Corinne M. Martin

Undergraduate Louisiana State University, Baton Rouge, LA

Mentor's Name: Lisa Moreno-Walton, MD, MS Louisiana State University Health Sciences Center, Department of Emergency Medicine

"Assesment of Posttraumatic Stress Disorder Among Emergency Medical Services: A Survey Study Within an Urban Emergency Medical Service"

Emergency medical service (EMS) workers, including emergency medical technicians and paramedics, are usually the first medical providers on the scene of emergencies and disaster scenarios where they often face dangerous, challenging, and traumatic events. This workplace stress and exposure is strongly associated with greater rates of post-traumatic stress disorder (PTSD) and depression than the general population. Previous research has identified increased psychological distress in a population following natural disasters, but few studies have assessed the effects of experiencing these events on EMS mental health. The severity of psychological trauma experienced from working through both Hurricane Katrina and the subsequent recovery has important mental health implications for first responders. New Orleans was hit the hardest by Hurricane Katrina 15 years ago and is currently one of the epicenters of COVID-19. This study aims to identify the prevalence of PTSD in New Orleans EMS (NOEMS) workers who participated during Hurricane Katrina and/or the COVID-19 crisis as compared to the general population and assess if those exposure to those events helped build resiliency.

This study seeks to prove three hypotheses: similar to previous findings in the literature, we believe signs and symptoms of PTSD will be higher in individuals who work in NOEMS, signs and symptoms of PTSD are higher in NOEMS workers who worked during Katrina or COVID-19, and previous experiences of traumatic events during EMS work such as Katrina build resiliency for following traumatic events. To test these, NOEMS workers who fit the study's inclusion criteria were given a questionnaire that included a validated PTSD DSM-IV assessment tool and additional demographic questions. All responses were anonymous. The results were then assessed according to each subject's characteristics and PTSD score using bio-statistical tests.

Of the total respondents (n=92), 59.8% are male, 70.7% white, 76.1% non-Hispanic, 50% have children, 84.8% of those who have children live with them, 68.1% are paramedics, 60.4% lived in New Orleans post-Katrina, 20.8% have sought therapy, 3.4% worked only during Katrina, 67.4% worked only during COVID-19, and 25% worked during both Hurricane Katrina and the pandemic. 33.7% of NOEMS personnel met PTSD diagnostic criteria which is greater than the rates of 5-10% found in the general population following natural disasters. More than half of the respondents reported moderate to severe symptoms of hyperarousal. NOEMS personnel who worked during both Hurricane Katrina and the COVID-19 pandemic have lower PCL-C severity scores as well as lower PTSD percentages. Results from this study will be used for potential future innovations to reduce PTSD in EMS.