HETEROGENEOUS PATTERNS OF OLD-AGE VULNERABILITY AND LONELINESS FROM THE CROSS-NATIONAL COMPARATIVE PERSPECTIVE

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Loneliness has been extensively examined as a major risk factor for mortality and morbidity among older adults. In this research, we identified multi-dimensional patterns of old-age vulnerability in five countries (U.S., Korea, Sweden, Germany, Italy) guided by the welfare regime framework and examined how the patterns of vulnerability are associated with loneliness in older age in each country. Data were drawn from comparative national aging data: HRS for the U.S. (n=4331), KLOSA for Korea (n=3721), SHARE for Sweden (n=2746), Germany (n=2271), and Italy (n=2988). We used three vulnerability constructs: 1) material vulnerability (poverty, high out-of-pocket expenses for health care, unaffordability for housing), 2) health vulnerability (multiple chronic condition, depression), and 3) social vulnerability (living alone, contact with children and friend, social participation). Latent Class Analysis and regression analyses were used for data analysis. The relative proportion of the least vulnerable group varies substantially (from 11.88% in Italy to 59.33% in the U.S.). In Sweden and Germany, around 7% of the sample belongs to the most vulnerable group, while in other countries the most vulnerable group was not found. Notably, in Italy, older people in the social vulnerable group were more likely to feel lonely when compared to least vulnerable, suggesting the country-specific significance of social supportive environment. This study is the first research to examine the empirical structure of the concept and how it may vary across countries related to their loneliness. A full discussion of country-specific discussion and policy implications will be presented.

HIPPOCAMPAL KNOCKOUT OF P300 AFFECTS LEARNING AND MEMORY IN MICE

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Aging has been associated with cognitive decline, as seen in various learning and memory processes. Specifically, p300, a lysine acetyltransferase, has been shown to decrease with age, which could have an effect on cognition. In a series of behavioral tests, the effect of the knockout of p300 was studied in mice. In the water T maze test and the object recognition test, the results conveyed that the mice’s learning skills had not been impacted by the knockout of p300. But the water T maze test results further showed that the p300 knockout mice had a decline in their cognitive flexibility to new information. These findings suggest that the knockout of p300 has a negative impact on cognition. We expect that the overexpression of p300 in older mice will restore the cognition that might have been lost with aging.

HOME CARE PHYSICAL THERAPISTS’ VIEWS ON INTER-PROFESSIONAL SHARED DECISION MAKING

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Shared decision making (SDM) has been associated with increased patient satisfaction and engagement and improved process and care outcomes. However, SDM use by physical therapists (PTs) working with older adults in the home care setting is not known. Understanding home care PTs’ views about and experiences with SDM, including inter-professional SDM, can inform SDM research and strategies for increasing its use. This presentation highlights inter-professional aspects of SDM described by home care PTs in the qualitative arm of a mixed methods, implementation science frameworks-informed study exploring PTs’ perspectives on SDM in home care. Semi-structured interview data from twenty PTs (80% female; mean age = 50.6, SD=12.7, range 28-73) representing all geographic regions of the continental United States and having varied levels of geriatric (mean 24.2 years, SD=11.6, range 3-40) and home care (mean 15.7, SD=11.5, range 2-40) experience were analyzed using thematic content analysis. A trustworthiness plan guided data collection and analysis, and reflexive journaling, memo, audit trail, peer debriefing, data triangulation, and member checking were used to support study rigor. Three inter-professional SDM-related themes were identified: team members facilitating SDM for all disciplines; within-team sharing of and competition for patient care resources; and limited patient/caregiver participation in team treatment planning decisions. Findings support the need for including inter-professional issues in home care SDM implementation and measurement research and suggest topics to include in future studies.

HOSPICE CAREGIVER BURDEN AND WORK PRODUCTIVITY: AN EXPLORATORY ANALYSIS

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Hospice caregivers experience burden that impacts their physical, emotional, and social well-being. Little is known about how caregiver burden impacts occupational well-being through employment and work productivity. Thus, our purpose was to explore the relationships between caregiver burden and dimensions of work productivity/impairment (absenteeism, presenteeism, activity impairment, and overall impairment) among working hospice cancer caregivers. This is a secondary data analysis of baseline data from a larger study of caregiver communication and bereavement. Study data including demographics, preparedness for caregiving, caregiver burden, and work productivity/impairment were analyzed using descriptive statistics, correlation analysis, and stepwise multiple linear regression. Dimensions of work productivity/impairment were dependent variables, and age and preparedness for caregiving were covariates. Working caregivers (N=54) had an average age of 52 (SD: 12.65), and were primarily White (83%), female (70%), married (69%).
employed full-time (70%) and had a household income of $50,000 or more (65%). Greater caregiver burden was significantly associated with lower preparedness for caregiving ($r=-.41, p<.01$), and greater activity impairment ($r=.50, p<.01$), presenteeism ($r=.44, p<.01$), and overall impairment ($r=.36, p<.05$), but not absenteeism. Caregiver burden predicted activity impairment ($b=1.72 \pm .72, 2.71, p<.01$), presenteeism ($b=1.44 \pm 3.53, 2.55, p<.01$), and overall impairment ($b=1.43 \pm .09, 2.74, p<.05$), even after controlling for age and preparation for caregiving. More burdened caregivers may be having more challenges with work productivity. Additional research is needed to examine these relationships in a larger, more diverse sample. Future research should also investigate how supportive work environments and leave policies reduce caregiver burden and promote work productivity.

**IMPACT OF RECREATIONAL PHYSICAL ACTIVITY AND BODY COMPOSITION ON INSULIN RESISTANCE IN OLDER ADULT POPULATION**

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**Purpose:** The study was to identify the impact of physical activity (PA) and body composition on insulin resistance in older adults and investigate racial/ethnic difference in these relationships.

**Method:** This secondary data analysis project used 717 participants who were 55 years and older without diabetes from the 2017-2018 National Health and Nutrition Examination Survey. Major variables included homeostatic model assessment of insulin resistance (HOMA-IR), body mass index (BMI), waist circumference (WC), and recreational PA. The covariates included were demographic, nutrition intake, and lifestyle (smoking and alcohol usage). Hierarchical multiple regressions were conducted to analyze the data.

**Results:** Body composition and recreational PA had interaction and main effects on HOMA-IR in the overall sample. Level of HOMA-IR decreased with increasing levels of recreational PA in individuals with lower levels of BMI, but in individuals with higher levels of BMI, HOMA-IR increased. Level of HOMA-IR increased with increasing levels of recreational PA across the range of WCs, but the rate of increase was slightly more pronounced at higher level of WCs. These results varied across racial/ethnic groups.

**Conclusion:** Overall, both recreational PA and body composition are important factors that affect level of HOMA-IR, but body composition seems to be the dominant factor. PA is only beneficial for older adults with low BMI. Interventions for reducing insulin resistance should be tailored to specific racial/ethnic groups.

**IT TAKES A VILLAGE - ATYPICAL PRESENTATION WARRANTS TEAMWORK FOR SEPSIS CARE**

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Sepsis is the body’s overwhelming response to infection that can lead to tissue damage, organ failure, and death. Sepsis, disproportionately affects older adults due to an aging immune system and chronic illness. Older adults present atypically delaying diagnosis and intervention. This delay has been associated with increased morbidity and mortality. However, with early detection and rapid treatment there can be a reduction in poor outcomes. It is key, that clinicians practice collaboration and communication when diagnosing & treating patients that may have a different presentation. Early detection, monitoring, and intervention are crucial to survival of the elder septic patient. The Continuous Monitoring Unit (CMU) consists of RNs, who monitor telemetry, video, and the Sepsis BPA/Checklist 24 hours/7 days a week. These nurses evaluate all active ED and acute care BPA points. With their specific training, they dismiss the irrelevant and align the significant data while looking for possible notes of infection. They do not act upon the BPA unless the patient meets criteria. If there is confirmation of the BPA, the nurse collaborates with the primary provider to initiate recommended sepsis care. Since the beginning of August 2021, the CMU RN is utilizing the Sepsis Checklist, a customized tool built into the EMR that allows the CMU nurse to monitor the key elements of the Sepsis Bundle and intervene concurrently to complete the CMS SEP1 recommendations. Recommendations are based on the Surviving Sepsis Campaign.

**LATENT CLASSES OF FIRST INCIDENT DIFFICULTY IN INSTRUMENTAL ACTIVITIES OF DAILY LIVING**

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Ability to perform instrumental activities of daily living (IADLs) deteriorates during prodromal Alzheimer’s disease (AD), eventually leading to impaired everyday functioning and dementia. Ordering and timing of IADL difficulty onset may identify individuals at greater risk of cognitive impairment, but most studies only consider total number of difficult tasks. Leveraging longitudinal data from the Advanced Cognitive Training in Independent and Vital Elderly (ACTIVE) Study who entered free of any IADL difficulty (N=1266), we hypothesized that a latent class analysis based on timing of first reported IADL task difficulty would reveal class differences in cognitive functioning. Participants were followed until they self-reported at least one IADL difficulty, study completion (10 years), or loss to follow-up. Discrete-time multiple event process survival mixture (MEPSUM) models were used to simultaneously estimate hazards of incident IADL task difficulty over time and covariate-adjusted models (adjusted for age, sex, race, education, marital status, and general health rating) were fit. Using the 2-class solution as the most parsimonious model, model entropy was 0.855. The model was able to distinguish a class of participants with lower global cognitive factor scores at baseline (Cohen’s D = 0.23, P = 0.04). We conclude that first incident IADL difficulty may be a useful measure in identifying individuals with worse cognitive functioning.

**LIFESPAN DEVELOPMENTAL ANALYSIS OF HEALTH PROBLEMS AND PROBLEM DRINKING ACROSS WHITE AND UNDERREPRESENTED ADULTS**

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