

differences can bias estimates of the influence of dementia. This study aims to investigate how dementia influences disposition, mortality rates and readmission rates at 365 days after hip surgery in older adults over age 65, after accounting for baseline factors such as socioeconomic status, health behaviors, co-morbidities, and type of hip fracture repair. A cohort of 1172 patients who had hip fracture surgery between October 2015 and December 2018 was extracted from electronic health records; among those, 376 had a diagnosis of dementia. Inverse probability of treatment weighting using propensity scores method was used to reduce the influence of factors that may confound the relationship between dementia status and hip surgery outcomes. Logistic regression was applied to estimate influences on discharge disposition and Cox proportional hazards model for one-year mortality. To account for competing risk of death, a Fine and Gray regression model was used to calculate subdistribution hazard ratios of readmission. Disparities in long-term surgical outcomes in patients with dementia were found. Results show that dementia was a significant predictor for being discharged to facilities (OR=1.92, 95% CI 1.09, 3.39, $p=.025$), death (HR=1.98, 95% CI 1.50-2.62, $p<.0001$) and being readmitted within one year (HR=1.31, 95% CI 1.15-1.50, $p<.0001$). These findings call for more efforts in developing effective multidisciplinary perioperative assessments and rehabilitation for patients with dementia.

INTERVENTIONS TO REDUCE STIGMA OF DEMENTIA: FIRST INSIGHTS FROM A RURAL COMMUNITY-BASED PARTICIPATORY STUDY

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Age is the greatest risk factor for dementia, and the number of rural older adults is rising. Although dementia-related stigma is widely documented, few studies focus on ways to reduce stigma, especially within rural communities. This late breaker presentation aims to: 1) explore the contributing factors of dementia-related stigma in rural communities; and 2) identify interventions to reduce stigma of dementia in rural communities. Drawing on a community-based participatory approach, data were collected through semi-structured interviews with 18 older adults, and a focus group with 7 community leaders in rural Saskatchewan, Canada. Thematic analysis was used to identify key themes and patterns within the data. Contributing factors of dementia-related stigma ranged from fear to lack of dementia knowledge. Several anti-stigma interventions were identified including: forming support groups; hosting educational workshops; inviting guest speakers with dementia; talking openly about dementia; learning more about dementia; asking questions; sharing your lived-experiences; being inclusive; developing inter-generational programs; and avoiding assumptions and hurtful jokes. As the rural population ages, there is a growing need for interventions, programs, and policies to address stigma of dementia. Engaging in rural partnerships and collaborative research is essential to developing community-informed strategies to reduce dementia-related stigma and improve the quality of life for people with dementia.

LIFESTYLE INTERVENTIONS FOR PERSONS WITH DEMENTIA: SINGING YOUR WAY TOWARD WELLNESS

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Arts-based interventions represent an inexpensive, non-pharmacological, and non-invasive approach to help mitigate negative symptoms and improve quality of life for persons with dementia (PwD). The present study examined whether a social singing intervention can modulate patterns of cognitive change and whether select biopsychosocial indicators exhibit concomitant within-person time-varying covariation. Participants with dementia ($n=32$, mean age=79.6 years; 53% female) engaged weekly in the Voices in Motion project, an intergenerational, social-cognitive choral intervention spanning up to 18 months and 9 individual assessments. The Mini Mental State Examination (MMSE), gait velocity, and positive and negative affect were assessed using an intensive repeated-measures design, with multilevel models of change employed to disaggregate both between- and within-person effects. Across months of the social intervention, several significant within-person time-varying associations were observed; on occasions when a given individual performed one unit faster on gait velocity ($p<.05$) or one unit lower on negative affect ($p<.01$), relative to their personal average, there were corresponding improvements in cognitive function. Notably, in contrast, MMSE change remained relatively stable over the course of the 18-month intervention (-0.105 , $p=0.12$), with little between-subject variability in rates of change. These findings imply that, within-persons, reducing comorbidities associated with dementia (e.g., elevated negative affect and its corresponding impact on cognitive resource competition) through participation in a lifestyle intervention may facilitate increases in cognitive, physiological, and psychological function. Implications are discussed with regard to the merits of invoking virtual lifestyle interventions for socially isolated individuals (e.g., PwD and those in residential care).

PAIN INTENSITY AND UNPLEASANTNESS IN PEOPLE WITH VASCULAR DEMENTIA: A CROSS SECTIONAL STUDY

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Pain is a multidimensional sensory and affective experience. People with Vascular Dementia (VaD) experience pain more intensely and have negative emotional responses. Further investigation is needed to understand the neurobiology of pain in VaD. We used experimental thermal pain in a cross-sectional design to determine if adults (age>64) with probable VaD experience increased pain intensity and increased pain unpleasantness during "mild" and "moderate" thermal pain. The final sample included 46 sex- and age-matched adults (23 VaD; 12 female) and controls (23 cognitively intact; 12 female) with an average age of

76.5 years (SD=7.5). Participants reported no daily analgesic use. We used a thermode placed on the thenar eminence to assess temperatures perceived as mild and moderate pain (°C) followed by unpleasantness ratings (0-20 scale). We assessed cognition and depression with the Mini-Mental State Exam (MMSE) and the Geriatric Depression Scale. After controlling for depression, and relative to controls, there was no statistically significant difference in the temperature at which people with VaD perceived mild or moderate pain ($p = .086$; Cohen's d : mild=0.55, moderate=0.27). However, there was a statistically significant effect of VaD status on pain unpleasantness ($p = .003$). People with VaD reported mild and moderate pain as more unpleasant than controls (Cohen's $d = 0.79$ and 0.60 , respectively). Findings support previous work that people with VaD are at risk of experiencing more pain. Assessing pain intensity and affect can avoid under-treated pain in those with VaD.

PRE-STROKE DEMENTIA AND IN-HOSPITAL OUTCOMES IN THE CHINESE STROKE CENTER ALLIANCE

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Little is known about the prevalence of pre-stroke dementia in China and whether this group is at higher risk of adverse in-hospital outcomes. We aimed to understand this association using data from the Chinese Stroke Center Alliance. Multivariable logistic regressions were conducted to assess the association between pre-stroke dementia status and ambulation at day 2, in-hospital mortality, and in-hospital complications. Covariates included age, sex, medical history, history of smoking, history of alcohol use, medication history (antiplatelet drugs, lipid-lowering drugs), stroke severity (measured by the National Institute of Health Stroke Scale), whether IV tPA was administered within 4.5 hours, and whether the patient received deep vein thrombosis prophylaxis as needed. Odds ratios and 95% confidence intervals were presented for the adjusted models. In the final analytic sample of 559,070 ischemic stroke patients with no prior stroke history enrolled across 1476 hospitals, 1511 (0.3%) had pre-stroke dementia, and they were older and more likely to be female. Patients with pre-stroke dementia had lower odds of ambulating at day 2, higher odds of having any complications and higher odds of in-hospital mortality compared to those without pre-stroke dementia, despite little difference in treatment received. Our findings may be explained by communication barriers experienced by patients with pre-stroke dementia that limited their ability to advocate for their own care needs. Further research is needed to determine whether a different care pathway or additional attention from clinicians is necessary for patients with pre-stroke dementia.

RESEARCH PARTICIPANT INTEREST IN ALZHEIMER'S DISEASE BIOMARKER DISCLOSURE

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Researchers can characterize the pathophysiological progression of Alzheimer's disease (AD) even in the absence of symptoms. As we better understand the role of biomarker accumulation in the clinical manifestation of AD, disclosing personal biomarker information will become increasingly relevant. Yet, interest and preferences for AD biomarker disclosure are not well understood. We developed a 30-minute phone survey to gather information from Black and white participants on likelihood to enroll in biomarker disclosure studies, reasons for enrolling, and potential outcomes following a hypothetical positive result. Data were collected from cognitively healthy participants ($n=334$, mean age=64.8±7.7, 45% Black) enrolled in the Wisconsin Alzheimer's Disease Research Center or Wisconsin Registry for Alzheimer's Prevention. 49.7% of participants were very or extremely likely to enroll in an AD biomarker disclosure study. This result varied by biomarker method, with about half the sample very or extremely likely to enroll in PET scan disclosure (45.5%), fewer likely to enroll in cerebrospinal fluid disclosure (32.2%), and a majority likely to enroll in blood-based biomarker disclosure (86.2%). The most important reasons for learning biomarker results included informing lifestyle changes to help prevent dementia (82.9% responded very or extremely important) and knowing more about personal AD risk (69.1% responded very or extremely important). These results suggest that as biomarker collection method burden decreases, willingness to participate in a biomarker disclosure study increases. Further, personal dementia prevention and risk are a strong motivator for learning biomarker results. Moving forward, these results may inform AD biomarker protocol development.

SEX-SPECIFIC BDNF AND APOE ε4 GENOTYPE INTERACTIONS ON WHITE MATTER HYPERINTENSITY VOLUME

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The apolipoprotein E (APOE) gene is the strongest genetic risk factor for late-onset Alzheimer's disease (AD). One variant of the brain-derived neurotrophic factor (BDNF) gene also confers higher risk of AD. APOE and BDNF genotypes may have interactive effects on AD pathology. The aim of this study was to determine whether APOE and BDNF genotype differentially impact white matter hyperintensity volume (WMHV). We used data from 212 cognitively unimpaired individuals from the Alzheimer's Disease Neuroimaging Initiative (ADNI) We used generalized linear models to predict WMHV from BDNF genotype and an interaction with APOE. Sex, age, education, vascular risk, and imaging-based amyloid load (Florbetapir SUVR) were used as covariates. WMHV was derived by using the Lesion Segmentation Toolbox (LST) in SPM12 with a threshold of $k = 0.15$. We used the Hachinski Ischemic Scale to measure for vascular risk. We found no significant interaction of BDNF-APOE on WMHV ($\beta = 0.40$, 95% CI: (-0.39, 1.20), $p = 0.32$). In sex-stratified analyses the BDNF-APOE interaction was significantly associated with WMHV in males ($\beta = 1.14$, 95% CI:(0.17, 2.11), $p = 0.02$), but not in females ($\beta = -0.37$, 95% CI: (-1.47, 0.76), $p = 0.50$). For males, carriers of both BDNF Met and APOE ε4 alleles had the highest WMHV. Sex-specific differences in BDNF expression may be related