

## The Effects of a Trauma Resilience and Recovery Program on Trauma Recidivism at a Level I Trauma Center

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**Purpose:** Trauma recidivism risk factors including psychiatric conditions, gunshot injuries, and lower socioeconomic backgrounds have been demonstrated to drive the rate of recidivism as high as 44%. Rehabilitation programs established throughout the United States attempt to improve outcomes by treating posttraumatic stress disorder and depression in trauma patients. Our study aims to analyze the effects of a Trauma Recovery and Resilience Program (TRRP) on trauma recidivism rates at our institution.

**Methods:** We conducted a retrospective review of 1457 trauma activation patients presenting at a Level I trauma center between 2017 and 2021. TRRP records were collected to establish patient participation in the step-wise program. Demographic, socioeconomic, mechanism of injury, admission, and readmission data were recorded to ascertain recidivism rates and establish risk factors.

**Results:** 12.2% of patients experienced an unrelated traumatic incident after their index injury. Mean age was  $47.76 \pm 21.1$  years. The average number of subsequent readmissions was  $0.19 \pm 0.7$ . 47.8% of patients participated in at least 1 TRRP service. TRRP patients participated in an average  $1.96 \pm 0.81$  interventions out of a total of 4. Although nonsignificant, there was a trend toward higher recidivism rates in patients who did not participate in TRRP (13.7%) compared to those who did (10.9%). However, TRRP patients had significantly fewer total readmission visits ( $0.14 \pm 0.46$ ) compared to the non-TRRP cohort ( $0.23 \pm 0.86$ ). There was no significant association between the number of TRRP interventions and readmission rates. Analysis demonstrated statistically significant associations between trauma recidivism and being unmarried, gunshot or assault injuries, alcohol intoxication at index admission, history of alcohol abuse, and smoking.

**Conclusion:** Our study confirms previously published risk factors for recidivism and demonstrates a trend toward reduced rates of subsequent readmission with TRRP involvement. Further development of trauma rehabilitation programs must ensure they address both the psychosocial consequences of traumatic injuries, as well as focus on readmission prevention techniques.