

Associations between late-life social integration and health have been found to be reciprocal. The present study focuses on the direction of health predicting social integration as it is not yet fully understood how different aspects of health may affect social integration. Using two-wave data from a community-based sample ( $N = 413$ , mean age 80 at baseline), the present study investigates whether depressive symptoms, chronic health conditions, functional limitations, and self-rated health independently predicted multiple dimensions of social integration over two years. The results of multiple regression and path analyses indicated that self-rated health was the most consistent predictor for social integration over time as the other health measures predicted no or fewer dimensions of social integration. Subjective perception of health appeared to have greater implications for social integration over time than more objective health symptoms/conditions. These findings highlight the important role of subjective health for maintaining late-life social integration.

#### RELIGIOUS ATTENDANCE, SOCIAL SUPPORT, AND SELF-RATED HEALTH IN FORMER NATIONAL FOOTBALL LEAGUE ATHLETES

Robert W. Turner II,<sup>1</sup> Robert Turner,<sup>2</sup> Amanda Sonnega,<sup>3</sup> Tim Cupery,<sup>4</sup> Evelyn Bush,<sup>5</sup> Teri Rosales,<sup>6</sup> and James S. Jackson<sup>6</sup>, 1. *The George Washington University, Washington, District of Columbia, United States*, 2. *Center on BioBehavioral Health Disparities Research, Duke University, Durham, North Carolina, United States*, 3. *Institute for Social Research, Ann Arbor, Michigan, United States*, 4. *Fresno State, Fresno, California, United States*, 5. *Fordham, Bronx, New York, United States*, 6. *University of Michigan, Ann Arbor, Michigan, United States*

Concern exists about the health and well-being of football players, yet little research exists on the psychosocial risk and protective factors of NFL athletes' well-being. This study assesses the role of religious attendance, social support, and self-rated health in former NFL athletes. Data comes from a stratified, random sample of 1,063 former NFL players. A set of nested linear regression models evaluated the relationship between self-rated health status and two indices of social support (family and friends) and attendance at religious services. Frequent attendance at religious services ( $\beta=0.19$ ,  $p<.01$ ), support from family ( $\beta=0.06$ ,  $p<.05$ ), and support from friends ( $\beta=0.06$ ,  $p<.01$ ) are positively and significantly related to better self-rated health. The ability to get out of the house did not affect these associations. However, the pain symptoms index fully accounted for any positive effect of family support and religious attendance in self-rated health.

#### PHYSICAL VERSUS COGNITIVE ACTIVITY FOR SUCCESSFUL AGING: BRAIN MAINTENANCE OR COGNITIVE RESERVE?

Kaitlin Casaletto,<sup>1</sup> Kaitlin B. Casaletto,<sup>2</sup> Judy Pa,<sup>3</sup> Sarah Tom,<sup>4</sup> Miguel Arce-Renteria,<sup>4</sup> Amal Harrati,<sup>5</sup> Nicole Armstrong,<sup>6</sup> and Laura Zahodne<sup>7</sup>, 1. *University of California, San Francisco, San Francisco, California, United States*, 2. *UCSF, San Francisco, California, United States*, 3. *University of Southern California, Los Angeles, California, United States*, 4. *Columbia University, New York, New York, United States*, 5. *Stanford University, Stanford, California, United States*, 6. *NIH-NIA, Bethesda, Maryland,*

*GSA 2019 Annual Scientific Meeting*

*United States*, 7. *University of Michigan, Ann Arbor, Michigan, United States*

Mechanisms by which physical (PA) and cognitive (CA) activities promote healthy cognitive aging are unknown. We examined independent contributions of PA and CA to "brain maintenance" (MRI markers of brain integrity) versus "cognitive reserve" (better cognition than predicted by brain integrity) in two independent samples of non-demented older adults (UCSF  $n=344$ ; UCD  $n=482$ ). In UCSF, only PA was positively associated with white matter (WM) integrity, while CA attenuated the relationship between WM and cognition. This pattern suggests PA supports brain maintenance, while CA contributes to cognitive reserve. In UCD, CA was positively associated with total gray matter volume; PA was positively associated with age-related WM integrity, and attenuated the association between WM and cognition. This indicates that both PA and CA support brain maintenance, with PA more strongly related to cognitive reserve. There may be preferential, but overlapping pathways by which PA and CA maintain age-related brain and cognitive health.

#### SESSION 3210 (SYMPOSIUM)

##### MULTIMORBIDITY, MENTAL HEALTH, AND TERMINAL DECLINE IN LATER LIFE

Chair: Dorina Cadar, *University College London, London, United Kingdom*

Co-Chair: Lucy Stirland, *University of Edinburgh, Centre for Clinical Brain Sciences, Edinburgh, United Kingdom*

Discussant: Graciela Muniz Terrera, *University of Edinburgh, Edinburgh, United Kingdom*

The close interlink between physical and mental health outcomes has long been recognised in gerontological research. Mental-physical comorbidities – the presence of at least one physical health long term condition, and at least one mental health-related long term condition are common in older age individuals. Numerous studies have shown a positive association between the prevalence of multimorbidity and age so, as the population of older individuals in developed nations continues to grow, multimorbidity is likely to become increasingly higher in ageing populations. A major goal in current gerontological neuropsychology and neuroepidemiological research is to better understand how interindividual differences in cognitive and mental health in old age emerge. Cognitive reserve (a marker of brain resilience) may come into play when facing stressors that affect cognitive decline and mental health, such as suffering from chronic diseases. We present data from three different longitudinal studies of ageing i) the Lothian Birth Cohort of 1921, ii) PREVENT and iii) the English Longitudinal Study of Ageing from the United Kingdom. These studies are ideally placed to address key research questions related to mental ageing, psychological health, terminal decline and their determinants. We explored the following objectives: 1) to investigate the association between an increasing number of chronic physical conditions, medication and mental disorders 2) to assess the role of childhood intelligence and education on the terminal decline in later life 3) to investigate the associations between different markers of cognitive reserve and dementia