older residents (aged 50+ years) in the Circumpolar North to identify a definition of healthy aging common in the region. A thorough review was conducted across a variety of academic search databases for peer-reviewed, qualitative studies conducted among community-dwelling older adults. The search strategy initially identified 194 articles; 23 articles met the inclusion criteria. Included studies were coded and analyzed using Grounded Theory to examine underlying themes of healthy aging in the Circumpolar North. The findings reveal the importance older adults place on respect, their relationship to the land, and psychosocial resilience into multidimensional models of healthy aging. We present a complex concept map demonstrating how healthy aging perspectives fit together into a multidimensional model of health in the Circumpolar North. This research also highlights the need for increased translational research with populations in the Circumpolar North that are under-represented in the literature.

AGING AND FEELING CURIOUS: A TIME-SAMPLING STUDY

Li Chu,[1] and Helene H. Fung[2], *1. The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong, 2. Chinese University of Hong Kong, Hong Kong, Hong Kong*

Curiosity is commonly defined as "the desire for new information and experience." While curiosity has been associated with numerous positive outcomes (e.g., improved well-being, better cognitive performance and longer life expectancy, some studies suggested that curiosity declined with age. However, very few studies actually attempt to examine why curiosity may be lower among older adults. Moreover, scholars disagreed on "why" people feel curious. According to the dual process theory (Spielberger & Starr, 1994), curiosity is induced by optimal level of uncertainty and anxiety with the desire to reduce these aversive feelings. However, the personal growth facilitation model (Kashdan, Rose, & Fincham, 2002) posits that people are curious intrinsically for one's own growth, which is associated with positive affects. Therefore, the present study aims to examine age differences in the affective profile of feeling curious by comparing the momentary affective experience of curiosity between younger and older adults. In this study, we conducted a 2-week time-sampling study with 78 younger adults (age 19-29) and 79 older adults (age 60-85) from Hong Kong. Multilevel modeling analyses demonstrated a positive relationship between curiosity and positive emotions for both younger (β=.29, p<.01) and older adults (β=.70, p<.01). Interestingly, anxiousness was positively associated with younger adults' curiosity (β=.09, p=.01) but not for older adults (β=.06, p=.29). Our study supported both theories, but suggested that one may be more dominant among older adults. These findings have important implications for future interventions to reduce anxiousness to encourage older adults to keep an open-minded attitude towards novelties.

RACE AND ETHNICITY DISPARITIES IN SUBJECTIVE COGNITIVE DECLINE

Nia Reed,[1] Christopher A. Taylor,[1] Benjamin Olivari,[2] Karen Wooten,[3] and Lisa C. McGuire[4], *1. Centers for Disease Control and Prevention, Atlanta, Georgia, United States, 2. CDC, Atlanta, Georgia, United States, 3. DB Consulting, Silver Springs, Maryland, United States, 4. Centers for Disease and Prevention, Alzheimer's Disease and Healthy Aging Program, Atlanta, Georgia, United States*

Alzheimer's disease (AD) is the most common form of dementia. Subjective cognitive decline (SCD) is the self-reported experience of worsening or more frequent confusion or memory loss and it is one of the earliest noticeable symptoms of AD. Data from respondents aged 45 years and older to the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System Cognitive Decline module were examined to identify race and ethnicity disparities in SCD. This module was administered by 49 participating states, District of Columbia, and Puerto Rico from 2015-2018. Data were analyzed using SAS statistical software and methods that accounted for survey design and weighted data. Prevalence of SCD by race/ethnicity with 95% confidence intervals (CI) was calculated. Among adults aged 45 years and older, one in nine (10.8%; CI=10.5-11.2) non-Hispanic white adults experienced SCD. In comparison, among adults aged 45 years and older, one in nine (11.2%; CI=9.8-12.7) Hispanic, one in eight (13.2%; CI=12.0-14.3) African American/black, and one in five (19.6%; CI=16.0-23.2) American Indian/Alaska Native (AI/AN) adults experienced SCD. These numbers are expected to increase significantly over time, especially for some minority groups. More specifically, Hispanics and African Americans are expected to constitute a large proportion of older adults in the coming decades. There are implications in how communities are reached with respect to awareness of cognitive decline (this includes AI/AN adults, as well). Race and ethnicity disparities in SCD may be influenced by differences in chronic diseases and other risk factors that are also disparate between communities.

ETHNIC DIFFERENCES IN THE RELATIONSHIP BETWEEN SOCIAL CAPITAL AND PSYCHOLOGICAL DISTRESS IN OLDER CALIFORNIANS

Nenette A. Caceres,[1] Qais Alemi,[1] Larry Ortiz,[1] and Carl Stempel[2], *1. Loma Linda University, Loma Linda, California, United States, 2. California State University, East Bay, Hayward, California, United States*

Seniors aged 65 and older are at great risk of psychological distress given their functional decline, which is known to limit participation and engagement in community life. The purpose of this study is to examine whether higher indices of social capital have a positive impact on the mental health of older, ethnic Californians. We conducted a secondary analysis of data for 7,485 Californians 65 and older from the 2016 California Health Interview Survey (CHIS). A principal components analysis generated two social capital measures; one measuring safety and social cohesion, the other civic engagement. Hierarchical linear regression analyses were conducted to assess the independent effects of social capital subscales on the severity of psychological distress as measured by the Kessler-6 (K6).Respondents were on average moderately distressed, with small yet significantly higher K6 scores observed among African Americans, Asians, and Native Americans. The addition of our social capital variables in subsequent steps resulted in little yet significant change in explaining psychological distress (ΔR2 = .02,

p < .001) with only neighborhood safety and social cohesion being inversely associated with K6 (β = -.15, p < .001). The interaction between ethnicity and neighborhood safety and social cohesion resulted in non-significant associations with K6 scores for all ethnic minority subgroups; however, for African Americans the relationship with psychological distress actually increased significantly (β = .24, p < .001). Our findings suggest that specific types of social capital may be helpful in remediating psychological distress for certain ethnic minority groups.

INCREASED C3 IN THE AGING BRAIN PROMOTES INFLAMMATORY TRANSITION IN ENDOTHELIAL CELLS

Nicholas E. Propson,[1] Alexandra Litvinchuk,[1]
Ethan R. Roy,[1] Bianca Contreras,[1] Wei Cao,[1] and
Hui Zheng[1], *1. Baylor College of Medicine, Houston, Texas, United States*

Innate immunity has been implicated in normal aging, and age-related disease. The connection between age-related neuroinflammation and change in brain vasculature prior to disease onset remains poorly understood. The complement pathway is an established mediator of neuroinflammation, and increased complement C3 is seen in the aging brain. Thus, we asked whether C3 can promote changes in brain vasculature. We found age dependent increase of brain C3 levels in C57BL/6J mice. Furthermore, we found an increase in expression of adhesion molecule VCAM-1 in endothelial cells (ECs) of the cortex and hippocampus, which was rescued in aged C3a receptor null (C3ar1-/-) mice and aged C3a receptor (C3aR) antagonist treated mice. We confirmed these results by qPCR analysis for Vcam1 in sorted ECs. Human brain microvascular endothelial cells (HBMECs) treated with C3a showed increased expression of VCAM-1, but not other adhesion molecules. Sorted ECs from C3ar1-/- mice challenged with LPS confirmed these findings. Furthermore, C3aR signaling in ECs showed increased blood-brain barrier (BBB) permeability using trans-endothelial electrical resistance (TEER), and BBB impermeable dye injections. HBMECs treated with C3a revealed mis-localization of VE-Cadherin, followed by reduction in protein level when analyzed by immunofluorescence, which promotes increased barrier permeability. As a functional consequence of VCAM-1 expression and increased BBB permeability we found aged mouse brains have increased peripheral lymphocyte (CD45+/CD11b-) infiltration, which was reduced in a C3aR dependent manner. In conclusion, our work suggests there is a strong relationship between C3 expression and vascular C3aR contributing to a functional transition in endothelial cells during aging.

RETURNING THE FAVOR: EXPECTATIONS OF CAREGIVING RECIPROCITY AND DEPRESSIVE SYMPTOMS AMONG GRANDPARENTS

Cindy N. Bui[1], *1. University of Massachusetts Boston, Boston, Massachusetts, United States*

This study draws upon social capital and intergenerational reciprocity concepts to better understand how grandparents' depressive symptoms are related to their provision of grandchild care, within the context of their expectations regarding adult children reciprocating caregiving needs in the future. Analyses used the 2014 Health and Retirement Study dataset. The sample consisted of 9,612 grandparents, 2,595 of whom were providing grandchild care. Linear regression models were used to analyze how depressive symptoms were influenced by grandchild care provision and expectations of future care from adult children. Future care is measured as expectations from (1) any adult child, and (2) from the same adult child for whom the older parent provides grandchild care. Provision of grandchild care was not significantly related to grandparents' number of depressive symptoms. Among grandparents who provided grandchild care, both expecting any adult child and expecting the same adult child were associated with reporting fewer depressive symptoms. Expecting any adult child to provide future care showed a stronger effect than expecting the same adult child to provide future care. The results suggest that expectations of general reciprocity within the family system, rather than specific dyadic reciprocity, may be more important for a caregiving grandparent's emotional well-being. Providing grandchild care while expecting future care from adult children can indicate a sense of social capital within an intergenerational family system. Expecting support reciprocity from adult children may be a protective factor that allows caregiving grandparents to feel more secure about their future care needs, and consequently, less depressed.

HIPPOCAMPAL GLUTAMATE MODULATION DURING MEMORY ENCODING: ASSOCIATION WITH AGE AND SUBFIELD VOLUMES

Chaitali Anand,[1] Roya Homayouni,[1] Qijing Yu,[1]
Sruthi Ramesh,[1] Dalal Khatib,[1] Cheryl Dahle,[1]
Jeffrey Stanley,[1] and Naftali Raz[1], *1. Wayne State University, Detroit, Michigan, United States*

Hippocampal glutamatergic activity plays a pivotal role in memory consolidation, including the ability to form novel associations that declines with age. To test whether glutamatergic dysfunction may underpin age-related memory declines, we examined in vivo age differences in hippocampal glutamate modulation during encoding of associations, and its relationship with hippocampal subfield volumes. Proton functional magnetic resonance spectroscopy was performed on 32 young (25.1±2.8 years; 18 females) and 16 older (65.9±2.7 years; 7 females) adults to measure changes in hippocampal (randomly assigned right or left) glutamate during an object-location paired association learning task (with 12 cycles of encoding-retrieval epochs). Volumes of the dentate gyrus&CA3, CA1, subiculum, and entorhinal cortex were manually measured from T2-weighted MRI images. Memory performance differed between the age-groups [$F(1, 46)=8.56$, $p<.01$], with the older attaining a lower asymptote [$t(46)=2.93$, $p<.05$] compared to the younger. Age differences in glutamate were observed only during encoding (age-group x epoch: $F(3,137)=5.28$, $p<.01$), and varied over the epochs. Young adults showed increased glutamate during the first four encoding epochs of each cycle, with levels remaining high thereafter. Old adults evidenced a decrease in glutamate during the first four epochs, and a slow, sustained ramping-up afterwards. Including both age-groups, the maximum change in glutamate, calculated using the maximum and minimum levels during encoding, was positively associated with CA1 [$F(2,39)=4.28$, $p<.05$] and the dentate gyrus&CA3 volume [$F(2,39)=4.4$, $p<.05$], after correcting