

These projects, which leveraged a common social media platform, demonstrated preliminary efficacy of an online intervention for frailty management. If confirmed, this approach might provide a viable model for other medically complex geriatric conditions where self-management is essential.

ASSOCIATION BETWEEN WALKING ENERGETICS AND FRAGMENTED PHYSICAL ACTIVITY IN MID-TO-LATE LIFE

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Physical activity becomes increasingly fragmented with age, and may be an early marker of functional decline. Energy regulation has been linked with functional decline, yet whether the energy needed for walking, a common type of physical activity, is related to fragmentation of physical activity remains unknown. The study population included 493 participants aged 50-93 years from the Baltimore Longitudinal Study of Aging. Energetic measures included the energetic cost of usual-paced overground walking (ml/kg/m), the average energy expended (ml/kg/min) during a rapid-paced 400-m walk, and a cost-to-capacity ratio between the energy expended during 5-min treadmill walk (0.67 m/s, 0% grade) and the energy expended during the 400-m walk. Activity fragmentation was extracted from accelerometer data collected over ≥ 3 valid days and quantified via an active-to-sedentary transition probability (ASTP). Associations between the energetic measures and ASTP were assessed using multivariate linear regression models. Interactions between energetics and total daily physical activity, quantified as total log-transformed activity counts (TLAC), were also assessed. After adjusting for TLAC, demographics, body composition and comorbidity, higher cost-to-capacity ratio was associated with 3.51% greater fragmented physical activity ($p=0.005$). Energetics by TLAC interactions revealed that lower rapid-paced walking energy expenditure and higher cost-to-capacity ratio were only significantly associated with greater fragmentation in the most sedentary participants ($p<0.01$ for both). Our results suggest that deterioration of walking efficiency may manifest as a more fragmented physical activity profile, especially among sedentary adults. Future longitudinal studies to understand whether declining walking efficiency predicts the onset and progression of activity fragmentation are warranted.

THE IMPORTANCE OF HSP-25 IN CAENORHABDITIS ELEGANS LONGEVITY

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Karl A. Rodriguez's laboratory at the University of Texas Health Science Center, San Antonio, Texas, is interested in the role of small heat shock proteins in the proteostasis network and aging using the model organism, *Caenorhabditis elegans*. Molecular chaperones facilitate protein folding and improve the degradation activity of the proteasome and autolysosome hence decreasing disease-associated aggregates. Previous work in rodents have shown an increase in expression levels of the small heat shock protein 25 (HSP-25) correlates with maximum lifespan potential. To further explore the role of HSP-25 in *C. elegans*, two HSP-25 knock-out strains were exposed to a one-hour heat stress, heat shock, and two non-heat stress conditions.

SESSION LB1545 (LATE BREAKING POSTER)

LATE BREAKING POSTER SESSION II

NEUROPSYCHOLOGICAL ASSESSMENT OF POSTERIOR CORTICAL ATROPHY: A CASE STUDY

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The following case study examines the presentation of Mr. Fraser*, an older adult African American male diagnosed with Posterior Cortical Atrophy (PCA) following neuropsychological evaluation. PCA is a rare variant of Alzheimer's Disease (AD) that results in visuospatial and perceptual deficits. Unlike other forms of neurocognitive degeneration, PCA tends to present at a relatively young age and may progress rapidly. There is currently a lack of studies examining PCA from a neuropsychological perspective, which may contribute to low awareness of this condition, as well as delayed diagnosis. It has been estimated that approximately 5% of patients with AD exhibit the PCA variant, implying that this a rare but serious condition. The following case study focuses on Mr. Fraser, a 65-year-old who was referred for neuropsychological assessment to assess his cognitive functioning. Mr. Fraser was administered a comprehensive assessment battery, and his overall results were suggestive of severe deficits in delayed memory and visuospatial skills. In the case of Mr. Fraser, these observed deficits, along with identification of visual complaints noted by his geriatrician, ultimately led to a diagnosis of PCA. While this was supported by neurological testing, the DSM-5 does not currently recognize PCA as a diagnosis. As a result, Mr. Fraser was given a diagnosis of possible AD with potential PCA, which may contribute to underestimates of the prevalence of this disorder. Future research and practice should focus on common neuropsychological presentations of this condition. *Identifying information changed in accordance with HIPAA guidelines

NINE YEAR CHANGES IN PREVALENCE OF COGNITIVE IMPAIRMENT IN THE CZECH REPUBLIC

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Studies from North America and Western Europe suggest stable or declining trends in impaired cognition. Nevertheless, data on changes in cognitive health from Central and Eastern Europe are largely lacking. Therefore, we aimed to examine changes in the age-specific prevalence of cognitive impairment in the Czech Republic, a country in Central Europe. To this aim we used two samples from the population-based Czech Survey on Health, Ageing and Retirement in Europe (SHARE). Age-specific prevalence of cognitive impairment (defined based on scores in verbal fluency, immediate recall, delayed recall and temporal orientation) was compared between participants in wave 2 (2006/2007; n=1,107) and wave 6 (2015; n=3,104). Logistic regression was used to estimate the association between wave and cognitive impairment, step-wise adjusting for sociodemographic and clinical characteristics. Multiple sensitivity analyses, focusing on alternative operationalisations of relative cognitive impairment, impact of missing cognitive data and survival bias, were carried out. The most conservative estimate suggested that the age-specific prevalence of cognitive impairment declined by one fifth, from 11% in 2006/2007 to 9% in 2015. Decline was observed in all sensitivity analyses. Multivariate decomposition for nonlinear models was used to examine which predictors explain the change in prevalence. Reduction in physical inactivity, control of high blood cholesterol and increases in length of education were the main predictors contributing to decline in cognitive impairment. In conclusion, our findings are in line with those found in North America and Western Europe even though countries in Central and Eastern Europe, including Czech Republic, have poorer risk profiles.

“HE EXPLAINED IT TO ME AND I ALSO DID IT MYSELF”: HOW OLDER ADULTS GET HELP WITH DIGITAL TECHNOLOGY

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Older adults comprise a highly heterogeneous group that engages with digital media in varying ways, therefore a large variation in technology support needs is likely. This study examines the nature of support for using digital media among older adults. We conducted in-depth qualitative interviews with older adults (age 59+) in Hungary, the Netherlands, and Switzerland (N=58) in 2019 exploring: (1) whether and how older adults receive support in using digital media; and (2) older adults' perceptions of whether the support they receive meets their needs. We began with open coding, then conducted consensus meetings to identify themes and coding schemes, and wrote memos to share findings and ensure reliability across coders. We find that older adults voice a highly varying range of need for technical

support as well as varying instances of both receiving and not receiving technical help. Participants report receiving help from different informal (e.g. spouses) and formal (e.g. computer classes) sources. However, support may not be immediate, posing challenges for older adults who depend on the availability of their support sources. Importantly, we also find that there are older adults who are quite self-sufficient in the ways they use digital technology. For older adults needing support, greater access to community-based support may help those without satisfactory options in their own social circle. Given our findings that older adults can have great ease with solving technology-related problems, peer-driven support networks where older adults can offer support to others may be an effective approach to providing digital technology guidance.

DEVELOPMENT AND EVALUATION OF THE NURSES IMPROVING CARE FOR HEALTHSYSTEM ELDERS (NICHE) LONG-TERM CARE PROGRAM

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Nurses Improving Care for Healthsystem Elders (NICHE) is a geriatric care model that positions nurses as leaders to address the unique care needs of older adults. From 2016 to 2019, we developed and piloted the NICHE-LTC program. NICHE-LTC program includes the three interrelated components of 1) the Geriatric Resource Nurse (GRN) and Geriatric Certified Nursing Assistant (GCNA) clinical leadership roles; 2) research-based clinical protocols and assessment tools; and 3) staff development, quality improvement (QI), and care coordination models to build clinician and organizational capacity in geriatrics. We report the results of a summative program evaluation of the NICHE-LTC program. We collected data on organizational and participant demographics, facility enrollment and retention, program completion rates, clinical quality improvement project plans, and participant satisfaction data from 369 individuals working in 79 facilities participating in NICHE-LTC program from January 2016 to February 2019. The majority of participants (80%) reported a positive learning outcome after completing NICHE-LTC program. Additionally, 80% reported they agreed or strongly agreed that their knowledge and ability to implement quality improvement initiatives in their facilities improved. The NICHE-LTC supported facilities ability to move from process-oriented QI priorities to patient-based outcome QI priorities such as falls, pain management, and managing behaviors of dementia. Over the three-year pilot period, NICHE-LTC program maintained an 89.4% annual retention rate. The high annual retention rate suggests that members value the program as an approach to address the