

### EXAMINING SOCIAL ISOLATION AS A MEDIATOR FOR THE ENVIRONMENTAL INFLUENCE ON COGNITIVE FUNCTIONING

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Environments serve as one of the most pervasive stimuli to the brain, shaping cognitive functionality through neuroplasticity. Both the physical and social environments of living could affect the cognitive functioning of older adults. Nonetheless, the mechanisms on how the environments “get under the skin” are unknown. This study examines the potential mediating effect of social isolation on the relationships between environment and cognitive health. Wave 9 data from the National Healthy Aging Trend Study was employed. The working sample includes 2,313 older adults. Path analysis results showed that in-home disorder was positively related to social isolation. A more cohesive social environment was negatively related to social isolation. Higher social isolation scores were associated with worsen global cognitive functioning. In-home disorder, community disorder, and social environment had significant direct effects on cognitive health after adjusting for the mediating effect. Social Isolation partially mediates the environmental influence on cognitive functioning.

### AT-HOMENESS INFLUENCES THE COGNITION OF MULTIMORBID OLDER ADULTS: LONGITUDINAL PATH ANALYSIS THROUGH LONELINESS

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Approximately two-thirds of older adults’ experience multimorbidity in North America. Challenges of symptoms management and reduced mobility often coincide with late-life depression which is associated with a 2 to 5-fold increased dementia risk. Loneliness and depression are connected in the prodromal phases. We examine the effects of physical environment (e.g., housing and neighborhood factors) and social environment (e.g., social support) on loneliness, depression, and cognition using path analysis, controlling for baseline. Data (n=15,087) was drawn from the Canadian Longitudinal Study on Aging. Measures of housing, neighborhood and life satisfaction were used to construct an index of “at-homeness” based on theory. We found good model fit (TLI=.989; CFI=.999; RMSEA=.026; SRMR=.006). At-homeness (B=-.20, p<.001) rivaled the effect of social environment (B=-.19, p<.001) on loneliness. Together, physical environment and loneliness had as much effect on cognition as depression. If causality is supported, modifying older adults’ satisfaction with their home environment may reduce loneliness and cognitive decline.

### WAKE AFTER SLEEP ONSET MEDIATES THE LINK BETWEEN NEIGHBORHOOD SOCIAL ENVIRONMENT AND COGNITION IN OLDER ADULTS

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Cognition is influenced by the neighborhood social and physical environment, but the underlying mechanisms by which neighborhood environment affects cognition are unclear. We tested the hypothesis that sleep mediates the

effects between environmental exposures and cognition. We employed structural equation modeling to examine interrelationships among neighborhood social and physical environment, actigraphic sleep characteristics, and global cognition in a sample of older adults (N=3,196) from Round 2 of the National Social Life, Health, and Aging Project. Results indicated that participants with better cognition lived in salutary (e.g., cohesive, safe) social environments (est.=0.03, p<.001) and less disruptive (e.g., noisy, polluted) physical environments (est.=-0.04, p<.001). The mediation hypothesis was partially supported. Time spent awake after sleep onset mediated the social environment-cognition relationship, but sleep characteristics did not mediate the physical environment-cognition relationship. Future work should identify other environmental influences on sleep and cognition in aging to inform public health intervention priorities.

### MARITAL QUALITY AS A MODERATOR OF THE ASSOCIATION BETWEEN SENSORY IMPAIRMENTS AND COGNITIVE FUNCTIONING

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Research suggests that marital quality may buffer the impact of sensory impairments in later life, and that marital quality relates to cognitive functioning. This study explored how marital quality moderated links between sensory impairments and cognitive functioning. We used data from 723 paired marital dyads from two cohorts in the NHATS and NSOC studies across three-year periods (n=340 dyads from waves 1, 2, 3; n=383 dyads from waves 5, 6, 7). Growth curve models of executive functioning indicated that marital quality moderated effects of both hearing and vision impairment on changes in cognitive functioning longitudinally. Specifically, higher marital quality was associated with higher executive functioning across time. Results suggested no improvement in executive functioning among those with average or lower marital quality. Although cognition declines with advanced age and with sensory impairments, results suggest that older adults with higher marital quality may improve in some aspects of cognition longitudinally.

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### Social Determinants of Mental Health

#### A NEW AND WORRISOME PREDICTOR OF ATTITUDES TOWARD SUICIDE: SELF-RATED HEALTH

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Do people have the right to end their own lives? The General Social Survey has monitored the attitudes of