

### KEEP YOUR HOPES UP: AN EXAMINATION OF RACIAL DIFFERENCES IN THE ASSOCIATION BETWEEN HOPE AND PAIN

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Hope has been associated with increased pain tolerance (Snyder et al., 2005) and has been incorporated in interventions targeting chronic pain (Howell et al., 2015; Katsimigos et al., 2020). Research suggests that African Americans with osteoarthritis (OA) pain experience greater pain severity and disability compared to non-Hispanic White individuals (Vaughn et al., 2019). Although the literature is limited, there is some evidence to suggest racial/ethnic differences in hope (Chang & Banks, 2007). The current study examined race as a moderator of the association between hope and pain in a sample of older adults. Experience sampling (ESM) data was used from a multi-site study examining non-Hispanic White and African American individuals with knee osteoarthritis (OA). Participants completed the Adult Hope Scale (Snyder et al., 1991) during baseline interviews and self-reported momentary pain during 28 ESM calls. Multilevel models revealed a significant interaction between hope and race ( $p = .04$ ). Specifically, greater hope was associated with decreased momentary pain, and this association was stronger for African American compared to non-Hispanic White individuals. Results suggest that high levels of hope may be particularly protective for African American chronic pain patients. These findings can help inform existing and future interventions focused on enhancing hope in chronic pain populations. (Supported by AG041655, P. Parmelee and D. Smith, Co-PIs)

### LONELINESS PREDICTS DEVELOPMENT OF PAIN, FATIGUE, AND DEPRESSION IN OLDER ADULTS

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Pain, fatigue, and depression form a well-recognized symptom cluster that is posited to have a shared mechanism. It is possible that chronic psychosocial stressors such as loneliness may impact the central nervous system and immune system, potentially leading to symptom cluster development. Loneliness is an increasingly recognized type of psychosocial stress, especially among older American adults. Thus, we investigated whether loneliness increased risk of developing the symptom cluster of pain, fatigue, and depression over time. Using Health and Retirement Study data from 2006 – 2016, we examined self-respondents  $\geq 50$  years-old for the presence of co-occurring pain, fatigue, and depressive symptoms surpassing threshold levels (ie., the symptom cluster). Loneliness (measured by the 3-item UCLA Loneliness Scale) at baseline was used as the predictor of interest. Of the total sample ( $n=11,766$ ),  $n=5,956$  (50.6%) had up to two complete sets of follow-up symptom cluster measurements. Logistic regression models for longitudinal data were fitted using a

generalized estimating equation (GEE). After adjusting for demographic and clinical variables, loneliness strongly predicted the development of the symptom cluster (adjusted OR=3.16 (95% CI 2.77, 3.61)) as well as each component symptom (pain adjusted OR=1.54 (95% CI 1.42, 1.67); fatigue adjusted OR=1.88 (95% CI 1.74, 2.03); depression adjusted OR = 3.87 (95% CI 3.55, 4.21). Further research should investigate whether interventions targeting loneliness or other psychosocial stressors may have a role in prevention of this symptom cluster.

### PAIN INTERFERENCE AND CONSCIENTIOUSNESS IN OLDER ADULTS

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Pain interference increases with age and occurs when pain interrupts daily activities. Individuals vary in their amount of interference at a given level of pain. Conscientiousness is a personality trait characterized by diligence, perseverance, and goal-directedness, and is associated with fewer unhealthy behaviors and better health, including less pain and fewer functional limitations. This study tested three hypotheses on the relationships between pain, Conscientiousness, and pain interference among community-dwelling older adults ( $N=210$ ) in a longitudinal study. At semi-annual interviews, participants reported their pain and interference. Conscientiousness was measured at baseline and follow-up. Multilevel models tested the between- and within-person relationships among study variables. Greater pain predicted more interference (person:  $\gamma_{01}=.541$ ,  $SE=.042$ ,  $p<.0001$ ; visit:  $\gamma_{10}=.495$ ,  $SE=.014$ ,  $p<.0001$ ) but higher Conscientiousness decreased interference ( $\gamma_{02}=-.156$ ,  $SE=.064$ ,  $p<.025$ ). There was an interaction between Conscientiousness and pain: At higher levels of pain, older adults higher in Conscientiousness experienced much less interference than their less conscientious peers ( $\gamma_{11}=-.199$ ,  $SE=.089$ ,  $p<.025$ ). Older age at baseline predicted a greater decrease in Conscientiousness over the study period ( $b=-0.013$ ,  $t(91)=-2.07$ ,  $p<.05$ ). Conscientiousness reduces the negative impact of pain on daily function. This protective effect may reflect perseverance and commitment to valued activities, consistency with proactive health behaviors, or other attitudes and behaviors that reduce the likelihood of psychosocial sequelae of pain. Overall, the sample decreased in Conscientiousness over time; however, the direction and amount of change varied considerably. These results refine existing knowledge of personality in old age and implicate personality factors as a potential target for pain management.

### SELF-REPORTED PAIN AND SYMPTOMS IN COMMUNITY DWELLING OLDER ADULTS: RESULTS FROM THE STUDY OF AGING II

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Pain is a common concern for community-dwelling older adults. There are a range of symptoms that may occur with

pain that can be recurring and severe, which are associated with decreased quality of life. This study aims to characterize overall symptom load by utilizing the Brief Symptom Scale in community dwelling older adults who experience mild to severe pain. Data were extracted from the UAB Study of Aging II, a prospective, population-based study of mobility among community-dwelling older adults 75 years and older. Self-reported pain in the past 4 weeks and symptoms (e.g., pain, tired, nausea, depression, anxiety, shortness of breath) were included. The SPSS version 27.0 statistical package was used for analysis. Sixty-six percent were Non-Hispanic White, 58% were female, 40% lived in housing designed especially for the disabled, 49% were widowed, and 30% had a High School degree or GED. The mean age was 81 years (standard deviation 4.8). Of interest, over one third of the sample (38.1%) experienced moderate to severe pain, upper back pain was the most common area where pain occurred and feeling tired was the most common symptom. As the aging population continues to increase, so will the prevalence rates for pain. Findings suggests older adults with pain have multiple concomitant symptoms. Because the elderly represents a fragile and large group of the population, it is important to pay close attention to these symptoms.

#### THE MODERATING ROLE OF DEPRESSION ON MOMENTARY PAIN-AFFECT ASSOCIATIONS IN OSTEOARTHRITIS

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Previous research has found a reciprocal relationship between pain and depression, in which each influences the severity of the other (Chou, 2007; Hawker et al., 2011, Kroenke et al., 2011; Schieir et al., 2009). Studies have found that depressed individuals exhibit stronger pain-mood associations than never-depressed individuals (Conner et al., 2006; Tennen et al., 2006). The current study investigated main and interactive effects of depressive symptoms on the momentary associations between pain and mood. Experience sampling (ESM) data was used from a multi-site study examining individuals with knee osteoarthritis (OA). Participants completed self-report measures of global depression and momentary pain, negative affect (NA), and positive affect (PA). Cross-sectional associations among momentary pain and affect were examined in a series of hierarchical multilevel models that nested the 28 ESM calls (Level 1) within participants (Level 2). A parallel set of multilevel models tested lagged associations among momentary variables. Depression significantly moderated the contemporaneous ( $p < .001$ ) and lagged ( $p < .003$ ) associations between pain and NA, suggesting that depression intensifies the momentary pain-NA linkage. There were no significant interaction effects for PA. These findings extend existing knowledge by illustrating how depressive symptoms influence the everyday experience of OA pain and its impact on affective well-being. (Supported by AG041655, P. Parmelee and D. Smith, Co-PIs)

## Session 9415 (Poster)

### Personality

#### A COORDINATED ANALYSIS EXAMINING THE ASSOCIATION BETWEEN PERSONALITY TRAITS AND COGNITIVE DISPERSION

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Cognitive dispersion is the degree of within-person variation in performance across cognitive tasks at the same testing occasion. Existing literature indicates that cognitive dispersion may be an early marker of poor brain health, dementia and mortality. Limited research, however, has examined individual differences in cognitive dispersion. Although personality traits are associated with individual differences in cognitive functioning, no research has examined personality and cognitive dispersion. In this project, we execute a pre-registered, coordinated analysis of seven diverse, international longitudinal studies of aging (Ntotal=33,581; mean age range=56.4-71.2) to investigate the extent to which the Big Five personality traits are associated with cognitive dispersion. For methodological approach, see [osf.io/wrnjq/](https://osf.io/wrnjq/). Cognitive dispersion scores were derived from cognitive test results, and independent linear regression models were fit independently in each study to examine personality traits as predictors of dispersion scores, adjusting for mean cognitive performance and socio-demographics (age, sex, education). Results from individual studies were synthesized using random-effects meta-analyses. Results revealed minimal evidence for associations between cognitive dispersion and personality traits in independent analyses or in meta-analyses. Based on the meta-analytic estimates, only higher levels of openness were associated with greater cognitive dispersion. Mean cognitive scores were negatively associated with cognitive dispersion across the majority of studies, indicating that individuals with higher mean performance had less dispersed cognitive scores. Our study contributes to the replicability and transparency efforts characteristic of open science by pre-registering our study and drawing on the collaborative network of the Integrative Analysis of Longitudinal Studies of Aging and Dementia (IALSA).

#### IMPACT OF PERSONALITY FEATURES AND INTERPERSONAL PROBLEMS ON ANXIETY AMONG OLDER ADULTS

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