

accommodation rather than a terminal performance management challenge. Empathic research, that engages organizations in the process of understanding the value of affordable, employer-side technologies that help build diverse, sustainable, productive workspaces is critical to a foundational understanding of our aging workforce and accommodating workers who develop MCIEOD while still employed.

#### GENDER DIFFERENCE IN UNMET NEEDS AMONG PEOPLE AGING WITH A TRAUMATIC BRAIN INJURY

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Traumatic Brain Injury (TBI) can result in a myriad of short and long-term mental and physical changes and conditions. While fall-related brain injury prevention strategies and outcomes among older adults have been well-documented in previous literature, less is understood about the experiences and needs of those aging with a brain injury. The aim of this project is to explore gender differences in experiences and needs among people aging with a TBI. A Needs Assessment survey was conducted in early 2020 with adult TBI survivors and their family members in Missouri (n = 150). The mean age of respondents was 45.8 and 58% identified as male. Bivariate analyses reveal gender difference in unmet needs related to information and referral, recreation, and continuing education among TBI survivors. For example, more female respondents (43.1%) identified unmet needs associated with physical activity than their male counterparts (25.9%,  $p < .05$ ). More females (61.3%) than males (43.4%) also identified unmet continuing education needs related to aging with brain injury ( $p < .05$ ), whereas more males (10.8%) identified unmet continuing education needs on the topic of parenting (females: 1.6%,  $p < .05$ ). Significantly more females (31.1%) than males (16.9%) identified lack of transportation as a barrier to accessing needed supports and resources ( $p < .05$ ). Results will guide development of an Annual State Action Plan to maximize the independence, well-being, and health of Missourians aging with TBI and their families. A better understanding of needs and preferences can inform targeted policies, programs, and resources.

#### GENDER DIFFERENCES IN MENTAL AND PHYSICAL HEALTH: IMPLICATIONS FOR AGING WITH A TRAUMATIC BRAIN INJURY

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Traumatic Brain Injury (TBI) is a major cause of disability and death in the U.S., and survivors often experience temporary or life-long health effects as a result of their injury. While risks and outcomes of fall-related TBI in older adults have been well-documented, the intersection of TBI-related health challenges and the experience of aging with a TBI is less well understood. This project explores gender differences in health outcomes among TBI survivors. A Needs Assessment survey was conducted in early 2020 with adult TBI survivors in Missouri (n=150). The mean age of respondents was 46 and 58% identified as male. Bivariate analyses reveal gender differences in health conditions among TBI survivors before and after injury. Significantly more males than

females reported substance use disorder for alcohol (20.7% and 7.9%,  $p < .05$ ) prior to injury, whereas twice as many females reported developing chronic pain after injury than males (68.3% and 31.0%,  $p < .001$ ). Further, while about 21% of both male and female respondents reported experiencing other mental health conditions, such as anxiety, prior to injury, over 35% of males and almost 58% of females experienced mental health concerns after injury. Additionally, balance/mobility issues, sleep disorders, sensory issues, and cognitive challenges were frequently identified post-injury conditions. Co-morbidities impact our experiences, capabilities, and quality of life as we age. Policies and programs to support TBI survivors and their families may better address the co-occurring health conditions among TBI survivors by considering gender differences in the experience of aging with a TBI.

#### GUARDIANSHIP AND SELF-SOVEREIGN IDENTITY: IMPLICATIONS FOR PERSONS LIVING WITH DEMENTIA

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Self-sovereign identity (SSI), an identity management system where individuals own and manage their digital identity, can improve access and management of one's personal data. SSI is becoming feasible for the general public to use for their health and other personal data. Like any data system, when persons living with dementia no longer have capacity to provide informed consent, guardianship over their data is required. The purpose of this study was to examine the concept of guardianship within the context of SSI, specifically its application to persons living with dementia. This study followed a qualitative description approach. Seventeen semi-structured virtual interviews were conducted with persons living with dementia and care partners to elicit their perspectives on existing guardianship practices and guardianship within the context of SSI. Interviews were digitally recorded and transcribed verbatim. Conventional content analysis guided the analytic process. Participants had mixed impressions of existing guardianship practices. While some were positive, others thought existing practices failed to consider the complexity of caring for someone with dementia (e.g., presence of multiple guardians). Participants suggested that SSI has the potential to improve the security and safety of persons living with dementia who have had guardianship enacted (e.g., reduced risk of financial abuse.) Recommendations included ensuring that SSI guardianship processes are simple and flexible, building a user-friendly system that also considers the heterogeneity of persons living with dementia and their care partners. Overall, guardianship within the context of SSI was well received. Findings will be used to further inform the SSI guardianship processes.

#### MARGINAL EFFECTS OF MULTIPLE YEARS OF VOLUNTEERING ON OBJECTIVE AND SUBJECTIVE MEASURES OF COGNITION

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Volunteering is conducive to older Americans' physical and mental health; however, the effect of volunteering on cognitive health is less studied. Using four waves (2010-2016) of the Health and Retirement Study, this study examined the incremental effect of volunteering engagement on older adults' cognitive health. We included 10,718 cognitively unimpaired, community-dwelling individuals aged 51+ in 2010 and were alive through 2016. Volunteering engagement was measured by the number of times respondents participated in volunteering throughout the four waves. Objective cognition was assessed using the Telephone Interview for Cognitive Status (TICS), a standardized test of cognitive functioning. The TICS score was further categorized into three statuses: "No impairment," "Cognitive impairment no dementia (CIND)," and "Dementia." Subjective cognition referred to self-rated memory on a 5-point Likert scale. With sampling weights, ordered logit regression was performed controlling for health-related variables (e.g., health conditions, depression), SES (e.g., income, assets), contextual features (e.g., neighborhood safety, urbanicity), and sociodemographics. The average marginal effects (AMEs) were produced. Results show that more volunteering engagement significantly reduced the likelihood of CIND or dementia (OR=0.88,  $p < 0.001$ ). Specifically, every one-time increase in volunteering increased the probability of remaining cognitively normal by 0.01 ( $p < 0.001$ ), whereas it decreased the probability of CIND by 0.008 ( $p < 0.001$ ) and dementia by 0.001 ( $p < 0.001$ ). For subjective cognition, there was no significant relationship with volunteering. Our findings address gaps in literature by adding evidence of the incremental health benefits of volunteering on cognitive functioning. Differences in the findings for subjective and objective cognition warrant further investigation.

#### SOCIALLY RELEVANT APPROACHES TO THE DETECTION OF DEMENTIA IN MINORITY OLDER ADULTS

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Substantial gaps remain in the scientific literature regarding low-income minority older adult populations with Alzheimer's disease and related dementias (ADRDs). Access to care and early cognitive screening are often barriers to advancing ADRD detection in low socioeconomic status (SES) minority older adults. Additionally, there is the need for demographically (age, education, sex, race, ethnicity, and income) corrected normative scores in cognitive

measures. Our cross-sectional study evaluated the psychometrics of the Mini-Mental State Exam-2 (MMSE-2) and the NIH Toolbox Cognition Battery (NIHTB-CB). The sample consisted of  $n=80$  community-based older adults without a diagnosis of dementia living in low-income high-rise housing units. Acceptability is assessed with a brief 6-item acceptability survey, multiple linear regression is used to get predicted cognitive scores adjusted for age, education, income, ethnicity, race, and sex, and t-test comparison of the adjusted scores found in this study to established norms. Results found a mean age of 73, 70% black, 48% with < 12th-grade education, 51% have a monthly income of < \$1,000, and 49% with undiagnosed cognitive impairment (CI) by both measures. When applying demographic adjustments in the NIHTB-CB 1) standard scores; 2) age-corrected scores, and 3) demographically correct scores all remained significant ( $p > 0.0001$ ). Participants reported high (80-95%) acceptability for the community-based cognitive screening, 18% reported concerns with cultural appropriateness of the questions in the NIHTB-CB as compared to 5% with the MMSE-2. This research lays the foundation for a community-based cognitive screening and care coordination program for the low SES minority older adult population.

#### THE ROLE OF SOCIOECONOMIC INEQUALITIES IN TRANSITIONING TO NEUROCOGNITIVE DISORDERS IN ENGLISH POPULATION

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The association between socioeconomic position (SEP) and dementia is well studied. However, scant attention has been given to the relationship with mild cognitive impairment (MCI), often considered a transient state between normal cognition and dementia. The purpose of this study was to determine the role of various SEP markers such as education and wealth on transitioning to MCI and dementia over a four-year period using data from the English Longitudinal Study of Ageing, a national representative sample of the English population aged 50+. We ascertained MCI and dementia over four years, using a validated algorithm based on physician diagnosis and lower cognitive performance (1 standard deviation below the mean) on multiple standardised tests adjusted for age and education. A Multistate Markov survival model was utilised to investigate whether different SEP markers increased the risk of specific transitions between normal cognitive performance and MCI or dementia, with the latter being considered an absorbing state. During the study period, a quarter of participants progressed to MCI from the normal state. Being in the lowest quintile of wealth was associated with a lower probability of transitioning back to a normal cognitive state from MCI, compared with those in the highest quintile. Greater wealth was weakly associated with a lower risk of transitioning from normal cognitive state to MCI and from MCI to dementia. The overall results imply that socioeconomic advantage might be protective against rapid progression from mild to more severe neurocognitive disorders such as dementia in later life.