two-thirds (64%) of the 199 news articles in both liberal and conservative news outlets, suggesting that the current media creates a ubiquitously hostile environment for older adults. However, more liberal news outlets tend to produce more articles with positive messages about the older adults (p<0.05), and more conservative news outlets tend to create more content that reinforces negative stereotypes of older adults as being vulnerable and less productive (p<0.01). The high percentage of negative attitudes and the ubiquitous negative attitudes in news organizations, in spite of their political leaning, suggests that the media environment has some influence on the news content. Political biases of the organization are associated to numbers of articles with positive messages and negative stereotyping. Promoting professional development and self-regulating mechanisms in journalism could aid in reducing ageism perpetuated in the media.

# BEST PRACTICE CAREGIVING: DIFFERENCES AND GAPS AMONG DEMENTIA SUPPORT PROGRAMS FOR FAMILY & FRIEND CAREGIVERS

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Family members and friends are the main providers of care for persons living with dementia. However, dementia caregivers are at greater risk than other caregivers of experiencing negative caregiving consequences. Despite the development of evidence-based programs to support dementia caregivers, few health or social service organizations offer any of these programs due, in part, to a lack of knowledge about their availability. Best Practice Caregiving is a newly launched website where professionals can get detailed information about these programs. Data collected to develop Best Practice Caregiving are analyzed for a sample of 42 evidence-based dementia caregiving programs to describe similarities and differences among programs including gaps in assistance available from these programs. Results show 64% of programs are delivered to caregivers only while the remaining are delivered to the caregiver and/or persons with dementia. Nearly half (43%) of the 42 programs are delivered in-person, 38% by phone, with 17% delivered all or in part online. Most programs are delivered by professionals (86%) followed by trained lay leaders (40%) and self-guided (12%). Most programs (95%) provide assistance with coping with illness/caregiving and the relationship of the dyad. Fewer than half of the programs assist caregivers with issues regarding finances (45%), end-of-life care (43%), and medical care (40%). Data from 233 delivery organizations show the most common challenge was getting caregivers to accept and complete the program (86%). Delivery sites reported more success with funding the program (mean=8.2) on a scale of 1-10) than with marketing and recruiting participants (mean=6.7).

### DATABASE FOR INDICES OF AGING IN NONHUMAN PRIMATES

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The Primate Aging Database (PAD) is a multi-centered, relational database of biological variables in aging, captive monkeys and apes containing approximately one million data points for body weight, blood chemistry and hematology, for male and female subjects over time (https:// primatedatabase.org). More than forty species are currently represented, primarily chimpanzees, macaques and common marmosets. Metadata include housing environment, social context and diet. Life history information for each species is also provided. Data in PAD is gathered from various research facilities, sanctuaries and zoos. PAD has recently been extensively revamped to enhance ease of use. Tools for data visualization and analysis in multiple formats are included. PAD has been useful for exploring biomarkers of aging in primates and for examining physiological dysregulation in aging across primate species. It also provides age-specific normative values that are valuable in clinical veterinary medicine. New data are being added to PAD, including additional subjects and variables, and additional contributors are solicited. (Supported by contract HHSN2711201800025C from the National Institute on Aging to CleMetric Data Analytics and Management, LLC.)

#### ALTERED TRYPTOPHAN DEGRADATION LINKS CHRONIC INFLAMMATION TO FUNCTIONAL DECLINE & FRAILTY IN MICE AND HUMANS

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Chronic inflammation is associated with frailty and functional decline in older adults but the molecular mechanisms of this linkage are not well understood. We sought to examine metabolic and physiologic states associated with aging and frailty by analyzing the composition of metabolites in the blood of a population of community dwelling young, and older adults. Serum inflammatory cytokines and demographic and physiological covariates were collected in a set of community-dwelling adults age 20-97 (n=166). We then used LC/MS technology to profile 121 metabolites from five substance classes. Associations of the cytokines and metabolites with grip strength, walking speed, falls and outcomes were assessed in young, robust, pre-frail and frail participants. Age and frailty status positively correlated with IL6, TNFα, TNFαR1, IL1β (p<0.0001). Analysis of metabolites revealed significant alterations in tryptophan degradation pathway with aging and frailty. Among the top metabolites to correlate with age and frailty status were kynurenine (p<0.0001) and the kynurenine/tryptophan ratio (p<0.0001). The kynurenine/tryptophan ratio also tightly correlated with serum inflammatory cytokines TNFαR1 (p<0.0001) and IL-6 (p<0.0001). Higher kynurenine/tryptophan levels were

associated with weaker grip strength and slower walking speed, even after adjusting for age, gender, BMI and blood pressure. Further dissection of the pathway revealed the accumulation of 3-hydroxykynurenine, a cytotoxic and neurotoxic intermediate from the kynurenine pathway, with frailty. The increased levels of cytotoxic and neurotoxic molecules in this pathway may in part explain the link between inflammation and cognitive and physical decline in frailty.

#### ASSOCIATION BETWEEN GERIATRIC HOME VISIT AND EMERGENCY ROOM OR HOSPITAL UTILIZATION: A RETROSPECTIVE STUDY

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Homebound older adults tend to have more medical comorbidities, higher risk of mortality, and higher healthcare utilization compared to non-homebound, community dwelling older adults in the U.S. Preventative primary care home visit have been shown to reduce hospitalizations and total healthcare costs in this population. Through a retrospective study, we aim to explore characteristics associated with ED and hospital utilization in patients who have received a home visit. A total 608 subjects, 70% female and median age of 86 years, were involved, A 184 (30%) of homebound subjects were hospitalized or visited the ED in 90 days. Comparing those with hospitalization or ED and those without, there was no significant difference in sex, age, race, marital status, or advance care planning. A 74% of those with 90 day ED/hospitalization had prior ED visit within 1 year of home visit compared to 59% of those without (p=0.0004). In addition, 58% of those with 90 day ED/hospitalization had prior hospitalization within 1 year of home visit compared to 44% of those without (p=0.0015). They also had significantly higher number of total medical comorbidities (median 4.5 vs 4, p=0.02). Our study suggests that prior healthcare utilization and medical comorbidity burden may be better predictors of 90 day hospitalization or ED use in geriatric patients who have received a home visit. Advance care planning and age did not significantly differ between the two groups in our study. Further studies should be performed to validate our findings in a prospective manner.

## COPING BEHAVIORS THAT INCREASE STRESS AMONG OLDER ADULTS

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This study examined the efficacy of a series of 28 behaviors (e.g., comfort eating, attending worship services, getting a massage, etc.) in moderating the perception of stress among older adults. First, 28 individual behaviors were assessed to determine whether they buffered or exacerbated the impact of an objective stress measure (i.e., the count of stressful life events) on perceptions of stress (measured using Cohen's Perceived Stress Scale [PSS]). A full sample analysis used data from 1,000 randomly selected U.S. adults age 40 and older, but subsequent analyses explored coping behaviors for two age groups—those age 40 to 59 and those 60 and older. In the full sample analysis, multiple moderating conditions were noted including stress-buffering for worship service attendance, recreational shopping, and getting a massage. Also among the full 40+ sample, stress-exacerbation was noted

for social media use and coping by "overreacting to things." Factor analysis (employing a polychoric correlation matrix) reduced the 28 individual behaviors into 9 clusters comprised of related behaviors and representing a general coping approach. Looking within the age groups, significant stress-buffering was limited to those age 60 and older for two coping approaches—a "Self-Care and Travel" approach and an Inspirational approach (e.g., praying, attending church, etc.). For both age subgroups there was no coping approach, not even the hedonistic "blowing off steam" approach, that was found to exacerbate the impact of stressful life events on the perception of stress.

# RELATION BETWEEN ERECTILE DYSFUNCTION AND AMNESTIC MILD COGNITIVE IMPAIRMENT ACROSS TWO TIME POINTS

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Previous research by the Vietnam Era Twin Study of Aging (VETSA) demonstrated an association between erectile dysfunction (ED) and cognitive functioning. That finding supports a hypothesis that cardiovascular dysfunction may underlie both ED and problems in cognitive functioning. The purpose of the current research was to extend these findings by investigating a putative association between ED and amnestic and non-amnestic mild cognitive impairment (MCI). MCI is of particular interest because of its relationship with Alzheimer's disease and other dementing illnesses. VETSA is a longitudinal study of twins who served in the US military during the Vietnam conflict (N= 960) consisting of data collected at age 20 (enlistment), age 55 (VETSA 1), and 61 (VETSA 2). The results of the current analyses show that ED is related to both amnestic MCI (p=.032) and nonamnestic MCI (p=.009) at VETSA 1. At VETSA 2, however, the relationship between ED and non-amnestic MCI was no longer significant (p=.751) while the relationship between ED and amnestic MCI was stronger (p=.001). These results are consistent with ED and MCI sharing, to some extent, a common etiology. Vascular dysfunction, which is associated with both ED and MCI, is a plausible mechanism responsible for the observed relationship. These results also highlight the potential role that may be played by ED as an early indicator of cognitive impairment and, perhaps, pre-symptomatic AD.

### KEY DIMENSIONS OF OASIS, AN OLDER-ADULT DRIVEN MODEL OF AGING-IN-PLACE IN CANADA

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Oasis Senior Supportive Living (Oasis) is an active aging-in-place model created by older adults in a naturally occurring retirement community, such as an apartment building. The program is member-driven so that participating older residents determine the programming and services that best address their needs. The first Oasis program was established in an apartment building in Kingston, Canada and has been running for more than ten years. Preliminary evaluations of the Oasis program demonstrate that its members report feeling more socially connected, are more physically active, and have increased nutrition as a result of participation.