



Background

+ We sought to perform a review of emergency department data to illuminate whether there is a difference in the prevalence of severe injuries in patients with ADHD compared to patients without ADHD. We hope to illuminate whether providers should consider inquiring whether their pediatric patients have ADHD to improve long term outcomes.

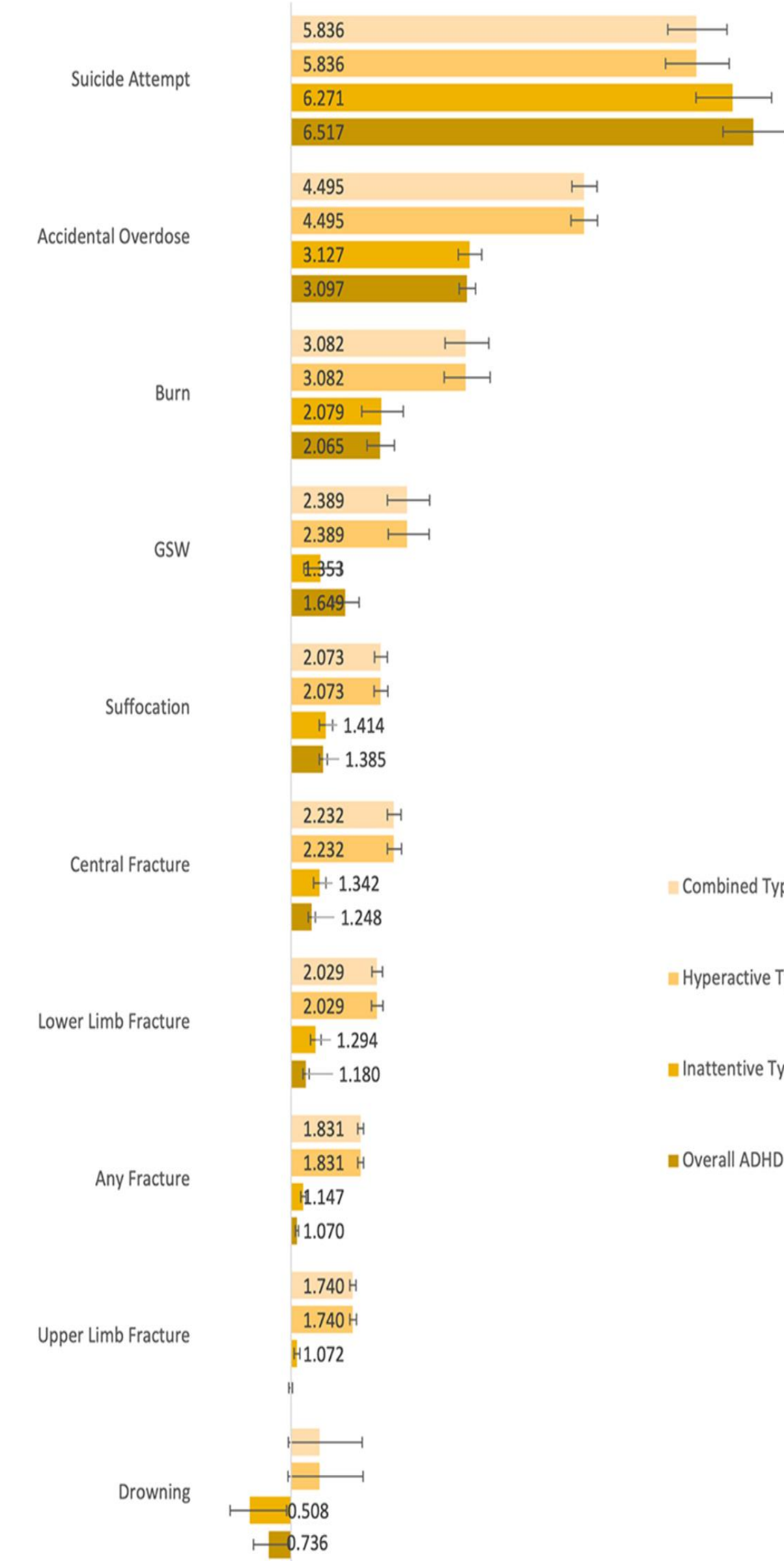
Methods

+ This study is a retrospective cohort study of patient records contained in the TriNetX database, specifically of pediatric patients in this database who presented to an emergency department. We specifically looked at the risk difference in patients <25 years of age with ADHD, no ADHD, inattentive type ADHD, hyperactive type ADHD, and combined type ADHD who presented with any fracture, a central fracture, an upper limb fracture, a lower limb fracture, an accidental overdose, a burn injury, a drowning incident, a gunshot wounds, suffocation, and a suicide attempt.

Results

Comparison between the no-ADHD cohort and the inattentive, hyperactive/impulsive, combined, and overall ADHD cohorts revealed differences in the majority of outcomes studied. Patients with overall ADHD had significant differences in rates of all outcomes aside from the upper limb fracture. Patients with combined or hyperactive/impulsive ADHD had significant differences in all but drowning, and the inattentive cohort had significance all events.

Event	Cohort	Event	Risk	Risk	Odds	95%	P	Event	Cohort	Event	Risk	Risk	Odds	95%	P
	N	N		diff.	ratio	CI	value		N	N		diff.	ratio	CI	value
Any fracture								Burn							
No ADHD	301084	30169	10.02%		Control cohort for comparison			No ADHD	301084	915	0.30%		Control cohort for comparison		
Overall ADHD	301084	32059	10.65%	0.63%	1.07	(1.05, 1.09)	<0.001	Overall ADHD	301084	1883	0.63%	0.32%	2.06	(1.91, 2.24)	<0.001
Inattentive Type	61443	6961	11.33%	1.31%	1.15	(1.12, 1.18)	<0.001	Inattentive type	61443	387	0.63%	0.33%	2.08	(1.85, 2.34)	<0.001
Hyperactive Type	112384	19030	16.93%	6.91%	1.83	(1.8, 1.87)	<0.001	Hyperactive type	112384	1046	0.93%	0.63%	3.08	(2.82, 3.37)	<0.001
Combined Type	160041	23204	14.50%	4.48%	1.83	(1.8, 1.86)	<0.001	Combined type	160041	1314	0.82%	0.52%	3.08	(2.83, 3.35)	<0.001
Central fracture								Drowning							
No ADHD	301084	6174	2.05%		Control cohort for comparison			No ADHD	301084	106	0.04%		Control cohort for comparison		
Overall ADHD	301084	7669	2.55%	0.50%	1.25	(1.21, 1.29)	<0.001	Overall ADHD	301084	78	0.03%	-0.01%	0.74	(0.55, 0.99)	0.05
Inattentive Type	61443	1679	2.73%	0.68%	1.34	(1.27, 1.42)	<0.001	Inattentive type	61443	11	0.02%	-0.02%	0.51	(0.27, 0.95)	0.048
Hyperactive Type	112384	5016	4.46%	2.41%	2.23	(2.15, 2.32)	<0.001	Hyperactive type	112384	53	0.05%	0.01%	1.34	(0.96, 1.86)	0.545
Combined Type	160041	5741	3.59%	1.54%	2.23	(2.15, 2.31)	<0.001	Combined type	160041	57	0.04%	0.00%	1.34	(0.97, 1.85)	0.67
Upper limb fracture								Gunshot Wound (GSW)							
No ADHD	301084	20462	6.80%		Control cohort for comparison			No ADHD	301084	685	0.23%		Control cohort for comparison		
Overall ADHD	301084	20336	6.75%	-0.04%	0.99	(0.97, 1.01)	0.518	Overall ADHD	301084	1128	0.37%	0.15%	1.65	(1.5, 1.81)	<0.001
Inattentive Type	61443	4453	7.25%	0.45%	1.07	(1.04, 1.11)	0.029	Inattentive Type	61443	189	0.31%	0.08%	1.35	(1.15, 1.59)	<0.001
Hyperactive Type	112384	12652	11.26%	4.46%	1.74	(1.7, 1.78)	<0.001	Hyperactive Type	160041	867	0.54%	0.31%	2.39	(2.16, 2.64)	<0.001
Combined Type	160041	15366	9.60%	2.81%	1.74	(1.7, 1.78)	<0.001	Combined Type	112384	767	0.68%	0.45%	2.39	(2.15, 2.65)	<0.001
Lower limb fracture								Suffocation							
No ADHD	301084	8278	2.75%		Control cohort for comparison			No ADHD	301084	5688	1.89%		Control cohort for comparison		
Overall ADHD	301084	9719	3.23%	0.48%	1.18	(1.15, 1.22)	<0.001	Overall ADHD	301084	7820	2.60%	0.71%	1.38	(1.34, 1.43)	<0.001
Inattentive Type	61443	2168	3.53%	0.78%	1.29	(1.23, 1.36)	<0.001	Inattentive type	61443	1629	2.65%	0.76%	1.41	(1.34, 1.5)	<0.001
Hyperactive Type	112384	6096	5.42%	2.67%	2.03	(1.96, 2.1)	<0.001	Hyperactive type	112384	4313	3.84%	1.95%	2.07	(1.99, 2.16)	<0.001
Combined Type	160041	7245	4.53%	1.78%	2.03	(1.97, 2.1)	<0.001	Combined type	160041	5311	3.32%	1.43%	2.07	(2, 2.15)	<0.001
Accidental overdose								Suicide attempt							
No ADHD	301084	5276	1.75%		Control cohort for comparison			No ADHD	301084	1356	0.45%		Control cohort for comparison		
Overall ADHD	301084	15763	5.24%	3.48%	3.10	(3, 3.2)	<0.001	Overall ADHD	301084	8623	2.86%	2.41%	6.52	(6.15, 6.9)	<0.001
Inattentive type	61443	3246	5.28%	3.53%	3.13	(2.99, 3.27)	<0.001	Inattentive type	61443	1695	2.76%	2.31%	6.27	(5.84, 6.74)	<0.001
Hyperactive type	112384	8342	7.42%	5.67%	4.50	(4.34, 4.66)	<0.001	Hyperactive type	112384	2891	2.57%	2.12%	5.84	(5.47, 6.23)	<0.001
Combined type	160041	10705	6.69%	4.94%	4.50	(4.35, 4.65)	<0.001	Combined type	160041	4700	2.94%	2.49%	5.84	(5.49, 6.2)	0.031



Conclusions

+ The stark difference between severe injury presentations in the pediatric emergency department between children with ADHD and without ADHD suggests that providers should consider inquiring whether patients have ADHD to educate them on their risk for severe injuries.

Implications

+ It is our hope that our findings better enable the ED provider to counsel, inform, and refer youths with ADHD to their psychiatrist or primary care provider, and mitigate the increased overall morbidity and mortality in this population.

Disclosures