

A.C. Heuerman, G.N. Chavez, M.C. Green, M. Huerta, J. Ov, P.L. Overton-Harris, F. Grace, C.M. Ko, L.E. Olson. *Use of a Modified Trier Social Stress Test to Assess an Undergraduate Meditation Course*. Society for Neuroscience Annual Meeting, San Diego, CA, 2013

Abstract

Anecdotal evidence suggests that undergraduate students who take the University of Redlands course Seminar on Compassion exhibit behaviors consistent with improved academic success: enhanced focus, goal-setting, resilience to stress, and general well-being. The course includes the practice of contemplative methods designed to generate compassion, such as those taught by Mother Teresa, Gandhi, and the Dalai Lama. We are using psychological measures of a variety of clinical and nonclinical outcomes such as anxiety, depression, self-compassion, compassion for others, locus of control, and general well-being. Additionally, we are measuring the physiological stress response in the laboratory. We modified the Trier Social Stress Test (TSST) in an attempt to closely mimic academic stress. We replaced the interview portion of the TSST with verbal GRE analogy questions, and included a neutral question period to control for the effect of speaking. Our pre-meditation course data shows that our altered version of the TSST was effective in reducing parasympathetic nervous activation (reduced high frequency heart rate variability), and increasing systolic and diastolic blood pressure, heart rate, and galvanic skin response. It did not induce a surge in salivary cortisol. This provides baseline physiological data which can be correlated to academic success before and after the meditation-based Seminar on Compassion course, so the effects of this course can be quantitated over time.