

be applied to future challenges in supporting the well-being of residents as they negotiate their residential spaces.

PLANNING FOR SENIORS HOUSING IN CHANGING CITIES: LESSONS LEARNED FROM A CROSS-NATIONAL EXCHANGE

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Across North America, a growing number of older adults have a core housing need and lack access to affordable, suitable or adequate housing. Although federal, state/provincial and local backdrops vary across Canadian and American contexts, seniors' housing providers in both countries face similar challenges and must develop innovative policy and program responses to help older adults age in place. We hosted an international seniors' housing conference to create a platform for cross-national collaboration among multidisciplinary seniors housing experts. This event offered an opportunity to exchange best practices, emerging research, and policy solutions, and establish a set of shared priorities for advancing seniors housing that were applicable to two nations with different social systems. This paper will reflect on the exchange of knowledge and best practices related to housing preservation, eviction prevention, and access to supports during COVID-19, and the lessons learned fostering a cross-national collaborative network of seniors housing experts.

Session 3460 (Paper)

Sleep: Older Adults and Caregivers

DAY AND NIGHT, NIGHT AND DAY: ASSOCIATIONS OF SLEEP AND ACTIVITY VARIABILITY AND MORTALITY

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Self-reported sleep duration has been repeatedly found to predict mortality. Actigraphy has recently been added to population-based studies to provide more accurate sleep measures. Actigraphy sleep duration has not consistently predicted mortality, but actigraphy measures of sleep disruption measures are generally found to be predictive of mortality for older adults. A few studies have more fully used actigraphy data and constructed variables to summarize 24-hour activity patterns, which have also predicted mortality. In this study, we use a nationally representative study of Americans aged 61 – 91 to examine the associations between mortality and actigraphy-derived measures of variability, for both sleep and 24-hour activity patterns. We use 72-hour wrist actigraphy data from a substudy of the 2010/11 round of the National Social Life, Health and Aging Project (NSHAP) linked to the National Death Index (NDI) to establish

5-year mortality. Sleep variability was represented by sleep fragmentation and the standard deviation of wake and bed times. Intraday variability and between day (interday) variability described the 24-hour activity patterns. Cox proportional hazards models were adjusted for sociodemographic confounders and average daytime activity. In general, more variability was associated with increased death hazard for all measures. Fragmentation (HR: 1.04, 95% CI: [1.01, 1.07], $p = 0.01$), standard deviation of bedtimes (HR: 1.16, 95% CI: [1.02, 1.31], $p = 0.02$), and intraday variability (HR: 1.19, 95% CI: [0.98, 1.43], $p = 0.07$) showed the strongest associations. This study suggests that both consistent sleep and 24-hour activity patterns are associated with better prospective health.

OBJECTIVE SLEEP QUALITY AND THE UNDERLYING FUNCTIONAL NEURAL CORRELATES AMONG OLDER ADULTS WITH PROBABLE MCI

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Poor sleep is a strong risk factor for dementia and is commonly reported among older adults with mild cognitive impairment (MCI). However, the neural underpinnings of poor sleep among older adults with MCI remains equivocal. The goal of this cross-sectional analysis was to explore the relationship between resting-state functional connectivity in the brain and sleep quality as measured by actigraphy. We hypothesize lower sleep efficiency and higher sleep fragmentation may be associated with aberrant functional connectivity of brain regions involved in somatosensory, somatomotor, and attentional processing. Thirty-six community-dwelling older adults with probable MCI between 65-85 years (mean=71.8 years) were assessed for sleep quality using a motion watch to quantify sleep efficiency and fragmentation over 14 days. All participants completed resting-state functional magnetic resonance imaging (fMRI) within 14 days of sleep monitoring. Independent associations between network connectivity and sleep quality were determined using general linear models. Examined networks included the somatosensory network (SMN), dorsal attention network (DAN), ventral attention network (VAN), frontoparietal network (FPN), and default mode network (DMN). Mean Montreal Cognitive Assessment score was 22.5 (SD=2.7) and Mini-Mental State Examination score was 28.3 (SD=1.5). Mean sleep efficiency and fragmentation index was 80.1% and 31.8 respectively. Higher sleep fragmentation correlated with increased connectivity between the SMN and insula, the SMN and posterior cingulate, as well as FPN and primary motor area ($Z=3.1$; $p<0.05$). These results suggest aberrant functional connectivity between brain regions involved in attentional and somatosensory processes may be associated with disrupted sleep mechanisms in older adults with MCI.