

occurrence of cardiovascular events. However, little is known about how caregiver burden affects patient cognition in dementia care dyads. Using data from the National Health and Aging Trends Study and National Study of Caregiving, we examined the association between caregiver burden, assessed on 38 aspects of caring, and patient cognition, assessed with the immediate and delay word recall, Clock Drawing, and self-rated memory. In fully adjusted models at round 7 (2017) higher caregiver burden was cross-sectionally associated with lower immediate ($B=-0.02$, 95% CI -0.03, -0.01) and delayed ($B=-0.03$, 95% CI -0.04, -0.02) word recall. Longitudinally, across rounds 7-9 (2017-2019) higher burden was associated with lower patient Clock Draw score ($B=-0.01$, 95% CI -0.03, -0.001). These findings have implications for economic assistance and interventions in dementia care dyad.

LINKS OF SHORT PHYSICAL PERFORMANCE BATTERY SCORE WITH INCIDENT DEMENTIA: RESULTS FROM THE NHATS

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Physical performance is associated with cognitive function in later life, but few studies have examined the prospective association of physical performance with incident dementia. We studied 4539 community-dwelling National Health and Aging Trends Study (NHATS) participants aged ≥ 65 years with data on demographics and the Short Physical Performance Battery (SPPB) in 2011, who were followed through 2014. Our outcome was dementia diagnosis from a validated NHATS algorithm. We applied survey weights to make results nationally representative and performed Cox regression analyses. After adjustment for potential confounders, lower baseline SPPB scores were associated with incident dementia ($HR=1.68$, $p < 0.01$). Slower gait speed was the SPPB component most strongly associated with incident dementia ($HR=1.21$, $p < 0.01$). We found that poorer physical performance was linked to incident dementia in a cohort of older adults. More research is needed to examine the effect of improving physical performance on the prevention of dementia.

PREVALENCE OF CONCURRENT FUNCTIONAL VISION AND HEARING IMPAIRMENT AND ITS ASSOCIATION WITH DEMENTIA

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Vision and hearing impairment are common and independently linked to dementia risk. Adults with concurrent vision and hearing impairment (dual sensory impairment, DSI) may be particularly at-risk. Data were from the National Health and Aging Trends Study (NHATS) (2011–2018, $N=7,562$). Functional sensory impairments were self-reported (no impairment, vision only, hearing only, and DSI). We calculated age-specific prevalence of sensory impairments. Discrete time proportional hazards model with a complementary log-log link were used to assess 7-year dementia risk. Of 7,562 participants, overall prevalence of functional vision, hearing and DSI was 5.4%, 18.9% and 3.1%, respectively. DSI prevalence increased with age, impacting 1 in 7 adults ≥ 90 years. DSI was associated with a 50% increased 7-year dementia risk (adjusted hazard ratio 1.50; 95% confidence interval, 1.12–2.02) compared to no impairment. Sensory rehabilitative interventions for multiple impairments may be an avenue for consideration in efforts to reduce dementia risk.

WORKING WHILE CARING FOR OLDER ADULTS WITH HEARING IMPAIRMENT AND DEMENTIA: EVIDENCE FROM THE NSOC

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Age-related hearing loss (HL) and dementia are common among older adults. The implications of caregiving for older adults with dementia is documented. Whether the presence of HL modifies these association is unknown. We used data from the 2011 NHATS/NSOC. Hearing loss and dementia were identified among care recipients (CR). Our outcomes included: hours of care provided, and caregiver's work activities. Among 1,013 caregivers, 456 assisted individuals without HL or dementia (HL-/D-), 229 with dementia (D+), 193 with HL, and 135 with HL and dementia (HL+/D+). In fully adjusted models, as compared to caregivers of HL-/D-, caregivers of D+ spent 39.1 hours more (95% CI: 13.6,64.6) in caregiving, caregivers of HL+/D+ spent 56.6 more hours (95% CI: 25.1,88.1). We found no differences in work activities between CR groups. The presence of HL increases the caregiving needs of adults with dementia. The additional time does not affect the labor participation of caregivers.

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CHRONOBIOLOGICAL FACTORS RELATED TO SLEEP AND NEUROPSYCHIATRIC SYMPTOMS IN PERSONS LIVING WITH DEMENTIA

Chair: Nancy Hodgson Co-Chair: Fanghong Dong

Circadian rhythm disturbances (CRD) are commonly seen in people living with dementia. A clear understanding of the role of CRD in dementia etiology will be beneficial by exploring the exogenous factors (externally influence the duration of