ABSTRACT

Recent research links exposure to chronic stress with poor cognitive function and decline but these studies have failed to consider how individual differences in subjective or perceived stress are associated with negative cognitive health outcomes. Further, studies on stress and cognitive function are comprised of primarily non-Hispanic white participants precluding considerations of how the observed associations operate among racially and ethnically diverse adults. This dissertation brings together findings from two studies to address these knowledge gaps in the stress and cognitive aging literature.

Using data from a repeated measurement-burst design, Study 1 examined the longitudinal association between perceived stress and cognitive slowing among 116 older adults between the ages of 67 and 96. Bursts of six daily cognitive assessments were repeated every six months over
a two-year period with measures of perceived stress provided at the start of every burst. Applying a double-exponential learning model to account for learning effects, two parameters were estimated: 1) asymptotic level (peak performance), and 2) asymptotic change (the rate in which peak performance changed across bursts). A latent growth curve analysis demonstrated that greater reports of perceived stress across the study period were associated with more rapid cognitive slowing across time.

Using data from a multi-center epidemiological study of Hispanic/Latino adults, Study 2 examined whether the negative stress-cognition association reported in the literature also holds for Hispanics/Latinos (N = 3,132) between 45 and 75 years of age. Applying epidemiological data analytic techniques to account for the study’s complex sampling design, this study found a negative association between self-reported chronic stress and cognitive performance as well as between self-reported acculturation stress and cognition. Tests of multiple indirect effects showed that negative repetitive thought and depressive affect differentially accounted for the stress-cognition associations.

Overall, this dissertation demonstrates the key role of psychological stress on poor cognitive function and change among middle aged and older adults and shows that Hispanics/Latinos may experience culture-specific stressors that elevate their risk for poor cognitive function. This dissertation also shows that repetitive thought and depressive affect are candidate mechanisms of the association between stress and cognitive function in aging adults.