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**Objective:** Physical inactivity is associated with a greater risk of frailty, neuropsychiatric symptoms, worse quality of life, and increased risk for Alzheimer's disease. Little is known about how physical activity engagement of older adults during the COVID-19 pandemic relates to subjective cognitive concerns and management of emotional distress. This study aimed to examine whether there were changes in physical activity during the pandemic in older adults at baseline and 3 months compared to before the pandemic and whether these changes varied based on age, sex, income level, and employment status. Further, we examined whether individuals who reported engaging in less physical activity experienced greater subjective cognitive difficulties and symptoms of depression and anxiety than those who maintained or increased their physical activity levels.

**Participants and Methods:** 301 participants (73% non-Hispanic whites) completed an online survey in either English or Spanish between May and October 2020 and 3 months later. The Everyday Cognition Scale was used to measure subjective cognitive decline, the CES-D-R-10 scale to measure depressive symptoms, and the GAD-7 scale to measure anxiety symptoms. Changes in physical activity were measured with the question "Since the coronavirus disease pandemic began, what has changed for you or your family in regard to physical activity or exercise levels?" with options "less physical activity," "increase in physical activity," or "same activity level." Income was self-reported as high, middle, or low. Analyses of chi-squared tests were used to examine differences in physical

activity maintenance by age, income level, sex, and employment status.

**Results:** Most individuals (60%) reported having decreased their physical activity levels during the pandemic, at baseline and 3-month follow-up. There were differences in physical activity levels based on income and age: participants with a high income reported engaging in more physical activity than those with low income ( $X^2=4.78, p=.029$ ). At the 3-month follow-up, middle-income participants reported being less active than the high-income earners ( $X^2=8.92, p=.003$ ), and younger participants (55-65 years, approximately) reported being less active than older participants ( $X^2=5.28, p=.022$ ). Those who reported an increase in their physical activity levels had fewer cognitive concerns compared to those who were less active at baseline, but this difference was not seen in the 3-month follow-up. Participants of all ages who reported having maintained or increased their physical activity levels had fewer depressive symptoms than those who were less active ( $p \leq 0.0001$ ). Those who reported maintaining their physical activity levels exhibited fewer anxiety symptoms than those who were less active ( $p \leq 0.01$ ).

**Conclusions:** Older adults reported changes in physical activity levels during the pandemic and some of these changes varied by sociodemographic factors. Further, maintaining physical activity levels was associated with lower symptoms of depression, anxiety, and cognitive concerns. Encouraging individuals and providing resources for increasing physical activity may be an effective way to mitigate some of the pandemic's adverse effects on psychological wellbeing and may potentially help reduce the risk for cognitive decline. Alternately, it is possible that improving emotional distress could lead to an increase in physical activity levels and cognitive health.

**Categories:** Other

**Keyword 1:** aging (normal)

**Keyword 2:** depression

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**95 Fear of Falling Associated with Decreased Attention and Executive Functioning in Caregivers**

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**Objective:** Fear of falling is an anxiety-related phenomenon that is associated with increased risk of morbidity and mortality in older adults. Furthermore, a growing body of research has established the relationship between fear of falling and decreased cognitive functioning within various populations (i.e., older adult, multiple sclerosis, stroke survivors). Yet there is little information on the relationship between fear of falling and cognition outside of a geriatric context, with no publications investigating this relationship within informal caregivers. It is important to understand this relationship within caregiver populations because fear of falling may negatively impact caregivers' ability to take care of themselves and their care recipients. The present study examines the relationship between fear of falling and cognitive function in informal caregivers.

**Participants and Methods:** Fifty informal caregivers (86% female; 58% White; 10% Hispanic or Latino; 82% married; 53% with at least a bachelor's degree; mean age = 57.76 ± 16.60 years) were assessed at the VA Palo Alto Health Care System in Palo Alto, CA. Fear of falling was measured via the Short Falls Efficacy Scale. Areas of cognitive functioning included verbal attention (Rey Auditory Verbal Learning Task [RAVLT] Trial 1), learning and memory (RAVLT Trials 1-5), delayed memory (RAVLT Delayed Recall), visual attention (Stroop Color, Stroop Word), and executive function (Stroop Color Word). Analyses included linear regressions with age as a covariate in all models.

**Results:** Analyses revealed that fear of falling was significantly associated with decreased verbal attention (RAVLT Trial 1:  $\beta = -0.34$ ,  $p = 0.02$ ,  $t = -2.35$ ,  $CI = [-0.659, -0.051]$ ) and with decreased executive functioning (Stroop Color Word:  $\beta = -0.35$ ,  $p < 0.001$ ,  $t = -3.10$ ,  $CI = [-4.097, -0.874]$ ). Fear of falling was not significantly associated with learning and memory or visual attention.

**Conclusions:** Fear of falling negatively impacts verbal attention and executive functioning, regardless of age. To our knowledge, this is the first study to examine the relationship between fear of falling and cognition outside of a geriatric population and within a caregiver sample. Findings suggest a need for additional assessment, research, and treatment of fear of falling within informal caregivers. Caregivers may need to be assessed for anxiety-related symptoms such as fear of falling on a more regular basis. A caregiver experiencing fear of falling, as well as difficulties with attention and executive functioning, can result in increased risk of functional and cognitive decline for both the caregiver and their care recipient. It is integral that future research investigates this relationship longitudinally to identify if the negative impact of fear of falling on cognition is reversible.

**Categories:** Other

**Keyword 1:** attention

**Keyword 2:** executive functions

**Keyword 3:** anxiety

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## 96 The Proportion of Patients with Cerebrospinal Fluid Biomarkers Consistent with Alzheimer's Disease in a Cohort with Suspected Normal Pressure Hydrocephalus

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**Objective:** Normal pressure hydrocephalus (NPH) is characterized by pathologically enlarged ventricles without elevated cerebrospinal fluid (CSF) pressure along with a triad of clinical symptoms including gait disturbances, urinary incontinence, and cognitive impairment. NPH is evaluated with lumbar drain trials (LDTs) where CSF is removed over several days to determine if patients would benefit from ventricular shunting.