

networks in which caregivers are embedded shape their psychological well-being.

THE IMPACT OF CAREGIVING INTENSITY AND RELIGIOSITY ON SPOUSE CAREGIVERS' HEALTH AND MORTALITY IN THE UNITED STATES (2004–2014)

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Prior research has indicated that religiosity may buffer against the deleterious effects of caregiving. However, research is lacking in examining the role of religiosity and caregiving intensity in the context of caregiver wellbeing and mortality. Data come from the Health and Retirement Study (2004-2014 waves) and consisted of spousal caregivers and noncaregivers (n= 49,638 person-spells). Pearlin's Stress Process Model (1990) informed this study to analyze how religiosity impacts caregiver self-rated health and mortality by comparing the intensity of provided care among spousal caregivers and spousal noncaregivers. This study used two indicators to measure religiosity: 1) the importance of religion in life and 2) frequency of attending religious services. Bivariate probit model was used to model the impact of caregiving intensity and religiosity on self-rated health and all-cause mortality. After controlling for sociodemographic and health covariates, results showed that only the importance of religion in life predicted a better self-rated health among high intense spouse caregivers defined by providing ≥ 14 hours of care per week. Findings suggest religiosity may buffer the adverse effect of caregiving stress on health for high intense spousal caregivers. Development and maintenance of religiosity may enhance positive aspects of caregiving and decrease caregiver burden.

UNMET HOME- AND COMMUNITY-BASED SERVICE NEEDS AMONG INFORMAL CAREGIVERS IN RURAL AND URBAN AREAS

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Home- and community-based services (HCBS) can reduce caregiver burden. We compared the prevalence of HCBS unmet needs among caregivers in rural and urban areas and identified factors associated with unmet HCBS needs. We used 2015-2018 Behavioral Risk Factor Surveillance System data, including the optional Caregiver Module, from 44 states, District of Columbia, and Puerto Rico. Caregivers were individuals providing care/assistance to a friend/family member with a long-term illness/disability during the past 30 days. Unmet needs were defined as needing, but not receiving, one or more of the following: caregiving classes, help accessing services, support groups, individual counseling, or respite care. "Rural" was defined as living outside Metropolitan Statistical Areas (available only for landline

respondents). We calculated weighted estimates and used log-binomial regression to estimate adjusted prevalence ratios (PR). 19% of 25,180 caregivers lived in a rural area. Rural caregivers were less likely to report unmet HCBS needs (14.4% versus 20.6% urban, $p < 0.001$), even after accounting for sociodemographic and caregiving characteristics (PR=0.81, 95% CI: 0.65-0.99, $p = 0.040$). Unmet needs were more common among caregivers who provided more care, personal care, or care for someone with Alzheimer's disease/dementia, regardless of rural residence. Although rural individuals can experience more barriers to accessing health services, rural caregivers in our study reported fewer unmet HCBS needs than urban caregivers. Additional research is needed to determine if stronger systems of informal support in rural areas may explain this difference. Further investigation of factors contributing to differences in unmet service needs among rural and urban caregivers is needed.

SESSION 3015 (PAPER)

BIOBEHAVIORAL HEALTH

BODY MASS INDEX INSTABILITY AND INCIDENT MILD COGNITIVE IMPAIRMENT AMONG BLACK OLDER ADULTS

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Despite general negative health effects, elevated body mass index (BMI) can be "protective" against poor health outcomes, including cognitive decline and mild cognitive impairment (MCI), in old age. However, few studies have examined the effects of BMI fluctuations (BMI instability) over time. The purpose of this study was to examine how BMI level at baseline and BMI instability is related to incident MCI in Black participants from the Minority Aging Research Study (MARS; N = 522, mean age = 73.5, mean education = 15.0; 76.5% women). Participants without cognitive impairment at baseline underwent annual clinical evaluations, including measurement of BMI and 19 neuropsychological tests for up to 15 years of follow-up to document MCI. 192 of 522 persons developed MCI. In Cox models adjusted for age, sex, and education, 1) higher baseline BMI, across the range of all values (mean=30.5; SD=6.5), was related to a decreased risk of MCI (Hazard Ratio = 0.97; 95% CI = 0.94-1.00); and 2) BMI instability (with a maximal range of 0-15.7; mean=3.2; SD=2.5) was related to an increased risk of MCI (Hazard Ratio = 1.09; 95% CI = 1.03-1.15). The present findings suggest that while late-life higher BMI level may protect against MCI, BMI instability over the years is detrimental to cognition in Black persons without dementia. Future research should investigate underlying mechanisms.

CYSTATIN C TRAJECTORIES AMONG MIDDLE-AGED AND OLDER AMERICANS

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Deterioration in kidney functioning is associated with aging and is a major risk factor for mortality and other poor health outcomes. Medicare expenses for poor kidney functioning are about 100 billion dollars every year. High Cystatin-C is an indicator of poor kidney functioning. We do not know if cystatin-C increases gradually as an individual ages. We use the Health and Retirement Study 2006/2008 Biomarker sample with follow-up for 8 years to examine this. Demographic and socioeconomic differences in trajectories of Cystatin-C trajectories were examined for 22,984 participants aged 50 and older. Growth curve models reveal that, although Cystatin-C increases with age ($\beta=0.025$, $p<0.001$), the annual increase varies by age ($60-69 = 0.005$, $70-79 = 0.013$, $80+ = 0.017$, $p<0.001$), controlling for other socioeconomic variables. Cystatin-C increases faster for males than females. Cystatin-C of non-Hispanic Whites is lower than non-Hispanic Blacks but higher than Hispanics; there is no racial/ethnic difference in change over time. People who spent fewer years in school have higher Cystatin-C, and college graduates have slower growth in Cystatin-C compared to people who did not graduate from high school. These novel findings highlight the disparities in the process of kidney aging among older Americans.

INSULAR AND HIPPOCAMPAL CONNECTIVITY IS ASSOCIATED WITH PERCEIVED FINANCIAL EXPLOITATION IN OLDER ADULTS

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Little is known about the neural correlates of financial exploitation (FE) in older adults. Cognitively-intact older adults who self-reported a history of FE ($N=19$; M age= 69.84 , $SD=13.06$) and demographically-matched non-FE older adults ($N=16$; M age= 65.13 , $SD=8.48$) underwent resting-state fMRI. Predefined regions of interest were prescribed using the Harvard-Oxford atlas for their involvement in tasks of economic decision making: insula, hippocampus, and the medial prefrontal cortex (mPFC). Analyses adjusted for age, education, sex, and MoCA scores; groups did not differ on these factors. Clusters were FDR-corrected with a threshold of $p<0.05$ (voxel threshold $p<0.005$), two-tailed. Compared to the non-FE group, the FE group exhibited greater functional connectivity (FC) between the right insula and left temporal lobe regions ($t(29) = -4.81$), and between the left insula and right temporal lobe regions ($t(29) = -5.78$). The FE group showed less FC between the left insula and two clusters in the right lateral occipital cortex ($t(29) = 5.18$) and left cerebellum ($t(29) = 4.68$). Additionally, FE was associated with greater FC between the right hippocampus and five clusters spanning the right temporal lobe, parietal lobe, and frontal pole ($ts(29) = -4.11$ to -4.51), and less FC between

the right hippocampus and three clusters spanning the bilateral caudate and the left intracalcarine cortex ($ts(29) = 4.76-6.03$). Groups did not differ in FC patterns with the mPFC. Results suggest that FE is associated with whole-brain FC differences involving the insula and hippocampus among cognitively-intact older adults.

SKIPPING MEALS IS ASSOCIATED WITH SYMPTOMS OF ANXIETY AND DEPRESSION IN U.S. OLDER ADULTS

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Previous studies have shown that higher levels of economic hardship in older adults is associated with increased odds of adverse health outcomes such as insomnia, anxiety, and depressive symptoms. The objective of this study was to determine if there was a differential association between individual measures of economic hardship and aforementioned adverse health outcomes. Cross-sectional analysis was conducted using data from the 2013 National Health and Aging Trends Study (NHATS). Logistic models were developed to assess the association between four measures of economic hardship which included not having enough money for food, utility bills, mortgage/rent, or medical bills/prescription drugs. Measures of adverse health outcomes were symptoms of depression, anxiety, and insomnia. There were 4467 community-dwelling older adults (65+) in the analyses. Results indicated those who skipped meals were more likely to have depression, anxiety, and insomnia symptoms than those who did not skip meals. After adjusting for race, age, gender, education, and total number of comorbid health conditions, skipping meals was associated with depression ($OR=2.71$, $p<.05$) and anxiety ($OR=2.84$, $p<.01$). Skipping meals did not have a statistically significant association with insomnia. The analysis for skipping meals showed a higher odds and more statistically significant results than the other measures of economic hardship listed above. These findings are relevant to population-based efforts to improve quality of life in aging populations and may be of interest to those researchers investigating the gut-brain axis. These findings may also inform future policy efforts to address health disparities and food insecurity in older adults.

SESSION 3016 (PAPER)

NATIONAL AND CROSS-CULTURAL STUDIES

CHILDLESSNESS, INDIVIDUAL SOCIOECONOMIC RESOURCES, AND HEALTH: EXPLORING VARIATION IN 20 COUNTRIES

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Childless older adults may be at risk for poorer health cross-nationally, yet most studies on this topic analyze only a small number of countries and only 1 or 2 health outcomes. To our knowledge, two papers exist that explore associations