unpredictable and overloading) the following day. This study examined whether the sleep—stressor relationship is stronger for individuals with children than those without. Participants were 61 oncology nurses (92% female). Participants completed a background survey that assessed sociodemographic and work characteristics. Using 14 days of ecological momentary assessments, participants reported their sleep characteristics daily upon waking. Three times daily, they also reported whether they experienced any stressors and how severe those stressors were. Multilevel modeling was used to assess whether the sleep—stressor relationship was stronger in nurses with children than those without. After controlling for sociodemographic covariates, poorer sleep quality was associated with more severe stressors. This daily association was moderated by the presence of children (B=-16.89, p<.01); the association was apparent for individuals with children (B=-5.74, p<.05), but not for those without. The daily association for sleep quality and stressor frequency also differed by the presence of children (B=0.22, p<.01), although the slope for individuals without children did not reach the statistical significance. These findings suggest that individuals with children are at risk for experiencing a stronger linkage between poorer sleep and greater stressor severity. Improving sleep health among adults with children is critical for stress management. Future studies should examine whether age of children or number of children further influences the sleep—stressor relationship.

### DAILY ASSOCIATION BETWEEN SLEEP AND STRESSORS: ROLE OF PERSONALITY TRAITS

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Poor sleep is associated with more stress across adult populations. The sleep—stress relationship is particularly important in nurses who are vulnerable to daily work-related stressors and poor sleep. Nurses with certain personality traits may be more vulnerable, however, the role that personality plays in the sleep-stress relationship has not previously been examined with lack of research in nurses. We examined how personality moderated the association between sleep characteristics and the perception of daily stressors in nurses. Participants were 61 oncology nurses who responded to a background survey that included a personality measure and completed 14 days of ecological momentary assessments. Each morning, participants reported sleep characteristics (i.e., perceived sleep sufficiency, sleep duration). Three times daily, participants reported their stressor experiences. We used multilevel models adjusting for sociodemographic characteristics, work shift, and work day. Results showed that on average across 2 weeks, participants with higher sleep sufficiency (β=21.06, p<.05) and longer sleep duration (β=-11.80, p<.05) reported lower stressor severity. Agreeableness moderated the sleep duration—stressor severity association (β=25.07, p<.01), such that longer sleep duration was associated with lower stressor severity for participants with lower agreeableness (β=-17.39, p<.01), but not those with higher agreeableness (β=5.66, p>.05). These findings indicate that the protective nature of longer sleep duration on stressful experiences may not occur in nurses high in agreeableness. Nurses high in agreeableness may take on more responsibilities, exposing themselves to more daily stress. Thus, nurses who are high in agreeableness may be a good target population for stress-reduction interventions.

### DAILY RELATIONSHIPS BETWEEN PHYSICAL ACTIVITY AND SLEEP: DIFFERENCES BETWEEN SUBJECTIVE AND OBJECTIVE MEASURES

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Although there is evidence that physical activity (PA) and sleep are related, it is unclear which aspects of these multidimensional constructs are involved. Many have examined differences in PA and sleep between persons, but few have tested daily associations within persons. The present study examined sleep (duration; hours spent asleep, WASO; wake after sleep onset, latency; time to fall asleep) and PA (total and intensity) over 7 days, using both a self-reported diary (subjective) and an ActiWatch (objective). Healthy adults between 34 and 83 came to University of Wisconsin, Madison to participate in the Midlife in the United States (MIDUS) Biomarker study (N=436, Mage: 56.92, SDage: 11.5). Subjective and objective measures showed differential relationships; subjective duration was higher, and latency was lower than objective measures. Some age differences were also found; older adults reported more WASO than middle-aged adults, but their WASO was similar according to actigraphy. Multilevel models revealed that total PA and intensity significantly predicted subjective and objective sleep measures, controlling for age, sex, and other demographic variables. More active participants had shorter sleep durations, WASO, and latency. Within-person analyses revealed that on days one is more active than average, sleep duration is shorter with less WASO across age. Although the negative relationship between PA and sleep duration was unexpected, it is possible that because more active individuals wake less during the night, they may need fewer hours of sleep because their sleep is more restful. Discussion will focus on possible mechanisms involved in linking PA and sleep.

### DAY-TO-DAY VARIABILITY IN LONELINESS: ASSOCIATIONS WITH AGE, SLEEP DURATION, AND HEALTH SYMPTOMS

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Research has suggested that high day-to-day intrindividual variability (IVV) in positive emotions has negative impacts on well-being. Little research has explored the impact of IVV in negative emotions, particularly loneliness - a known risk-factor for poorer health in old age. With an estimated 25-29% of older adults reporting feelings of loneliness, it is imperative to examine age differences in the presence of IVV in loneliness and how this relates to sleep and physical health symptoms. Using data from the National Study of Daily Experiences (N=2022, Mage=56.24, Range=33-84), we examined whether (1) age was associated with IVV in loneliness, (2) greater IVV in loneliness was associated with lower average sleep duration and more physical health symptoms, and (3) age differences moderate the extent to which IVV in loneliness impacted the previous outcomes. Preliminary results indicated that age was associated with decreased IVV in loneliness (p<.001). Additionally, increased...
IIIV in loneliness and age was associated with significantly fewer physical health symptoms (ps<.05) but was not reliably associated with sleep duration. Finally, age and IIIV in loneliness did not interact to predict either physical health symptoms or sleep duration. Older participants diminished IIIV in loneliness – and lack of differential vulnerability to IIIV in loneliness – is consistent with theoretical models of older adults’ socioemotional regulation (i.e., socioemotional selectivity theory). Contrary to expectations, a higher variability in loneliness was related to lower average physical health symptoms. Discussion will focus on the meaning and importance of IIIV in loneliness for older adults’ health.

DOES POOR SLEEP QUALITY PREDICT FUNCTIONAL LIMITATIONS?

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Previous work from our group (Friedman, 2016) linked sleep complaints to declines in mobility and risk of incident limitations over a 9-10 year follow-up among middle-aged and older adults. While these results suggest that poor sleep might undermine functional capacity, the self-report nature of the data leaves the robustness of this association unclear. The current study addressed this uncertainty by examining links between sleep and mobility limitations using subjective and objective assessments of both. Data were from the Midlife in the United States (MIDUS) study: the biomarker sub-sample (N = 664) from the original cohort (collected 2004-2006) and the Refresher cohort (collected 2011-2013). Sleep was assessed using the Pittsburgh Sleep Quality Index (PSQI; subjective) and 7 consecutive days of actigraphy (objective). Functional capacity was assessed by self-report of limitations and measured gait speed, grip strength, and chair stands. In linear regression models adjusting for demographic and health factors, lower PSQI scores (better sleep quality) predicted fewer reported limitations, stronger grip, quicker gait, and faster chair stands (all p<.01). Of the objective sleep metrics, time to fall asleep and time spent awake during the night predicted more self-report limitations, weaker grip (latency only), and slower gait speed and chair stands. These results extend our prior work by showing a) subjective sleep is linked to measured as well as self-reported physical function, and b) objective assessments of sleep predict reduced physical function, albeit to a lesser extent. They also brighten the spotlight on sleep as a key health determinant in older adults.

EMOTIONAL TONE OF DREAMS AND DAILY AFFECT

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One theoretical function of dreams is emotion processing. However, few studies have examined how daily emotions in waking life (i.e., daytime affect) affect the emotional tone of dreams (i.e., dream affect) that night, and vice versa. This study examined daily bidirectional associations between dream affect and daytime positive and negative affect. Participants were 61 nurses who completed 2-weeks of ecological momentary assessments. If participants remembered the previous night’s dreams (n_participants=50; n_days=268), they reported the dream’s emotional tone upon waking (‘0’=very negative to ‘100’=very positive). Participants also responded to a short-version of the Positive and Negative Affect Scale three times/day. Multilevel modeling was used to evaluate two temporal directions (dream affect→daytime affect or daytime affect→dream affect) at the within- and between-person levels. After adjusting for sociodemographic covariates, at the within-person level, daily positive affect was higher and daily negative affect was lower than usual on days following more positive dream affect (β=0.19, p<.05; β=0.26, p<.05, respectively). When we added the other temporal direction, today’s positive or negative affect was not associated with dream affect that night. At the between-person level, nurses who reported more positive dream affect also reported more positive daytime affect (β=0.52, p<.01), but not less negative daytime affect (β=0.34, p>.10). Findings suggest that dream affect is predictive of daily affect, but not the other way around. Future studies could further examine if emotions closer to sleep are more strongly associated with dream affect to motivate more precisely-timed affect interventions.

FACTORS ASSOCIATED WITH PERCEIVED STRESS AMONG DEMENTIA CAREGIVERS WITH POOR SLEEP

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Poor sleep among family caregivers of individuals with dementia is associated with higher levels of caregiver stress. Modifiable factors that increase risk of stress among caregivers with poor sleep are targets for intervention. This analysis aimed to identify factors associated with greater caregiver stress among caregivers with poor sleep. Baseline data from an ongoing trial of a dyadic sleep intervention program for individuals with dementia and their caregivers with poor sleep quality (defined by Pittsburgh Sleep Quality Index total score > 5; N=21 dyads; mean age 70.8± 11.1 for caregivers, 80.5±8.3 for care-recipients) were analyzed. Caregiving factors included Zarit Burden Index (ZBI) and SF-12 Short Form Health Survey (SF-12v2). Care-recipient factors included Mini-Mental State Examination (MMSE) and Revised Memory and Behavior Problems Checklist (RMBPC). Stress was measured with the Perceived Stress Scale (PSS). Analyses included Pearson correlations and t-tests. Caring for multiple care-recipients (n=5; 24.8±2.7) was associated with higher (worse) PSS scores than caring for one care-recipient only (n=16; 19.6±3.7, p=0.011). Caregivers with higher PSS also had a significantly higher ZBI score (r=0.53, p=0.015), higher distress related to care-recipient behaviors on the RMBPC (r=0.57, p=0.009) and worse mental health on the SF-12v2 (r= -0.47, p=0.037). PSS was not associated with care-recipient MMSE. These findings suggest that caregivers with poor sleep who care for multiple care-recipients may be at higher risk of stress. This work also identified potential targets (e.g., caregiver burden, mental health, distress related to care-recipient behavior) for reducing stress in this population.