

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

Fangyu Liu,<sup>1</sup> Amal A. Wanigatunga,<sup>1</sup> Pei-Lun Kuo,<sup>2</sup> Vadim Zipunnikov,<sup>1</sup> Eleanor M. Simonsick,<sup>3</sup> and Jennifer A. Schrack<sup>4</sup>, *1. Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States, 2. Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, United States, 3. Longitudinal Studies Section, Intramural Research Program, National Institute on Aging, Baltimore, Maryland, United States, 4. Johns Hopkins University, Baltimore, Maryland, United States*

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  $\geq 3$  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

Niaya James,<sup>1</sup> Jessica L. Scheirer,<sup>2</sup> and Karl Rodriguez<sup>3</sup>, *1. Howard University, Washington, District of Columbia, United States, 2. UT Health Science Center, San Antonio, San Antonio, Texas, United States, 3. Sam and Ann Barshop Institute for Longevity and Aging Research, San Antonio, Texas, United States*

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

Amy Albright,<sup>1</sup> John Burkhardt,<sup>1</sup> Catherine Ikard,<sup>1</sup> and Anne Halli-Tierney<sup>2</sup>, *1. University of Alabama, Tuscaloosa, Alabama, United States, 2. The University of Alabama College of Community Health Sciences, Tuscaloosa, Alabama, United States*

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

Dominika Seblova,<sup>1</sup> Marie Kuklova,<sup>3</sup> Miloslav Kopecek,<sup>3</sup> and Pavla Cermakova, *1. Columbia*