r=0.32, p=0.02), as well as a greater use of implementation intentions in goal descriptions (r=0.35, p=0.02).

Conclusions: Although older adults tend to show decline in several cognitive domains relevant to goal setting, we found that cognitively normal older adults did not make significantly less progress toward a series of real-world goals over a 10-day window. However, relative to young adults, older adults tended to pursue goals which were more important to others, as well as goals that involved navigating smaller spaces. Older adults also appear to rely on planning more than young adults to make progress toward their goals. These findings reveal age group differences in the quality of goals and individual differences in goal success among older adults. They are also in line with