

Supplemental Table 1. Associations With Days Until Asymptomatic After Concussion

Variable	No. ^a	Events ^b	Mean	95% Confidence Interval	Median	SCAT3 Symptom Severity Quartile		Log-Rank Test Value	Log-Rank Test <i>P</i> Value	Generalized Wilcoxon Test Value	Generalized Wilcoxon Test <i>P</i> Value
						1	3				
Cadets	638	602	21.41	19.04, 23.78	11.00	6.00	20.00				
Injury type								14.12	.001	20.05 ^c	<.001
Sport	276	265	17.03	14.38, 19.67	9.00	5.00	16.50				
Academy training	206	197	20.55	16.68, 24.41	12.50	5.00	21.00				
Free time	88	79	24.89	19.79, 29.98	16.00	10.00	25.00				
Site								0.08	.96	2.47 ^c	.29
1	230	212	20.80	17.54, 24.06	11.00	6.00	21.00				
2	393	378	19.29	16.65, 21.93	11.00	5.00	18.00				
3	15	12	21.73	12.82, 30.64	13.00	10.00	47.00				
Sex								14.85 ^c	<.001	18.36	<.001
Men	400	382	16.66	14.62, 18.71	10.00	5.00	17.00				
Women	238	220	26.60	22.20, 31.00	13.00	8.00	24.00				
Varsity status								20.51 ^c	<.001	31.86	<.001
Varsity	240	231	15.33	12.71, 17.96	8.00	4.00	15.00				
Nonvarsity	398	371	24.25	21.06, 27.44	13.00	7.00	22.00				
Previous concussion								1.47	.23	0.26 ^c	.61
Yes	187	172	24.06	19.04, 29.08	11.00	6.00	22.00				
No	423	405	18.58	16.41, 20.76	11.00	6.00	19.00				
Headaches								4.97	.03	3.86 ^c	.05

Yes	221	203	22.34	18.70, 25.97	12.00	7.00	22.00					
No	385	370	19.06	16.35, 21.77	10.00	5.00	19.00					
Loss of consciousness								5.42	.02	2.29 ^c	.13	
Yes	50	43	27.54	18.82, 36.26	17.00	5.00	27.00					
No	561	534	20.29	17.91, 22.67	11.00	6.00	19.00					
Posttraumatic amnesia								4.17 ^c	.041	1.95	.16	
Yes	74	66	26.03	19.14, 32.92	12.50	6.00	26.00					
No	539	512	20.36	17.91, 22.81	11.00	6.00	20.00					
Immediately removed from play or activity								0.18	.67	4.48 ^c	.03	
Yes	234	217	17.89	14.81, 20.98	9.00	5.00	18.00					
No	244	239	18.48	15.57, 21.38	12.00	6.00	20.00					
Injury reported immediately								4.55	.03	13.32 ^c	<.001	
Yes	278	260	20.48	16.67, 24.28	9.00	5.00	18.00					
No	334	318	20.78	18.24, 23.32	13.00	7.00	22.00					
Total SCAT3 symptom severity			0.99	0.98, 0.99				45.08 ^d	<.001			
SCAT3 symptom severity by quartile								56.64	<.001	77.96 ^c	<.001	
1	161	155	11.12	9.05, 13.19	7.00	3.00	13.00					
2	140	135	18.12	13.77, 22.48	10.00	6.00	18.00					
3	153	148	18.86	15.73, 22.00	13.00	8.00	21.00					
4	156	139	27.14	23.06, 29.80	16.00	9.00	36.50					
BSI 18 Somatization scale score								0.47	.49	0.00 ^c	.95	
Low	516	488	20.77	18.21, 23.33	11.50	6.00	20.00					

High	122	114	22.24	17.25, 27.23	11.00	5.00	21.00				
BSI 18 Depression scale score								0.67	.41	0.11 ^c	.75
Low	505	477	20.81	18.19, 23.42	11.00	6.00	19.00				
High	133	125	21.50	17.13, 25.87	12.00	5.00	22.00				
BSI 18 Anxiety scale score								0.08 ^c	.78	0.03	.87
Low	503	474	21.12	18.47, 23.77	11.00	6.00	20.00				
High	135	128	21.10	16.62, 25.59	12.00	6.00	19.00				

Abbreviations: BSI 18, Brief Symptom Inventory 18; SCAT3, Sport Concussion Assessment Tool, third edition.

^a When the sum of values in a variable category does not equal the total number for cadets, data are missing.

^b When the sum of values in a variable category does not equal the total number of events for cadets, data are missing.

^c Denotes whether the log-rank test or generalized Wilcoxon test was used.

^d Cox proportional hazard test.

Supplemental Table 2. Associations With Duration of Return-to-Activity Protocol After Concussion

Variable	No. ^a	Events ^b	Mean	95% Confidence Interval	Median	SCAT3 Symptom Severity Quartile		Log-Rank Test Value	Log-Rank Test <i>P</i> Value	Generalized Wilcoxon Test value	Generalized Wilcoxon <i>P</i> Value
						1	3				
Cadets	601	546	22.62	19.89, 25.34	8.00	6.00					
Injury type								0.09 ^c	.96	2.47	.29
Sport	264	235	20.83	17.26, 24.40	8.00	5.00					
Academy training	197	185	19.19	15.60, 22.78	8.00	6.00					
Free time	79	71	23.61	15.52, 31.69	8.00	6.00					
Site								73.81	<.001	62.68 ^c	<.001
1	212	171	37.14	31.10, 43.17	14.00	7.00					
2	377	366	12.84	11.19, 14.48	7.00	5.00					
3	12	9	19.42	11.05, 27.78	17.00	4.50					
Sex								0.34 ^c	.56	3.36	.07
Men	382	342	21.95	18.67, 25.22	8.00	5.00					
Women	219	204	21.81	17.69, 25.93	9.00	6.00					
Varsity								7.28	.007	20.40 ^c	<.001
Varsity	231	209	18.56	14.93, 22.19	7.00	4.00					
Nonvarsity	370	337	23.73	20.29, 27.17	9.00	6.00					
Previous concussion								1.98 ^c	.16	3.47	.06
Yes	172	158	20.19	15.30, 25.07	7.00	5.00					
No	404	367	21.89	18.85, 24.93	9.00	6.00					
Headaches								3.93	.047	2.70 ^c	.10

Yes	203	191	18.53	14.51, 22.54	7.00	5.00	15.00				
No	369	331	22.67	19.36, 25.99	9.00	6.00	21.00				
Loss of consciousness								0.43	.51	0.19 ^c	.66
Yes	43	40	19.14	10.02, 28.26	8.00	6.00	14.00				
No	533	488	21.84	19.04, 24.64	8.00	6.00	20.00				
Posttraumatic amnesia								0.12	.73	0.22 ^c	.64
Yes	66	59	14.24	11.18, 17.31	8.50	6.00	19.00				
No	511	470	21.45	18.61, 24.28	8.00	6.00	19.00				
Retrograde amnesia								1.53 ^c	.22	1.83	.18
Yes	30	26	16.53	11.68, 21.39	9.00	7.00	21.00				
No	545	501	19.47	17.20, 21.74	8.00	6.00	19.00				
Immediately removed from play or activity								0.03 ^c	.86	0.50	.48
Yes	216	199	19.02	15.22, 22.81	7.00	5.00	15.50				
No	239	224	16.17	13.51, 18.84	8.00	5.00	18.00				
Injury reported immediately								4.36	.04	2.84 ^c	.09
Yes	259	243	18.00	14.76, 21.24	8.00	6.00	17.00				
No	318	285	24.61	20.64, 28.57	9.00	6.00	21.00				
Total SCAT3 symptom severity score			0.99	0.99, 0.99				11.25 ^d	.001		
SCAT3 symptom severity score by quartile								15.97	.001	25.23 ^c	<.001
1	154	143	12.25	10.36, 14.15	7.00	5.00	15.00				
2	135	126	19.03	13.74, 24.32	7.00	5.00	15.00				

3	148	136	21.07	16.38, 25.76	8.50	6.00	20.50				
4	139	123	22.55	18.55, 26.56	11.00	7.00	28.00				
BSI 18 Somatization scale score								9.76	.002	4.09 ^c	.043
Low	487	434	24.82	21.57, 28.08	9.00	6.00	22.00				
High	114	112	11.84	9.93, 13.75	7.00	6.00	15.00				
BSI 18 Depression scale score								0.19	.66	0.61 ^c	.43
Low	476	432	22.69	19.59, 25.80	8.00	6.00	19.50				
High	125	114	15.65	13.23, 18.07	9.00	6.00	22.00				
BSI 18 Anxiety scale score								0.39 ^c	.53	0.41	.52
Low	473	428	21.96	19.12, 24.81	8.00	6.00	20.00				
High	128	118	21.23	15.57, 26.88	8.00	5.50	19.50				
Days until asymptomatic								12.75 ^c	<.001	20.41	<.001
<11	322	299	18.39	15.30, 21.48	7.00	5.00	16.00				
≥11	279	247	26.60	22.24, 30.96	9.00	6.00	24.00				

Abbreviations: BSI 18, Brief Symptom Inventory 18; SCAT3, Sport Concussion Assessment Tool, third edition.

^a When the sum of values in a variable category does not equal the total number for cadets, data are missing.

^b When the sum of values in a variable category does not equal the total number of events for cadets, data are missing.

^c Denotes whether the log-rank test or generalized Wilcoxon test was used.

^d Cox proportional hazard test.

Supplemental Table 3. Demographic Comparisons by Sex

Variable	Men	Women	t_{699} Value	χ^2 Value	<i>P</i> Value
Age, mean \pm SD	19.24 \pm 1.53	18.99 \pm 1.19	-2.27		.02
	No. (%)				
Site				$\chi^2_2 = 29.24$	<.001
1	171 (37.92)	109 (39.64)			
2	277 (61.42)	144 (52.36)			
3	3 (0.67)	22 (8.00)			
Varsity status				$\chi^2_1 = 1.42$.23
Varsity	174 (38.58)	94 (34.18)			
Nonvarsity	277 (61.42)	181 (65.82)			
Previous concussion				$\chi^2_1 = 0.07$.78
Yes	135 (31.51)	80 (30.53)			
No	293 (68.46)	182 (69.47)			

Supplemental Table 4. Demographic Comparisons by Concussion History

Variable	Previous Concussion	No Previous Concussion	t_{688} Value	χ^2 Value	P Value
Age, mean \pm SD	19.35 \pm 1.39	19.05 \pm 1.41	-2.64		.008
	No. (%)				
Sex				$\chi^2_1 = 0.07$.05
Men	135 (62.79)	293 (61.68)			
Women	80 (37.21)	182 (38.32)			
Site				$\chi^2_2 = 4.32$.12
1	83 (38.60)	171 (36.00)			
2	120 (55.81)	291 (61.26)			
3	12 (5.58)	13 (2.74)			
Varsity status				$\chi^2_1 = 5.40$.02
Varsity	96 (44.65)	168 (35.37)			
Nonvarsity	119 (55.35)	307 (64.63)			

Supplemental Table 5. Demographic Comparisons by Varsity Status

Variable	Varsity	Nonvarsity	t_{699} Value	χ^2 Value	P Value
Age, mean \pm SD	19.23 \pm 1.40	19.09 \pm 1.07	-1.25		.21
	No. (%)				
Sex				$\chi_1^2 = 1.42$.23
Men	174 (64.93)	277 (60.48)			
Women	94 (35.52)	181 (39.52)			
Site				$\chi_3^2 = 4.55$.10
1	97 (36.19)	183 (39.96)			
2	157 (58.58)	264 (57.64)			
3	14 (5.22)	11 (2.40)			
Previous concussion				$\chi_1^2 = 5.39$.02
Yes	96 (36.36)	119 (27.93)			
No	168 (63.64)	307 (72.07)			