

Among 115,869 Veterans  $\geq 65$  years old with a history of moderate to severe musculoskeletal pain (numerical pain intensity rating  $\geq 4$ ) admitted to Veterans Health Administration hospitals in fiscal year 2013, we tested whether medication use is potentially inappropriate (defined using the 2015 Beers Criteria; categorized as central nervous system (CNS) or other drugs) according to Alzheimer's Disease and Related Dementias (ADRD) status based on ICD-9 codes. We used Poisson regression to estimate the association of the number of CNS Beers Criteria drugs (anticholinergics, antidepressants, antipsychotics, benzodiazepines, sedative hypnotics, pain medications, and opioids) and other Beers Criteria drugs according to ADRD status. The mean age of the cohort at the index hospital admission was 74.5 (SD 8.2), with 19.0% having ADRD and a Charlson comorbidity index of  $3.9 \pm 3.0$ . After adjusting for age, sex, race/ethnicity, marital status, body mass index, 16 diagnostic criteria for pain and chronic conditions, mental health conditions and use of other system Beers Criteria drugs, we found that the mean number of CNS Beers Criteria drugs were 25% higher among Veterans with ADRD, with an adjusted risk ratio (aRR) of 1.25 (95% CI 1.23, 1.27;  $P < .0001$ ). On the other hand, the mean number of other Beers Criteria drugs appeared to be 2% lower among ADRD group compared with inpatients without ADRD (aRR: 0.98 (95% CI: 0.97, 0.99),  $p < 0.004$ ). Clinicians need to be aware of potential side effects of using CNS Beers drugs in people with ADRD and whether there are alternatives to their use.

#### PAIN, AFFECT, AND OBJECTIVE ACTIVITY LEVELS IN OLDER ADULTS WITH OSTEOARTHRITIS

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This research examined the relation between physical activity, pain, and mood among older adults with osteoarthritis (OA). Physical activity is associated with long-term maintenance of function in persons with chronic pain (Dunlop et al., 2014), but less is known about the association between objective measures of activity and transient mood states. Therefore, we captured the activity and mood levels of 218 older adults with knee OA over a seven-day period. Wrist and waist accelerometers captured small and large motor movements. Self-reported momentary pain and affect were collected through phone calls four times daily. We examined average and peak activity levels over the 4-hour windows between self-reports. Cross-sectionally, there was no association between momentary pain and activity. Average large motor movement was positively associated with positive affect and negatively associated with negative affect. Analyses revealed one association between affect and average previous activity; small motor movements predicted greater positive affect. Peak levels of both movements predicted greater positive affect, but only peak wrist activity predicted negative affect. Peak small motor movement at the previous call was associated with both positive and negative affect. These results provide insight into the unique contributions of small and large motor activity to mood and pain states. It appears that average large motor movements and prior small motor

activity may have the greatest impact on momentary affect. Further study of distinct activity types and mood will be important for understanding and improving the quality of life among individuals diagnosed with OA (Supported by R01-AG041655).

#### CAN HEART DISEASE SELF-MANAGEMENT EDUCATION ALSO REDUCE PAIN INTERFERENCE IN AFRICAN AMERICAN OLDER ADULTS?

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Many older adults with heart disease, especially those from vulnerable populations, live with chronic pain. Self-management strategies for reducing cardiovascular risk (e.g., physical activity, stress reduction) are also recommended for management of chronic pain. It is not known, however, whether self-management education focused on heart health has a beneficial "side effect" on pain-related outcomes. We explored this possibility using data from a randomized controlled trial ( $n=405$ ) of Take Heart, a group intervention adapted for low-income, African American adults 50 and over with heart disease or significant risk factors. We first assessed the sample prevalence of high-impact chronic pain; i.e., substantial pain-related disability in one or more life domains (National Pain Strategy, 2016). Next, we assessed whether participation in Take Heart resulted in decreased pain interference (PROMIS-29). One-third of participants ( $n=131$ ) met criteria for high impact chronic pain. Mean pain interference T-score in the entire sample at baseline was 58.1 (SD=9.9), indicating a score one standard deviation greater than population average. Compared to controls, intervention participants had a greater, but non-significant, improvement in pain interference (0.7 vs. -0.8;  $p=.11$ ). Overall, findings demonstrate that African American adults with cardiovascular conditions have a high burden of comorbid pain. This pain was not greatly improved by an intervention that taught key chronic disease self-management skills but did not address pain specifically. Future research can test whether incorporating pain-management content into heart disease education has a stronger impact on improving pain outcomes -- which may, in turn, promote adherence to behaviors to reduce cardiovascular risk.

#### IS THERE A RELATIONSHIP BETWEEN PAIN AND FEAR OF FALLING IN OLDER ADULTS LIVING IN LONG-TERM CARE FACILITIES?

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Fear of falling is common in older adults and it is associated with multiple factors such as gait and balance issues, difficulties in activities of daily living, visual impairment, and frailty. Unfortunately, fear of falls increases the risk of falls as opposed to protect from falls. Pain can impair mobility, affects activities of daily living, and may also be associated with fear of falling but no studies have evaluated

this potential association. The objectives of this study were to evaluate if there was an association between pain and fear of falling in older adults living in long-term care facilities. One hundred and eight older adults living in long-term care facilities participated in the study. The mean age was  $79 \pm 7$  years, and 65% of the participants were women. The participants completed the Geriatric Pain Measure (GPM) questionnaire for multidimensional pain assessment (scores range from 0 to 42), and the Falls Efficacy Scale International (FES-I) for fear of falling assessment (scores range from 16 to 64). The data was analyzed using multiple linear regression. Forty-five percent of the participants had chronic pain ( $\geq 3$  months) and 18% had acute pain ( $< 3$  months). Pain scores were  $29 \pm 31$ . Pain was associated with an increase of 3 to 7 points (out of 64 max) in the FES-I. The prevalence of pain in long-term care residents was high, and pain was associated with increased fear of falling.

#### DEVELOPING A PAIN IDENTIFICATION AND COMMUNICATION TOOLKIT FOR FAMILY CAREGIVERS OF PERSONS WITH DEMENTIA

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Best practice guidelines have emphasized the importance of routine pain assessment of older persons with dementia (PWD), yet pain remains severely underdetected and undermanaged in this population. Training family caregivers in observational pain assessment and subsequent communication of the assessment results to a healthcare provider has the potential to help improve pain management among PWD. The goal of this presentation is to describe the approach to developing, refining, and pilot testing the Pain Identification and Communication Toolkit (PICT), a novel intervention to help family caregivers recognize pain symptoms in PWD and communicate those symptoms to healthcare providers. Guided by self-efficacy theory and empirical research on dementia and pain communication, this presentation will detail the approach to developing the PICT intervention manual and delineate its major components, including modules that prepare caregivers to: a) recognize and differentiate pain from dementia symptoms, b) administer an observational pain assessment tool, c) communicate effectively about pain symptoms, and d) plan steps to take when pain is detected. The presentation will report results from the process by which preliminary versions of the PICT manual were refined, including iterative field-testing with a sample of racially and ethnically diverse caregivers of community-dwelling PWD and healthcare providers. Results suggest that the development of PICT represents a useful step in addressing the underdetection and undermanagement of pain in PWD, and can pave the way for future intervention research on caregivers' initiation of pain-related communication with healthcare providers.

#### CHRONIC PAIN AND ASSOCIATED RISK OF COGNITIVE IMPAIRMENT AMONG MIDDLE-AGED AND OLDER ADULTS

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GSA 2019 Annual Scientific Meeting

Chronic non-cancer pain (CNCP) is an emerging health issue among the older population. Not only did the CNCP prevalence increase gradually in past decades, but also it may cause difficulties in cognitive processing and social and emotional functioning. However, evidence for the associations between CNCP and incident mild cognitive impairment (MCI) and Alzheimer's disease and related dementias (ADRDs) is inconsistent and insufficient. Using the administrative claims data from health insurance companies from January 2007 to December 2017, this prospective cohort study investigated the impact of CNCP on the risks of developing MCI and ADRDs among adults aged 50 and older. To reduce potential selection bias, the propensity-score matched cohort design was applied for selecting comparable CNCP and non-CNCP patients at the beginning of the follow-up. Time-dependent Cox proportional-hazards regression models were conducted to estimate the hazard ratios (HRs) of incident MCI/ADRDs, adjusting for baseline sociodemographics and time-dependent medical conditions. Of 236,782 patients with/without CNCP, 342 individuals (0.14%) developed MCI and 1,183 patients (5.0%) had been diagnosed with one type of ADRDs during the follow-up. After adjusting confounders, CNCP patients had a 42% increased MCI risk (HR=1.42; 95% CI=1.14-1.76) and a 20% increased ADRDs risk (HR=1.20; 95% CI=1.07-1.34) relative to non-CNCP patients. Our findings indicate that CNCP is associated with incidences of MCI and ADRDs. Early diagnosis of CNCP and CNCP management may prevent cognitive impairment among middle-aged and older adults. Future studies are warranted to explore the potential effects of pain treatments on restoring cognitive function of CNCP patients.

### SESSION 3370 (POSTER)

#### SUCCESSFUL AGING

##### I GOT THIS! SUCCESSFUL AGING THROUGH THE MAINTENANCE OF AUTONOMY

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As America ages, an increased interest has been placed on understanding the development and maintenance of autonomy in later life. This is of particular importance given the impact of autonomy on vitality, well-being, and mood within older adults (Warner et al., 2011). However, the research examining which aspects of autonomy directly impact successful aging remains underexplored. As such, the current study utilizes the Functional Autonomy Measurement System (SMAF) to better understand which facets of autonomy promote life satisfaction in older adults. Data included assessments of the Functional Autonomy Measurement System and data was derived from the Survey of Midlife in the US Database (MIDUS 3). Participants were primarily White/Caucasian (88.7%) and female (54.0%); with a mean age of 63.64 years (SD=11.35). A series of hierarchical multiple linear regressions revealed that higher levels of Mental Functions predicted increased life satisfaction scores in models adjusted for age, sex, race, marital status, and education ( $F=54.152, p<0.001$ ) and