

## Effects of Exam Stress on Cognitive Ability & Working Memory

Sophie Joseph, Victor Catalan, El Russell,  
Monica M. Gaudier-Diaz, PhD & Keely A. Muscatell, PhD

Stress can negatively impact academic performance. To further explore this association, the present study examines the influence of exam stress on working memory. For this, we are having participants visit our laboratory for a baseline session on a week in which they do not have any exams and for a stress session on a day in which they have an exam for their hardest class. During each session, participants complete the digits-backwards and Stroop tasks, cognitive tasks designed to assess working memory. Preliminary analysis suggests that exam stress does not alter working memory, as we found no differences when comparing performance between the baseline and stress for either of the tasks. As this is an ongoing study, our null findings could be due to a small sample size ( $n=14$ ). Therefore, we anticipate that a greater sample size will potentiate the relationship between working memory and academic stress at the conclusion of the study. If stress negatively impacts cognition, on the day of a stressful exam students will perform worse on the tasks. In addition to examining the effects of exam stress on working memory, we are investigating psychological and physiological factors that might mediate the interaction between stress and cognition, in the hopes of identifying targets of intervention to attenuate the stress effects on academic performance.