Amy Knight, PhD

Dr. Knight is an Assistant Professor at the University of Alabama at Birmingham School of Medicine in the Department of Physical Medicine and Rehabilitation. She works as a neuropsychologist and rehabilitation psychologist at Spain Rehabilitation Center, seeing patients with traumatic or complex medical events on the Orthopedic and Medical Trauma Service.

Dr. Knight provides services to people experiencing a wide range of medical trauma, including fractures, burn, crush, amputations, and mild to moderate brain injury. Medical patients are also seen with conditions including peripheral weakness from infectious diseases, autoimmune disorders, cancer, cardiopulmonary conditions, post-surgical debility and neurodegenerative disease. In addition, Dr. Knight provides behavioral health services for the UAB Cardiopulmonary Rehabilitation Program, including counseling, support groups, and classes in coping skills and stress management.

Dr. Knight conducts neuropsychological evaluations for those patients with cognitive or behavioral problems related to their underlying brain disorder. Counseling is provided for patients with acute stress, PTSD and adjustment disorders following illness or injury. Counseling sessions may involve supportive contact, education, psychotherapy (individual and/or family), behavioral health strategies and/or crisis intervention. Patients are also referred for Post Concussive and PTSD evaluations.

Dr. Knight's research investigates the human neurobiological response to stress following acute trauma exposure (<30 days post event) with functional neuroimaging (fMRI) to predict susceptibility/resilience to PTSD. Pilot studies are underway to recruit volunteers in early days following a traumatic injury in the acute medical setting of UAB. This research uses a well-controlled paradigm to investigate the neural substrates of anxiety-related behavior in functional neuroimaging (fMRI). In this study, functional neuroimaging methods are used to determine the neural mechanisms mediating acquisition, expression, and extinction of fear memory processes in humans who have had recent in vivo exposure to an acute medical trauma. Utility of these mechanisms in predicting progression or resolution of acute stress symptoms at follow-up will be explored. The goal of this research is to identify the neurobiological mechanisms that mediate pathological and healthy emotion regulation and translate this work into therapeutic strategies for stress-based psychiatric conditions.