

SLEEP DISTURBANCES AND THE SPEED OF MULTIMORBIDITY DEVELOPMENT IN OLD AGE

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Sleep disturbances are prevalent among older adults and are associated with various individual diseases. The goal of this study was to investigate whether sleep disturbances are associated with the speed of multimorbidity development among older adults. Data were gathered from the Swedish National study of Aging and Care in Kungsholmen (SNAC-K), an ongoing population-based study of subjects aged 60+ (N=3363). The study included a subsample (n=1189) without multimorbidity at baseline (<2 chronic diseases). Baseline sleep disturbances were assessed using the Comprehensive Psychiatric Rating Scale, and categorized as none, mild, moderate-severe. The number of chronic conditions throughout the nine-year follow-up was obtained from clinical examinations. Linear mixed models were used to study the association between sleep disturbances and the speed of chronic diseases accumulation, adjusting for sex, age, education, physical activity, smoking, alcohol consumption, depression, pain, and psychotropic drug use. We repeated the analyses including only cardiovascular, neuropsychiatric, and musculoskeletal diseases as the outcome. Moderate-severe sleep disturbances were associated with a higher speed of chronic disease accumulation ($\beta/\text{year}=0.142$, $p=0.008$), regardless of potential confounders. Significant positive associations were also found between moderate-severe sleep disturbances and neuropsychiatric ($\beta/\text{year}=0.041$, $p=0.016$) and musculoskeletal ($\beta/\text{year}=0.038$, $p=0.025$) disease accumulation, but not with cardiovascular diseases. Results remained stable when participants with baseline dementia, cognitive impairment, or depression were excluded. The finding that sleep disturbances are associated with faster chronic disease accumulation points towards the importance of early detection and treatment of sleep disturbances as a possible strategy to reduce chronic multimorbidity among older adults.

SLEEP PHENOTYPES OF CAREGIVERS FOR PERSONS LIVING WITH DEMENTIA

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Sleep disturbance is prevalent among caregivers of people living with dementia. Gaps exist regarding when caregivers begin to experience sleep disturbance along their caregiving trajectory. This study aimed to identify and describe phenotypes of current caregivers' sleep patterns before and during caregiving and describe caregivers' perception of their current sleep quality relative to their pre-caregiving sleep. We conducted semi-structured interviews with 19 caregivers participating in a larger, randomized controlled trial. Interviews were about caregivers' sleep patterns and were conducted after caregivers completed the first 6 months of

the study. Interviews were audio-recorded using a video-conferencing platform and ranged from 20 to 45 minutes. We conducted thematic analysis of the interview transcripts. Four distinct caregiver-sleep phenotypes emerged from the qualitative data: Changed and Dissatisfied, Changed and Satisfied, Unchanged and Dissatisfied, and Unchanged and Satisfied. Caregivers whose sleep was categorized as Changed experienced a difference in their pre-caregiving sleep, usually from good to poor sleep. Caregivers whose sleep was Unchanged had poor sleep pre-caregiving and continued to have poor sleep during caregiving. Caregivers also reported being Satisfied or Dissatisfied with their current sleep pattern, defined in terms of daily distress and impairment. These 4 subtypes highlight the heterogeneity of caregivers' sleep experiences and debut a useful clinical framework with which to identify, categorize, and target caregivers at risk for sleep disturbance. Identifying caregivers' sleep phenotypes will enable healthcare providers to determine caregivers' needs and readiness for interventions.

Session 3465 (Symposium)

SOCIAL DETERMINANTS OF COGNITIVE HEALTH: STUDIES ON PHYSICAL AND SOCIAL ENVIRONMENTS AND COGNITION

Chair: Kexin Yu

Co-Chair: Ted Ng

Discussant: Patricia Heyn

Living environments profoundly influence the aging process. This symposium presents research on two main aspects of the living environment and their relationships with cognitive health. The living environment is broadly defined, including both physical and social aspects. The physical environment is the characteristics of the built environment, such as tripping hazard in the home, cleanness of the community streets, and presence of deserted buildings, etc. The social environment is the cohesiveness with other people living in the neighborhood. Living environments have multiple layers; the physical environments encompass both in-home and in-community domains, whereas the social environment can be categorized as domestic versus community cohesiveness. This symposium includes studies with investigation scopes spanning from the micro to mezzo levels. The first presentation scrutinizes the buffering effect of marital relationships, as a form of domestic social environments, on cognition among older adults with vision and hearing impairments. Using the NHATS dataset, the second presentation examines social isolation as a potential mediator for the association between physical, social environments and global cognitive functioning. The third presentation evaluates the impact of living environments on cognition among Canadian older adults with multimorbidity. The last presentation examines how the physical environment affects sleep quality and thus influences older adults' cognition. All four presentations are closely linked to the overarching theme of evaluating the environmental impact on cognition and provide possible explanations mediating the association observed. This symposium contributes to advancing gerontological knowledge by offering new perspectives on the social determinants of cognitive health.