

little is known about cognitive correlates; the identification of which may suggest therapeutic targets. Aims of this study are to examine the hypothesis that the relationship between cerebrovascular burden and depressive symptoms is moderated by brooding, a type of rumination. Method: A sample of 52 community-dwelling, stroke-free, individuals over the age of 70, without history of severe mental illness or dementia completed the Ruminative Responses Scale, and provided self-report (cardiac disease, hypertension, diabetes, high cholesterol) CVB data. The Geriatric Depression Scale was used to assess depressive symptomatology. Results: Results of a bootstrapped model were that self-reported measures of CVB predicted depressive symptomatology. This relationship was significantly moderated by brooding. Among older adults, those who self-reported high CVB and medium to elevated levels of rumination experienced disproportionately more depressive symptomatology. Conclusions: These findings suggest that brooding rumination may be one correlate of the vascular depression syndrome. Future research should examine neuroanatomical correlates of rumination among older adults, and further explore brooding as a therapeutic target for those with late-life depression.

#### SMART HOME TECHNOLOGY FOR OLDER ADULTS WITH MOBILITY DISABILITIES: POTENTIAL AND CHALLENGES

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Recently, there has been a significant expansion in the number of smart and connected technologies for assisting individuals with a variety of tasks within the home. Examples include digital home assistants (e.g., Amazon Echo), smart lights, smart plugs, robotic vacuums, as well as a multitude of other devices. Such technologies hold the potential to support independence for older adults with long-term mobility disabilities, as they may experience challenges engaging in daily activities. The aim of the current study was to utilize a comprehensive approach with an interdisciplinary team to improve understanding of how to integrate smart technology into older adults' homes. We focused on identifying functionality that would be useful to them, understanding their perceptions, and developing instructional support. We conducted interviews among older adults with, and without, long-term mobility disabilities to better understand their attitudes towards digital assistants, identify needs for instructional support, and test the usability of our instructional protocol. The overall goal of this research is to improve understanding of older adults' perceptions of these technologies and identify usability challenges within the home. The instructional protocol offers support by reducing the identified barriers to initial adoption and continued use to promote aging-in-place and improving overall quality of life for older adults with long-term mobility disabilities.

#### BARRIERS TO ORAL HEALTH IN THE OLDER POPULATION

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A strong challenge is posed for patients and their caretakers by the growing need for promoting oral healthcare for this population, as research substantiates the connection between oral health and systemic health. This study identified the major barriers to providing optimal oral care to the older population. Fifty patients aged 60 and over visiting the Columbia University College of Dental Medicine Clinic were administered a questionnaire which reflected possible barriers to oral health care. Statistical analysis of data revealed that the top three barriers in order of relevance were the (1) cost of treatment, (2) anxiety, and (3) transportation. The youngest old (60-69) indicated that the lack of time and conflict with work schedules were additional barriers, while the older sample (70+) experienced obstacles due to disability and illness. When gender differences were analyzed, transportation was the most significant as a barrier among males, and fear/anxiety was most significant for females. Ethnically, non-Hispanics indicated that (1) shortage of time, (2) anxiety, and (3) lack of social/physical support were significant barriers. Findings indicated that even those with Medicaid insurance coverage believed that the cost of dental treatment and caregiving responsibilities were major barriers to seeking care. Conversely, even those without dental insurance indicated that disability and illness were barriers to seeking care. This pilot study highlighted various barriers to oral health care and highlighted the need for intervention to address barriers, such as social services, expanded Medicaid coverage, and transportation assistance, to ultimately improve access to optimal oral health care.

#### LONG TERM OUTCOMES OF THE IN-HOSPITAL MOBILITY INTERVENTION (WALK FOR) IN A SAMPLE OF OLDER ADULTS

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Evaluation of in-hospital mobility programs is usually short-term. To examine the sustainability of Walk-FOR (Walk for Outcome and Recovery), an in-hospital mobility program in internal-medicine older (70+) patients, we conducted a quasi-experimental pre-post four-group comparative study. Walk-FOR incorporated policies encouraging patients to walk more than 900 steps/day and addressed conditions limiting patients' in-hospital mobility. Self-reported mobility was assessed in intervention (N=159), control (N=154) and two-year follow-up groups: previous-intervention (N=75) and non-intervention (N=95) units. Two-years post-implementation, in previous-intervention units 82.7% of patients reported walking at least twice a day outside their room, similarly to the within-implementation intervention phase (81.2%, p=ns) and significantly more than in the control group (57.2%, p<.0001). No differences in walking were found between intervention and non-intervention units (84.2%, p=ns) two-years post-implementation. Multivariate

analysis comparing 4 study groups applying logistic regression with covariance of age, sex, walking and function ability at admission, comorbidities and length of stay demonstrated similar results. Patients from intervention units two years after its implementation had a higher odds of walking at least twice a day outside their room (OR=3.82, 95% CI 1.636-8.899,  $p=0.002$ ) than patients from the same units before intervention. Logistic regression didn't show significant differences between probability of walking at least twice a day outside their room in the group evaluated immediately after intervention implementation and two-years later. Also there were no significant difference between not-intervention and intervention units two-years post-intervention. Walk-FOR is a sustainable practice and tends to spread to additional hospital-units probably due to hospital leadership and organizational commitment.

#### DISPARITIES IN DEPRESSION AMONG CHINESE OLDER ADULTS WITH NEURODEGENERATIVE DISEASES

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Depression is a major health issue among older adults, and it exerts negative impacts on them physically and mentally. In turn, various factors facilitate or impede the occurrence of depression, socially, economically and culturally. At the same time, neurodegenerative diseases have become a leading cause of death and disability worldwide. In China, the incidence rate of Parkinson's disease among older adults aged 65 and older is 1.7%, which means 100,000 new cases occur each year, more than 2.5 million in total. Meanwhile, 3.21% of incidence rate, more than 8 million older adults aged 65 and older with Alzheimer's Disease and Related Dementia (AD/RD) makes China become the largest and fastest-growing area of AD/RD in the world. Around 2050, Chinese older adults with AD/RD will exceed 20 million. However, little is known about the extent to which older adults with Parkinson's or AD/RD in China will suffer from depression. This study was conducted on the latest wave (2011-2014) of the Chinese Longitudinal Healthy Longevity Survey (CLHLS, 1998-2014). The sample included 334 Chinese older adults aged 65 and older with neurodegenerative diseases (Parkinson's or AD/RD). A univariate and binomial hierarchical logistic regression were performed. Result showed that 13.5% ( $n = 45$ ) participants reported depression. Several covariates were significantly correlated with the occurrence of depression, including: co-residence of interviewee, activity level, level of chronic diseases, self-reported health status and Instrumental Activity of Daily Life. Implications for research, policy, and practice are discussed.

#### AGE-RELATED ELEVATED CD4+ T HELPER 17 CELL RESPONSE PROMOTES PROSTATE CANCER CELL GROWTH, MIGRATION, AND INVASION

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Age is the most important risk factor for prostate cancer (PCa). But, how age contributes to PCa remains unknown.

Interleukin-17 (IL-17) -producing CD4+ T helper 17 (Th17) cells play a critical role in inflammatory diseases. It is often elevated in aging humans and mice, however, whether aging affects Th17 cell function and subsequent PCa risk increase is unclear. In this study, we investigated the role of CD4+ T cells in PCa cell growth during the aging process. Splenic T cells were isolated and purified into CD4+CD25- T cells from young and old mice, then cultured in the presence of plate-bound anti-CD3/anti-CD28. Four days later, the cells were re-stimulated with PMA and ionomycin in the presence of brefeldin A for 4 hours and then were collected and used for flow cytometry and/or qPCR. The supernatant (conditioned media) from young and old cultures was collected and used in subsequent experiments. Flow and qPCR results showed that 17-producing T cells and associated cytokines were significantly increased in old mice compared to young mice. When PCa cell lines (LNCaP, DU-145, and PC3) were treated by the conditioned media for 48 and 72 hours. The cell proliferation, migration, and invasion, as well as the activation of NF- $\kappa$ B signaling in PCa cells, were significantly increased after exposure to the conditioned media from aged mice, compared to that from young mice. These results indicated that age-related CD4+ Th17 cell responses are elevated in mice in the aging process and play an important role in PCa growth.

#### DISPARITIES IN DEPRESSION AMONG CHINESE OLDER ADULTS

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Depression has become one of the major health issues among older adults. In turn, various factors can facilitate or impede the occurrence of depression, socially, economically and culturally. Around 2050, China will have 487 million older adults or nearly 35 percent of the total population. Due to the different background of society, economy and culture, what explanations and knowledge can China provide based on present experiences and practices to help better understand depression among older adults from more comprehensive way? This study was conducted on the latest wave (2011-2014) of the Chinese Longitudinal Healthy Longevity Survey (CLHLS, 1998-2014). The sample included 7,107 Chinese older adults age from 65 to 117 years in China. A binomial hierarchical logistic regression was performed to examine the likelihood of having depression among older adults predicted by geographic characteristics, quality of life, chronic diseases, personal community services, social community services, and demographic variables including gender, age, and current marital status. Analysis indicated that approximately 10% of Chinese older adults in the sample reported depression. Compared to female and young-old adults (age 65-74), males (OR=.636,  $p<.001$ ) and oldest-old adults (age 95+) (OR=.822,  $p<.001$ ) were less likely to have depression. Older adults who lived in rural areas (OR=.681,  $p<.001$ ) showed less likelihood of having depression. Older adults who had better life quality (OR=.553,  $p<.001$ ) revealed less likely to have depression. Having social services in the community (OR=.908,  $p<.05$ ) significantly lowered the likelihood of having depression among Chinese older adults. Implications for research, policy, and practice are discussed.