

Associations between Childhood Trauma and PTSD Symptoms after Adult Sexual Assault

Kara Petitt, *University of North Carolina at Chapel Hill*; Mattea Pezza, *University of Nevada, Las Vegas*; Jenny Black, *SAFE Austin*; Karen Serrano, *University of North Carolina at Chapel Hill*; Samuel McLean, *University of North Carolina at Chapel Hill*; Nicole A. Short, *University of Nevada, Las Vegas*

Introduction: Childhood trauma exposure can have adverse physical and mental effects on a person throughout life. In fact, childhood trauma exposure has been linked to the development of multiple psychopathologies, including posttraumatic stress disorder (PTSD), through a biopsychosocial model. More specifically, childhood trauma exposure, measured using the Adverse Childhood Experiences (ACEs) scale, has been found to uniquely predict a person's trauma and stress related symptoms. There is research finding that increased ACEs are associated with elevated development of PTSD symptoms. However, there has been less prospective research on the role of ACEs in PTSD development and recovery in the immediate aftermath of trauma, specifically adult sexual assault. This study examines the effects of ACEs on PTSD symptoms over 7 weeks post-assault, and the trajectory of PTSD symptoms after assault. Typically, sexual assault survivors demonstrate high levels of PTSD symptoms early after assault, which decline in the weeks following assault (though they remain high for a significant portion of survivors). We hypothesized that women sexual assault survivors presenting to emergency care with high ACE scores (>3 ACEs, based on prior literature) would have higher PCL-5 scores at each time point (initial, one week, and seven weeks). We also hypothesized that survivors with high ACEs scores would demonstrate less reduction in their PTSD scores from one week to seven weeks post-assault as compared to those with lower (0-2) ACE scores.

Methods: Forty-four female participants (Mean age=25.59, SD=6.91; White [56.8%], Latina/Hispanic [34.1%], Black/African American [15.9%], Asian [6.8%], American Indian/Alaskan Native [2.3%], Multiple/Other [6.8%]) completed a series of self-report surveys after receiving emergency care at one of two sites in the Better Tomorrow Network after experiencing a sexual assault. Childhood trauma exposure was measured using the 10-item ACE scale, and PTSD symptoms were measured using the PTSD Checklist for DSM-5 (PCL-5). Per previous research, we reduced ACE score to a dichotomous variable with 0-2 ACEs being defined as “Low”, and 3+ as “High”.

Results: Two Analyses of Variance (ANOVAs) were conducted for each hypothesis with the independent variable of ACE group (0-2 ACEs vs. 3+ ACEs). For the first hypothesis, PCL score at each time point (initial, one week, and seven weeks) was included as the dependent variable. At the initial time point, the ANOVA demonstrated significant differences in PCL scores by group, $F(1, 42)=11.71, p=.001$. The high exposure group demonstrated significantly higher PCL scores ($M=58.03$) compared to the low exposure group ($M=45.47$). This same effect was found at the one week, with the high exposure group experiencing significantly higher PCLs scores ($M=61.93$) than the lower exposure group ($M=53.93$), with significant differences in PCL scores by group, $F(1, 41)=4.79, p=.034$. This pattern was also observed at seven weeks, with the high exposure group experiencing significantly higher PCLs scores ($M=55.90$) than the low exposure group ($M=43.33$; $F(1, 42)=5.90, p=.020$). To test our second hypothesis, the dependent variable was reductions in PCL score from one week to seven weeks. There were no significant differences in PCL reductions by ACE group ($p=0.423$).

Conclusion: Our findings indicate that greater childhood trauma exposure is correlated with increased PTSD symptoms after sexual assault as an adult. However, they do not indicate that childhood trauma exposure hinders recovery from PTSD symptoms, as both groups experienced a relatively equivalent decrease in PTSD symptoms from the one week to seven weeks post-assault. The main limitation is that, due to the small sample size, the analyses may have been underpowered to detect a difference in recovery trajectories. Future research should also be done to analyze other potential factors influencing a person's recovery in PTSD symptoms after an adult sexual assault. Our first finding adds to a large area of research indicating that childhood trauma exposure has implications in the development of trauma and stress related symptoms throughout the duration of a person's life. This finding further solidifies childhood trauma exposure as an important factor to include in the assessment and treatment of PTSD symptoms, even when following a stressor that occurred as an adult.