

models to compare 13 anticholinergic scales and anticholinergic burden (ACB) due to different classes of drugs in their association with dementia. We find dementia to be more strongly predicted by ACB than by polypharmacy across most anticholinergic scales (standardised ORs range: 1.027-1.125). Furthermore, not only the baseline ACB, but the slope of the longitudinal trajectory of ACB (HR=1.094; 95% CI: 1.068-1.119) is predictive of dementia. However, the association between ACB and dementia holds only for some classes of drugs – especially antidepressants, antiepileptics, and high-ceiling antidiuretics. Moreover, we do not find a clear relationship between reported anticholinergic potency and dementia risk. The heterogeneity in findings on the association between ACB and dementia may in part be due to different effects for different classes of drugs. Future studies should establish such differences in more detail and further examine the practicality of using a general measure of anticholinergic potency as it relates to the risk of dementia.

#### ASSOCIATION OF SHOULDER DYSFUNCTION WITH MOBILITY LIMITATION IN OLDER ADULTS OF THE BLSA

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Mobility limitation affects one-third of older adults; yet, the impact of shoulder dysfunction which effects roughly 20%, is inadequately documented. As arm swing is a fundamental component of ambulation, we investigated the cross-sectional association between shoulder range of motion (ROM) and walking endurance using time to walk 400m as quickly as possible and lower extremity performance using the expanded Short Physical Performance Battery (e-SPPB). Data are from 614 men (50.5%) and women aged  $\geq 60$  years (mean 71.8  $\pm$  8 years) in the Baltimore Longitudinal Study of Aging (BLSA) who performed bilateral shoulder elevation and/or bilateral shoulder external rotation (ER) during nurse-administered physical examination. We examined odds of poor 400m-walk and e-SPPB performance defined as the worst quartile associated with abnormal shoulder elevation ( $\leq 9\%$ ) relative to bilateral normal shoulder elevation and abnormal shoulder external rotation ( $\leq 5\%$ ) relative to bilateral normal shoulder external rotation (ER) in separate analyses. Analyses were adjusted for age, sex, weight and height. Adjusted odds (95% confidence interval) of poor 400m-walk performance associated with abnormal shoulder elevation (N=254) were 4.7 (1.1-19.5;  $p=0.035$ ) and with abnormal shoulder ER (n=401) were 4.8 (1.4-16.7;  $p=0.010$ ). Adjusted odds of poor e-SPPB performance associated with abnormal shoulder elevation (N=462) were 3.5 (1.6-7.7;  $p=0.002$ ) and with abnormal shoulder ER (n=457) were 2.9 (1.1-7.4;  $p=0.030$ ). Results suggest abnormal shoulder ROM is associated with poorer walking endurance capacity and lower-extremity functional performance in the relatively healthy older adults. Future research is warranted to develop novel screening paradigms that mitigate mobility limitation and functional decline in older adults with shoulder dysfunction.

#### BRAIN CELLULAR SENESCENCE IN MOUSE MODELS OF ALZHEIMER'S DISEASE

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**Abstract** The accumulation of senescent cells contributes to aging pathologies, including neurodegenerative diseases, and its selective removal improves physiological and cognitive function in wild type mice as well as in Alzheimer's disease (AD) models. AD models recapitulate some, but not all components of disease and do so at different rates. Whether brain cellular senescence is recapitulated in some or all AD models, and whether the emergence of cellular senescence in AD mouse models occurs before or after the expected onset of AD-like cognitive deficits in these models is not yet known. The goal of this study was to identify mouse models of AD and AD-related dementias that develop measurable markers of cellular senescence in brain and thus may be useful to study the role of cellular senescence in these conditions. We measured levels of cellular senescence markers in brains of P301S(PS19), P301L, hTau, and 3xTg-AD mice that model amyloidopathy and/or tauopathy in AD and related dementias, and in wild type, age-matched control mice for each strain. Expression of cellular senescence markers in brains of transgenic P301L and 3xTg-AD mice was largely indistinguishable from that in WT control age-matched mice. In contrast, markers of cellular senescence were significantly increased in brains of transgenic P301S and hTau mice as compared to WT control mice at the expected time of onset of AD-like cognitive deficits. Taken together, our data suggest that P301S(PS19) and hTau mice may be useful for the study of brain cellular senescence in tauopathies including, but not limited to, AD.

#### CARE EXPERIENCES AND EXPECTATIONS OF OLDER SEXUAL MINORITY ADULTS

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Sexual minority (SM) adults have unique care needs and experiences, partially because they receive and give care by and to “chosen family”. This study examines the care experiences and expectations of diverse SM adults. Using data from the 2018 AARP Survey “Maintaining Dignity: Understanding and Responding to the Challenges Facing Older LGBT Americans,” logistic and ordinal regressions were conducted to examine associations with care experiences (i.e., provided caregiving and received caregiving) and care expectations (i.e., likelihood of having to provide care and need care) among SM respondents. Gender was highly associated with care experiences, with female respondents being 70% and 74% more likely to have provided caregiving [OR:1.71, SE=.26;  $p<0.001$ ] and received caregiving [OR:1.74, SE=.22;  $p<0.001$ ]. Relationship status was significantly associated with care expectations, with those who were married/civil union/domestic being 4 times [OR:4.0, SE=.52;  $p<0.001$ ] and those in a relationship being 3 times [OR:3.3, SE=.51;  $p<0.001$ ] more likely to expect that they will provide care in the future. Those same respondents had a 64% [OR:1.64, SE=.21,  $p<0.001$ ] and 55% [OR:1.55, SE=.23,  $p<0.01$ ] greater odds of reporting being “very likely” that they will need care in the future. Additionally, older age, being a racial minority, having higher education, and being

employed were significantly and positively associated with care experiences and expectations. These findings provide a deeper insight into how SM individuals of different backgrounds experience and anticipate different aspects of caregiving. Moreover, we will discuss how our findings compare to non-SM individuals and implications of these findings.

#### CAREGIVING AND COVID-19: PERSPECTIVES FROM A CARE COACH

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Family caregivers of community-dwelling older adults have faced unprecedented caregiving challenges during the COVID-19 pandemic. Examining the accumulated impact on family caregivers can help health and aging service providers design resources and supports that are resilient to emergency situations, and reduce negative psychological and physical consequences and risk of abuse within caregiving dyads. Data was collected as part of a pilot intervention in which "Care Coaches" provided telephonic coaching sessions to family caregivers of older adults. We examined Care Coach observations documented after coaching sessions with 24 family caregivers between March 2020 and February 2021. Two coders employed thematic analysis to generate codes and themes. The sample was 70% female, 80% were the spouse or significant other of their care receiver, the mean age was 61, and 53% were Non-Hispanic White. Themes and sub-themes included: (1) increased caregiver burden and diminished care networks due to fear of exposure to or contraction of COVID-19, (2) barriers to accessing in-home personal assistance services and home-delivered meals despite intervention efforts, and (3) the exacerbation of caregiver social isolation due to COVID-19 lockdown policies. Findings highlight the ways in which COVID-19 has amplified caregiver burden through the breakdown of formal and informal support systems. Potential adaptations of community-based services for older adults and their caregivers include remote service liaisons and need assessment of caregiver dyads to assure access to home-based personal assistance services and nutrition support for those at greatest risk of negative consequences during emergency service lapses.

#### CBOS' CAPACITY AND RESILIENCE ON SERVING OLDER AA AND NHPI ADULTS DURING THE PANDEMIC

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Community-based organizations (CBOs) are essential settings for older Asian American (AA) and Native Hawaiian Pacific Islander (NHPI) adults for accessing culturally and linguistically appropriate services and connecting with and support each other. This study examined the impact of the COVID-19 pandemic on CBOs' ability to serve older AA &

NHPI adults. This mixed methods study (survey and semi-structured interviews) used a sequential exploratory design. We recruited 65 leaders and staff members from 40 CBOs serving older AA & NHPI adults nationally. Descriptive analysis was conducted with the survey data followed by thematic analysis of the interview data. Many CBOs were impacted by the increased demands for services (80%) and created new services (75%) while experiencing programming disruption (69%), decreased staffing (55%), and loss of revenue (38%). Some CBOs temporarily closed their organizations (38%), while others closed permanently (3%). To remain in operation, many CBOs (65%) increased their online presence, hired staff (52%), and recurred to financial reserves (20%). The semi-structured interviews identified four themes: 1) CBOs resourcefulness to acquire and share resources, 2) technology as a connector for CBOs and an isolator for older adults, 3) heightened racial discrimination against Asians, and 4) emergence of multi-level resilience (personal/ community/organizational). CBOs experienced disruption in their operation, and heightened racial discrimination during the pandemic. Yet, CBO's ability to remain resilient was critical to continue to provide key programs for older adults. Future studies may want to examine evolving needs of CBOs as they adjust to new public health challenges during the pandemic.

#### CHALLENGE OR OPPORTUNITY? IMPACTS OF FALLS AMONG OLDER ADULTS LIVING WITH DEMENTIA ON THEIR CARE PARTNERS

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Previous studies suggest that falls among community-dwelling older adults living with dementia (OLWD) harm the health and wellbeing of their family/friend care partners. However, little is known about the process through which falls impact care partners. We conducted a grounded theory analysis using 59 semi-structured interviews with care partners of OLWD who were recently hospitalized and had a history of falls. We identified several areas of care partners' functioning that were affected by falls in positive and negative ways: everyday life, health management for OLWD, and interactions with healthcare providers. Both the fall events and fall risks had negative consequences of reducing care partners' self-care activities and work productivity. Other adverse consequences of fall risks were (1) care partners' fatigue and conflicts with OLWD due to the intense requirement of daily monitoring, and (2) hesitance to ask healthcare providers for assistance because clinicians frequently did not teach care partners how to address fall risks and might recommend institutionalization. However, OLWD's fall events became a transition point for some care partners to seek support and gain more information and skills about managing OLWD's health conditions, which might reduce care partners' burden in the long term. Because OLWD's falls may have negative and positive consequences for care partners, both problem-solving and strength-based fall management approaches are needed. These strategies focus on developing and sustaining care partners' self-care, developing collaborative relationships with OLWD, enhancing successful capacity