

Table 1. Associations Between Lifetime History of Concussion, Care-seeking, and Diagnosis Confirmation and Sociodemographic Characteristics Among U.S. Children Ages 6 to 17 years from the 2023 National Survey of Children’s Health

Characteristic	Concussion		Sought Care		Injury Confirmed	
	Yes, n (weighted n)	aOR (95% CI)	Yes, n (weighted n)	aOR (95% CI)	Yes, n (weighted n)	aOR (95% CI)
N (Weighted N)	33,475 (49,733,639)		2,308 (2,571,3222)		2,038 (2,244,6922)	
Weighted Yes (%)	2,594,516 (5.2%)		2,245,735 (87.3%)		2,010,151 (89.6%)	
Age group, years						
6-9	312 (411,400)	ref	256 (311,805)	ref	209 (262,516)	ref
10-12	381 (504,412)	1.52 (1.10, 2.10)	337 (465,823)	3.24 (1.51, 6.98)	288 (417,088)	1.97 (0.95, 4.11)
13-17	1,628 (1,678,704)	2.91 (2.29, 3.70)	1,447 (1,468,107)	2.27 (1.26, 4.09)	1,328 (1,330,547)	2.33 (1.30, 4.18)
Sex						
Male	1,385 (1,521,803)	ref	1,209 (1,334,857)	ref	1,086 (1,210,921)	ref
Female	936 (1,072,713)	0.67 (0.55, 0.81)	831 (910,878)	0.97 (0.58, 1.61)	739 (799,230)	0.80 (0.51, 1.25)
Race						
White	1,921 (1,987,411)	ref	1,685 (1,727,090)	ref	1,526 (1,589,947)	ref
Black or African American	91 (252,541)	0.61 (0.41, 0.90)	80 (195,791)	0.41 (0.17, 1.00)	67 (163,070)	0.43 (0.17, 1.08)
Asian	55 (60,749)	0.48 (0.31, 0.75)	43 (51,006)	0.76 (0.18, 3.16)	33 (34,944)	0.13 (0.05, 0.35)
AI, AN, NH or Other PI	36 (77,052)	1.80 (0.89, 3.65)	33 (75,518)	4.89 (0.90, 26.6)	28 (50,268)	0.12 (0.03, 0.42)
Two or more races	218 (216,764)	0.90 (0.71, 1.13)	199 (196,329)	1.70 (0.75, 3.84)	171 (171,923)	0.55 (0.29, 1.05)
Ethnicity						
Non-Hispanic	2,056 (2,089,990)	ref	1,817 (1,824,595)	ref	1,626 (1,625,116)	ref
Hispanic	265 (504,526)	0.77 (0.59, 1.00)	223 (421,139)	0.65 (0.33, 1.30)	199 (385,035)	1.75 (0.74, 4.17)
Primary household language						
English	2,258 (2,403,602)	ref	1,988 (2,082,087)	ref	1,781 (1,866,670)	ref
Other	57 (183,510)	0.52 (0.29, 0.93)	48 (158,237)	1.81 (0.40, 8.09)	40 (138,071)	1.01 (0.25, 4.18)
Caregiver education level						
More than high school	2,065 (2,085,457)	ref	1,821 (1,815,517)	ref	1,637 (1,651,715)	ref
High school	216 (321,546)	0.72 (0.55, 0.96)	186 (270,537)	0.65 (0.30, 1.41)	161 (226,150)	0.48 (0.23, 0.99)
Less than high school	40 (187,513)	1.30 (0.75, 2.28)	33 (159,680)	1.19 (0.18, 7.87)	27 (132,286)	0.30 (0.07, 1.31)
Special health care needs						
No	1,280 (1,480,418)	ref	1,101 (1,263,182)	ref	1,006 (1,160,803)	ref
Yes	1,041 (1,114,098)	1.61 (1.30, 2.00)	939 (982,553)	1.38 (0.77, 2.49)	819 (849,348)	0.82 (0.48, 1.42)
History of headache/migraines						
No	1,995 (2,237,828)	ref	1,734 (1,908,073)	ref	1,553 (1,721,942)	ref
Yes	316 (347,124)	2.49 (1.60, 3.89)	296 (328,098)	1.94 (0.72, 5.26)	263 (278,924)	0.75 (0.43, 1.32)
History of depression						
No	1,883 (2,142,580)	ref	1,639 (1,824,987)	ref	1,472 (1,643,884)	ref
Yes	431 (439,987)	1.33 (0.99, 1.78)	394 (408,799)	2.17 (0.91, 5.19)	347 (354,800)	0.92 (0.46, 1.82)
History of anxiety						
No	1,581 (1,852,369)	ref	1,360 (1,564,323)	ref	1,227 (1,412,465)	ref
Yes	735 (739,832)	1.23 (0.95, 1.58)	675 (679,097)	1.10 (0.58, 2.10)	594 (595,731)	0.78 (0.45, 1.35)
History of ADD or ADHD						
No	1,745 (1,965,076)	ref	1,525 (1,691,476)	ref	1,376 (1,520,342)	ref
Yes	566 (612,143)	1.10 (0.86, 1.39)	507 (548,215)	0.91 (0.49, 1.68)	443 (485,615)	0.89 (0.52, 1.51)
Sports participation in past year						
No	658 (936,862)	ref	583 (781,527)	ref	506 (691,403)	ref
Yes	1,654 (1,648,779)	1.34 (1.07, 1.66)	1,448 (1,455,333)	1.62 (0.96, 2.75)	1,311 (1,311,092)	0.83 (0.49, 1.39)
Insurance type						
Private	1,722 (1,695,283)	ref	1,509 (1,448,336)	ref	1,358 (1,313,182)	ref
Public	370 (593,820)	0.89 (0.69, 1.15)	331 (530,091)	1.56 (0.80, 3.03)	288 (465,607)	1.10 (0.54, 2.23)
Private and public	118 (136,530)	0.75 (0.50, 1.13)	108 (128,661)	4.75 (1.23, 18.4)	94 (110,280)	0.95 (0.30, 3.03)
Not insured	77 (116,288)	0.87 (0.56, 1.33)	61 (100,715)	1.27 (0.44, 3.72)	56 (83,513)	0.75 (0.23, 2.44)
Seen for any care in past year						
No	194 (261,947)	ref	167 (225,631)	ref	150 (209,793)	ref
Yes	2,126 (2,332,092)	1.72 (1.27, 2.33)	1,873 (2,020,104)	0.84 (0.36, 1.95)	1,675 (1,800,358)	0.53 (0.21, 1.36)
Has usual place for healthcare						
Yes	2,107 (2,248,383)	ref	1,861 (1,967,843)	ref	1,661 (1,750,246)	ref
No	209 (343,095)	0.82 (0.56, 1.21)	175 (275,049)	0.48 (0.20, 1.14)	160 (257,063)	2.67 (0.99, 7.24)

* Abbreviations: American Indian, Alaska Native, Native Hawaiian and/or Other Pacific Islander, AI, AN, NH or Other PI