

## SESSION 2420 (POSTER)

### SLEEP

#### PSYCHOSOCIAL FACTORS ASSOCIATED WITH SLEEP QUALITY AND DURATION AMONG OLDER ADULTS WITH CHRONIC PAIN

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Sleep complaints are common among older adults with pain. Due to the risk of side effects, sleep medications are not recommended. Little is known about the association between psychosocial factors and sleep, but further awareness could support non-drug strategies for poor sleep. Our objective was to determine prevalence of self-reported poor sleep and duration among older adults with pain; and examine associations of positive psychosocial characteristics on sleep. This study analyzed surveys and claims from older adults with AARP® Medicare Supplement plans insured by UnitedHealthcare. Participants were 65+ with diagnosed back pain, osteoarthritis and/or rheumatoid arthritis; 12-months plan enrollment. All participants responded to a survey in May 2018 assessing sleep quality. Prescriptions were determined from claims. Propensity weighting was used to adjust for non-response bias. Results were weighted to generalize to those with pain. Multivariate logistic regression was used to evaluate associations. Short sleep duration was most common (39%), followed by poor quality (22%), and long duration (9%). Higher resilience and diverse social networks were associated with good quality and duration. Strongest associations with bad quality and short duration were stress, depression and sleep medications. Psychosocial factors were strongly associated with sleep quality and duration among older adults with pain. Results underscore the importance of social factors on sleep and need for non-drug sleep strategies.

#### ELECTRONIC USE AND SLEEP, SURPRISING BEDFELLOWS: RESTFULNESS EFFECTS OF ELECTRONICS USE PRIOR TO BEDTIME FOR THE 40-PLUS

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Getting restful sleep is essential to well-being but stress and poor sleep habits may make sleeping through the night challenging. This research explored life event stressors and pre-sleep activities among 2,464 randomly selected Americans age 40 and older (using Ipsos' KnowledgeNetwork panel) to determine their joint effects on mental well-being. Respondents reported how often they engaged in twelve individual behaviors within an hour of going to sleep. These behaviors (found to be inter-correlated) were combined using EFA into four factors representing levels of engagement in each of four classes of pre-sleep activities: pre-sleep electronics use

(e.g. texting/e-mail before bed), deep relaxation activities, reliance on sleep-aids, and "nightowl" behaviors (i.e., snacking). Counter to expectations, only electronics use had significant conditional effects on the path between a life events stressor index (a count of current, potentially stressful life events) and scores on the positively-framed Warwick Edinburgh well-being scale (WEMWBS). How often one sleeps through the night also had unexpected effects in a conditional path analysis. A somewhat-involved relationship emerges between each of the theoretically-relevant measures. First, the negative impact of stress is moderated by sleeping through the night. Sleeping through the night is, counter to previous studies on electronics use and sleep, mediated by the use of electronics prior to sleep. We propose that mechanisms (such as the nature of back-lighting used in electronics) that hamper restfulness may be offset by relaxation effects or by setting one's ducks in a row by texting/emailing before going to sleep.

#### VALIDATION AND CLINICAL USEFULNESS OF A SLEEP HEALTH SCALE IN LATE LIFE

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Sleep health is a multidimensional construct of sleep and wakefulness which can be conceptualized as the opposite of sleep dysfunction. Assessing sleep health is particularly relevant among older adults who disproportionately experience sleep-related adverse outcomes. Yet, empirically-validated sleep health scales are lacking. The objectives of the present study were to assess the psychometric properties of a newly designed measure of sleep health (RU-SATED) among older adults and examine the association between sleep health and well-being in late-life. Data included 773 older adults ( $M=67.68$ , 52% female) who completed an online survey of their sleep and health. Respondents completed the six-item RU-SATED scale, the Insomnia Severity Index (ISI), and the Satisfaction with Life Scale (SWLS). Sleep health scores ranged from 1 to 12, ( $M=8.13$ ,  $SD=2.68$ ), with higher scores indicating better sleep health. Exploratory factor analysis revealed a one-factor model. Confirmatory factor analysis showed that a one-factor model was associated with model fit indices in the adequate range. Additionally, a hierarchical linear regression indicated that sleep health was positively associated with life satisfaction ( $\beta=.25$ ,  $p<.001$ ) and accounted for significant variance in life satisfaction above and beyond insomnia severity ( $\Delta R^2=.04$ ,  $p<.001$ ). In conclusion, RU-SATED appears to be a valid measure of sleep health among older adults with potentially useful clinical applications. Future research would benefit from examining the association between sleep health and other relevant health outcomes, as well as assessing the prospective ability of sleep health to predict relevant outcomes above and beyond traditional measures of sleep quality or insomnia.

#### REDUCING DYSFUNCTIONAL BELIEFS ABOUT SLEEP PROVIDES LONG-TERM BENEFIT IN OLDER ADULTS WITH INSOMNIA

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Cognitive behavioral therapy for insomnia (CBTI) is recommended as first-line treatment in older adults. Changing dysfunctional beliefs and attitudes about sleep is an important component of CBTI, but the long-term impact of these changes are unknown, particularly in older adults. Methods involved secondary analyses of data from a large randomized controlled trial comparing CBTI (provided in 5 weekly sessions) to sleep education control, among older veterans with insomnia (N=159, mean age 72.2 years, 97% male, 79% non-Hispanic white). The purpose was to examine whether changes in a validated scale of Dysfunctional Beliefs and Attitudes about Sleep (DBAS) with CBTI treatment (baseline to post-treatment) was associated with later changes in self-reported sleep (post-treatment to 6 months follow-up). Sleep measures included Pittsburgh Sleep Quality Index (PSQI), Insomnia Severity Index (ISI), Epworth Sleepiness Scale (ESS) and 7-day sleep diary measures. Analyses compared the slope of change in DBAS (baseline to post-treatment) between CBTI and control with respect to the slope of change in sleep outcomes (post-treatment to 6-months). Compared to controls, the CBTI group had stronger associations between DBAS improvement (baseline to post-treatment) and subsequent PSQI improvement (post-treatment to 6-months) (difference in slopes=1.3, 95% CI=[.52,2.1], p=0.001). This pattern of significant results was also found for ISI (difference in slopes=1.8, 95% CI=[.58,3.0], p=0.004) and ESS (difference in slopes=1.0, 95% CI=[.25,1.7], p=0.009). Slopes were not different for sleep diary measures. These findings suggest that changing dysfunctional beliefs and attitudes may continue to confer sleep benefits well after completion of CBTI in older adults.

#### RELIGIOUS ATTENDANCE AND SLEEP DISTURBANCE IN OLDER MEXICAN AMERICANS

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Although numerous studies have shown that religious involvement is associated with better health across the life course, researchers have virtually ignored possible links between religious involvement and sleep-related outcomes. Building on previous work, we tested whether religious attendance was inversely associated with sleep disturbance among older Mexican Americans. We also assessed whether depressive symptoms could mediate or explain any of the inverse association between religious attendance and sleep disturbance. Relevant hypotheses were tested using ordinary least squares regression and conditional process mediation analysis of cross-sectional data collected from the original cohort of the Hispanic Established Population for the Epidemiologic Study of the Elderly (H-EPESE). The baseline H-EPESE (1993-1994) included a probability sample of 3,050 Mexican Americans ages 65 and older. Due to missing

data on our focal variables, our final analytic sample included 2,323 respondents. Regression models show that religious attendance is inversely associated with depressive symptoms and sleep disturbance, even with adjustments for smoking, drinking, body mass, chronic disease, mobility, marital status, living arrangements, family engagement, secular group participation, social support, age, gender, immigrant status, language proficiency, education, household income, and religious affiliation. Mediation analyses also indicate that depressive symptoms fully mediate the association between religious attendance and sleep disturbance. These findings contribute to previous work by showing that regular religious attendance may protect against sleep disturbance by promoting mental health in an understudied population of older Mexican Americans. The importance of religious involvement is supported by the fact that secular group participation was unrelated to sleep disturbance.

#### RUMINATION, DEPRESSIVE SYMPTOMS, AND SLEEP QUALITY: SOCIAL SUPPORT AS A BUFFER

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Rumination, the act of dwelling on negative, unwanted thoughts, can stoke depression and disrupt sleep, both of which may threaten older adults' well-being. In line with a support buffering hypothesis, a previous study of younger and middle-aged adults found that social support mitigated the positive association between rumination and negative mood. To extend this research, we distinguished between spousal and family/friend support as moderators of rumination's links both to depressive symptoms and sleep quality among older adults. Data came from a sample of 128 adults who were, on average, 77 years old at study onset. Rumination was measured via the Rumination-Reflection Questionnaire. Perceived support was measured by items utilized in multiple nationally representative studies of older adults. Depressive symptoms were measured via the NIH PROMIS measure, and sleep quality was measured via items from the Pittsburgh Sleep Quality Index. Results indicated that support from family/friends (but not spouses) buffered the positive association between rumination and depressive symptoms, even after controlling for depressive symptoms six months prior. Conversely, when sleep quality served as the outcome, support from spouses (but not family/friends) buffered the negative association between rumination and sleep quality, even after controlling for sleep quality six months prior. Findings highlight the potential for specific sources of social support to buffer different consequences of rumination on older adults' health and well-being.

#### OBJECTIVE AND SUBJECTIVE SLEEP DURATION AND ACTIVITY LEVEL IN OLDER ADULTS WITH MILD DEMENTIA

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