

abilities may have greater communicative effectiveness and, in turn, may be better able to maintain social relationships and garner social support. Future research is needed to evaluate the causality in this relationship, as it remains possible those with stronger social support networks maintain communicative effectiveness and EF for longer. Thus, further evaluation of the mechanism(s) underlying the relationships between social support, EF, and communicative effectiveness is needed.

**Categories:** Dementia (Alzheimer's Disease)

**Keyword 1:** cognitive functioning

**Keyword 2:** social processes

**Keyword 3:** mild cognitive impairment

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#### 44 Can Clinical Trial data Inform our Understanding of the role of Depressive Symptoms in Alzheimer's Disease?

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**Objective:** Neuropsychiatric symptoms concerning mood are common in Alzheimer's disease (AD), but it is unclear if they are etiologically related to AD pathophysiology or due to factors considered to be non-pathogenic, such as small vessel cerebrovascular disease. New generation clinical trials for AD often enroll participants with evidence of AD pathophysiology, indexed by amyloid PET scanning, but who are cognitively asymptomatic. We used screening data from the Anti-Amyloid Treatment in Asymptomatic Alzheimer's (A4) study to examine the extent to which depressive symptoms are associated with amyloid pathophysiology and small vessel cerebrovascular disease, in the form of white matter hyperintensities (WMH).

**Participants and Methods:** The A4 study randomizes cognitively healthy older adults with evidence of amyloid pathophysiology on PET scanning. We used screening data, which included amyloid status (positive, negative) by

visual read, amyloid PET standard uptake value ratio (SUVR) in cortical regions, and MRI data acquired in a subset (n=1,197, mean age 71.6 +/- 4.8 years, 57% women) to quantitate total WMH volume. Depressive symptoms were evaluated with the 15-item Geriatric Depression Scale, which we used both as a continuous variable and to define 'depressed' and 'non-depressed' groups, based on a cut score of > 5. We examined whether 1) depressive symptoms and proportion of depressed individuals differed between amyloid positive and negative groups, 2) there is a relationship between amyloid SUVR and depressive symptoms that differs as a function of amyloid positivity status, and 3) there is a relationship between WMH volume and depressive symptoms that differs as a function of amyloid positivity status.

**Results:** Although depressive symptom severity did not differ between groups (t=0.14, p=0.88), a greater proportion of individuals were classified as depressed in the amyloid negative group than the amyloid positive group (3.5% vs. 1.9%,  $\chi^2=4.60$ , p=0.032). Increased amyloid SUVR was associated with increased GDS scores among amyloid positive individuals (r=0.117, p=0.002) but not among amyloid negative individuals (r=0.006, p=0.68, Positivity Status x SUVR interaction on GDS:  $\beta=0.817$ , p=0.029). Increased WMH was associated with higher GDS scores ( $\beta=0.105$ , p=0.017) but not differentially in amyloid positive and negative participants (Positivity Status x WMH interaction on GDS:  $\beta=-0.010$ , p=0.243).

**Conclusions:** These analyses have several implications. First, individuals who are screened to participate in a clinical trial but do not have evidence of amyloidosis may be misattributing concerns about underlying AD pathophysiology to depressive symptoms. Second, the severity of AD pathophysiology, indexed by amyloid PET SUVR, may drive a small increase in depressive symptomatology among individuals over visual diagnostic thresholds. Third, small vessel cerebrovascular changes are additionally associated with depressive symptoms but in a manner that is independent of AD pathophysiology. Overall, depressive symptoms and depression are likely multiply determined among prospective clinical trial participants for preclinical AD.

**Categories:** Dementia (Alzheimer's Disease)

**Keyword 1:** depression

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#### 45 Family Members' Perceptions of the Benefits of the Neuropsychological Evaluation

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**Objective:** The objectives of this study were to investigate family members' perception of the impact of the neuropsychological evaluation and subsequent feedback session on (1) caregiver understanding of the patient's diagnosis and symptoms and (2) treatment planning, patient well-being, caregiver stress, and support utilization.

**Participants and Methods:** Participants included family members of patients undergoing a neuropsychological dementia evaluation and subsequent oral feedback session at a midwestern university medical center by one of five neuropsychology providers. The average age of patients undergoing dementia evaluation was 73.4 (range = 52 - 92). Patients in the sample were categorized as having dementia (67%), mild cognitive impairment (24%), or no cognitive disorder (9%), with 46% of the sample suspected to have Alzheimer's disease or mixed Alzheimer's and vascular disease. Immediately following the feedback session, family members were provided a brief survey, \$10 prepaid gift card to keep regardless of survey completion, and a stamped, pre-addressed envelope to return the survey anonymously by mail. A total of 200 surveys were disseminated and 127 (64%) were completed and returned. Family members completing the survey were most often the spouse (60.6%) or the child (29.1%) of the patient. Eighty-two percent of respondents identified as being the patient's primary caregiver.

**Results:** Family members were asked to rate their agreement to perceptions held both prior to and following the neuropsychological evaluation. Ninety-seven percent strongly agreed (81%) or agreed (16%) that the neuropsychological evaluation was helpful, and 95% strongly agreed (62%) or agreed (33%) that the neuropsychological evaluation would help the

patient get better or more targeted care. Comparison using Wilcoxon signed-rank tests indicated that family members were significantly more likely to agree ( $p < .001$ ) with the following beliefs after, as opposed to preceding, the neuropsychological evaluation: (1) the patient's symptoms had been well addressed ( $z = -7.95$ ), (2) I was explained the diagnosis ( $z = -8.12$ ), (3) I am confident in my family member's diagnosis ( $z = -7.88$ ), and (4) I am more likely to use dementia-related community resources ( $z = -5.78$ ). Additionally, family members nearly unanimously agreed or strongly agreed that, following the neuropsychological evaluation, their family member's symptoms had been well addressed (98%), they were explained the patient's diagnosis (98%), and they were confident in the diagnosis (97%). In instances where dementia was diagnosed, 91% of family members agreed/strongly agreed that they planned to use dementia-related community resources. Furthermore, a majority of family members reported that the neuropsychological evaluation positively impacted the patient's psychological wellbeing (82%), caregiver stress (74%), caregiver interactions with the patient (76%), treatment plan (82%), and overall patient care (79%).

**Conclusions:** Results indicate that family members of patients undergoing neuropsychological evaluation for suspected dementia perceive the neuropsychological evaluation as improving diagnostic understanding and confidence. Additionally, family members nearly unanimously agreed that the neuropsychological evaluation had a positive impact on treatment planning, patient well-being, caregiver stress, and utilization of supports.

**Categories:** Dementia (Alzheimer's Disease)

**Keyword 1:** neuropsychological assessment

**Keyword 2:** dementia - Alzheimer's disease

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#### 46 The Neuropsychological Evaluation Provides Incremental Value When Compared to Services Rendered by Other Providers

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