

Effects of Mechanism of Injury and Insurance Status on Behavioral and Clinical Sequelae in Pediatric Trauma Patients

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Background + Methods

- ❑ The complex behavioral impairments of children after traumatic brain injury (TBI) have been described, but behavioral outcomes following traumatic spinal cord injury (SCI) and multi-trauma (MT) are less studied, especially in comparison with each other.
- ❑ Single-institution retrospective review:
 - ❑ Patients ≤18 years admitted to an inpatient rehabilitation (IPR) program after traumatic injury from January 2018-December 2020

Aims

- ❑ Describe the effects of:
 - Socioeconomic status
 - Psychosocial stressors
 - Mechanism of injury on behavioral and clinical sequelae of pediatric trauma patients
- ❑ Focus on:
 - Insurance status
 - Parent compliance
 - Primary diagnosis

Conclusions + Future Directions

- ❑ Mechanism of injury and insurance status may play a role in initial trauma diagnosis and clinical outcomes following IPR.
- ❑ There is no evidence of correlation between hospital readmissions or procedures performed after discharge and initial trauma diagnosis.
- ❑ Up next: finding other quantifiable parameters to evaluate effects of socioeconomic status on clinical sequelae

Results

	TBI (n= 67)	SCI (n= 19)	MT (n= 12)	Behavioral/Psychological Outcome, n (%)	TBI (n=67)	SCI (n=19)	MT (n=12)	P-value
Private Insurance, n (%) (p=0.041)	62 (70.5)	14 (15.9)	10 (14.7)	Aggression/Impulsivity	25(37.3)	2 (10.5)	2 (16.7)	0.044
Public Insurance, n (%) (p=0.041)	4 (36.3)	5 (45.5)	2 (18.2)	Conduct Disorder	1 (1.5)	0 (0)	0 (0)	0.999
Avg. # of Readmissions (p=0.266)	0.84 ± 1.41	1.11 ± 1.05	0.83 ± 1.40	Oppositional Defiant Disorder	3 (4.5)	2 (10.5)	0 (0)	0.347
Avg. # of Procedures Performed (p=0.874)	1.18 ± 2.36	0.53 ± 0.84	1.33 ± 2.15	PTSD	3 (4.5)	4 (21.1)	2 (16.7)	0.037
				Acute Stress Disorder	4 (6.0)	5 (26.3)	0 (0)	0.026
				Adjustment Disorder	5 (7.5)	5 (26.3)	1 (8.3)	0.080
				Depression	10(14.5)	9 (47.4)	4 (33.3)	0.0074
				Suicidal Ideation or Self-Harm	5 (7.5)	2 (10.5)	2 (16.7)	0.420
				Neurocognitive Disorder	31(46.3)	0 (0)	5 (41.7)	0.0002
				ADHD	14(20.9)	1 (5.3)	5 (41.7)	0.052
				Anxiety	17(25.4)	4 (21.1)	3 (25.0)	0.999
				Other Mood Changes	13(19.4)	1 (5.3)	4 (33.3)	0.136

Table 1: Insurance status, number of readmissions, and number of procedures performed by initial diagnosis.

Table 2: Behavioral and psychological outcomes stratified by initial diagnosis.

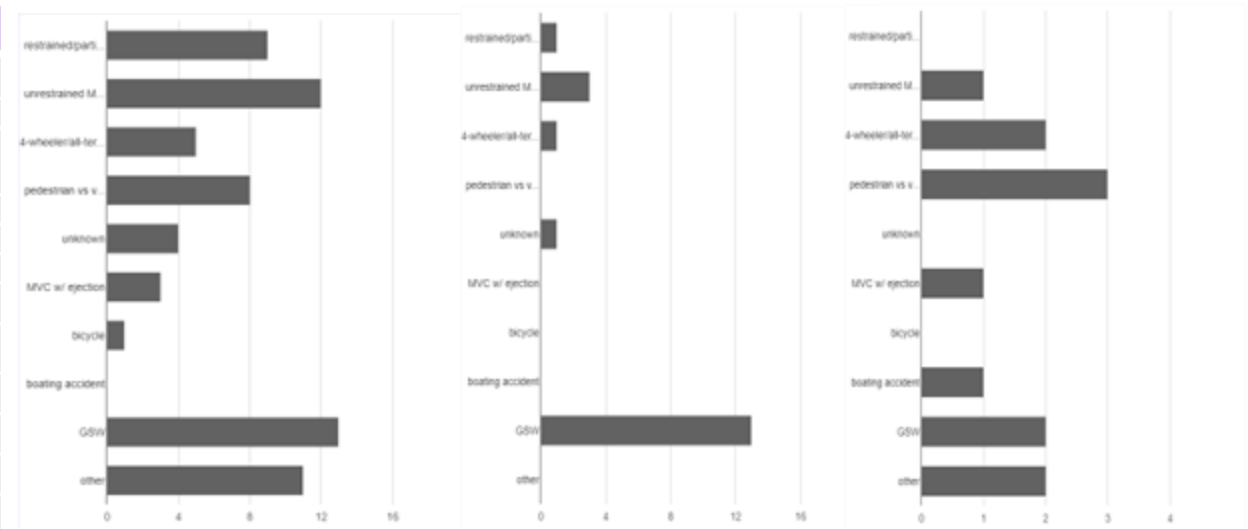


Figure 1: TBI by mechanism of injury (n=66).

Figure 2: SCI by mechanism of injury (n=19).

Figure 3: MT by mechanism of injury (n=12).