

List of Supplemental Digital Content

Supplemental Digital Content 1. Tables showing baseline and follow-up characteristics of participants with and without suicidal ideation at each follow-up visit and bivariate associations of suicidal ideation with baseline and follow-up variables.

Supplemental Digital Content 1

Note for all tables: Bivariate associations between categorical variables and suicidal ideation on the Patient Health Questionnaire were evaluated with Fisher's exact tests. Bivariate associations between continuous variables and suicidal ideation on the Patient Health Questionnaire were evaluated with Wilcoxon rank sum tests. W02= 2-week assessment; M03= 3-month assessment; M06= 6-month assessment; M12= 12-month assessment.

Table 1
Suicidal ideation on Patient Health Questionnaire item 9 by sex

	No	Yes	Total	<i>p</i>
W02				
Male	576 (96.16%)	23 (3.84%)	599 (100%)	0.8592
Female	304 (95.9%)	13 (4.1%)	317 (100%)	
Total	880 (96.07%)	36 (3.93%)	916 (100%)	
M03				
Male	537 (95.38%)	26 (4.62%)	563 (100%)	0.2084
Female	285 (93.14%)	21 (6.86%)	306 (100%)	
Total	822 (94.59%)	47 (5.41%)	869 (100%)	
M06				
Male	502 (95.44%)	24 (4.56%)	526 (100%)	>0.9999
Female	286 (95.33%)	14 (4.67%)	300 (100%)	
Total	788 (95.4%)	38 (4.6%)	826 (100%)	
M12				
Male	466 (95.69%)	21 (4.31%)	487 (100%)	>0.9999
Female	264 (96%)	11 (4%)	275 (100%)	
Total	730 (95.8%)	32 (4.2%)	762 (100%)	

Table 2
Suicidal ideation on Patient Health Questionnaire item 9 by race

	No	Yes	Total	<i>p</i>
W02				
White	665 (95.27%)	33 (4.73%)	698 (100%)	0.4861
Black/Other	211 (94.2%)	13 (5.8%)	224 (100%)	
Total	876 (95.01%)	46 (4.99%)	922 (100%)	
M03				
White	623 (95.26%)	31 (4.74%)	654 (100%)	0.118
Black/Other	195 (92.42%)	16 (7.58%)	211 (100%)	
Total	818 (94.57%)	47 (5.43%)	865 (100%)	
M06				
White	589 (95.62%)	27 (4.38%)	616 (100%)	0.5667
Black/Other	194 (94.63%)	11 (5.37%)	205 (100%)	
Total	783 (95.37%)	38 (4.63%)	821 (100%)	
M12				
White	539 (95.91%)	23 (4.09%)	562 (100%)	0.8369
Black/Other	188 (95.43%)	9 (4.57%)	197 (100%)	
Total	727 (95.78%)	32 (4.22%)	759 (100%)	

Table 3

Suicidal ideation on Patient Health Questionnaire item 9 by ethnicity

	No	Yes	Total	<i>p</i>
W02				
Non-Hispanic	696 (95.34%)	34 (4.66%)	730 (100%)	0.3588
Hispanic	182 (93.81%)	12 (6.19%)	194 (100%)	
Total	878 (95.02%)	46 (4.98%)	924 (100%)	
M03				
Non-Hispanic	668 (95.16%)	34 (4.84%)	702 (100%)	0.1259
Hispanic	151 (92.07%)	13 (7.93%)	164 (100%)	
Total	819 (94.57%)	47 (5.43%)	866 (100%)	
M06				
Non-Hispanic	642 (95.25%)	32 (4.75%)	674 (100%)	0.8313
Hispanic	143 (95.97%)	6 (4.03%)	149 (100%)	
Total	785 (95.38%)	38 (4.62%)	823 (100%)	
M12				
Non-Hispanic	610 (95.61%)	28 (4.39%)	638 (100%)	0.8052
Hispanic	117 (96.69%)	4 (3.31%)	121 (100%)	
Total	727 (95.78%)	32 (4.22%)	759 (100%)	

Table 4

Years of education at baseline by suicidal ideation on Patient Health Questionnaire item 9

	N	Mean	SD	Min	Q1	Median	Q3	Max	<i>p</i>
W02									
No	867	13.653	2.919	0	12	13	16	20	0.1174
Yes	44	12.909	2.288	7	12	12	14.25	18	
Overall	911	13.617	2.895	0	12	13	16	20	
M03									
No	811	13.721	2.929	0	12	13	16	20	0.1306
Yes	47	13.096	2.337	7	12	12	15.75	18	
Overall	858	13.686	2.902	0	12	13	16	20	
M06									
No	775	13.741	2.902	0	12	13	16	20	0.8404
Yes	38	14.039	2.839	10	12	13	16	20	
Overall	813	13.755	2.898	0	12	13	16	20	
M12									
No	721	13.868	2.862	0	12	13	16	20	0.2259
Yes	32	13.312	2.334	9	12	12	15.25	20	
Overall	753	13.844	2.843	0	12	13	16	20	

Table 5

Age at baseline by suicidal ideation on Patient Health Questionnaire item 9

	N	Mean	SD	Min	Q1	Median	Q3	Max	<i>p</i>
W02									
No	881	39.608	16.723	17	25	36	52	90	0.0504
Yes	46	33.957	12.35	18	24.25	29.5	43.25	59	
Overall	927	39.328	16.573	17	25	36	52	90	
M03									
No	822	40.854	17.189	17	26	38	53	90	0.0342
Yes	47	34.596	12.418	19	25	31	42	60	
Overall	869	40.516	17.019	17	26	37	53	90	
M06									
No	788	40.482	17.114	17	25	37.5	53	90	0.8569
Yes	38	38.842	14.009	20	27	36	51	76	
Overall	826	40.407	16.98	17	25.25	37	53	90	
M12									
No	730	41.023	17.304	17	26	38	54	90	0.3159
Yes	32	36.844	12.182	20	25.75	36.5	47.25	59	
Overall	762	40.848	17.134	17	26	38	53	90	

Table 6

Suicidal ideation on Patient Health Questionnaire item 9 by age group at baseline

	No	Yes	Total	<i>p</i>
W02				
17-24	208 (94.55%)	12 (5.45%)	220 (100%)	0.0631
25-44	341 (93.68%)	23 (6.32%)	364 (100%)	
45-64	250 (95.79%)	11 (4.21%)	261 (100%)	
65+	82 (100%)	0 (0%)	82 (100%)	
Total	881 (95.04%)	46 (4.96%)	927 (100%)	
M03				
17-24	176 (94.12%)	11 (5.88%)	187 (100%)	0.018
25-44	313 (92.6%)	25 (7.4%)	338 (100%)	
45-64	244 (95.69%)	11 (4.31%)	255 (100%)	
65+	89 (100%)	0 (0%)	89 (100%)	
Total	822 (94.59%)	47 (5.41%)	869 (100%)	
M06				
17-24	177 (96.2%)	7 (3.8%)	184 (100%)	0.3344
25-44	294 (94.23%)	18 (5.77%)	312 (100%)	
45-64	234 (95.12%)	12 (4.88%)	246 (100%)	
65+	83 (98.81%)	1 (1.19%)	84 (100%)	
Total	788 (95.4%)	38 (4.6%)	826 (100%)	
M12				
17-24	157 (95.73%)	7 (4.27%)	164 (100%)	0.1547
25-44	272 (94.77%)	15 (5.23%)	287 (100%)	
45-64	218 (95.61%)	10 (4.39%)	228 (100%)	
65+	83 (100%)	0 (0%)	83 (100%)	
Total	730 (95.8%)	32 (4.2%)	762 (100%)	

Table 7

Suicidal ideation on Patient Health Questionnaire item 9 by injury cause

	No	Yes	Total	<i>p</i>
W02				
Traffic/Fall/Other	824 (94.71%)	46 (5.29%)	870 (100%)	0.1067
Violence/Assault	57 (100%)	0 (0%)	57 (100%)	
Total	881 (95.04%)	46 (4.96%)	927 (100%)	
M03				
Traffic/Fall/Other	774 (94.62%)	44 (5.38%)	818 (100%)	0.7516
Violence/Assault	48 (94.12%)	3 (5.88%)	51 (100%)	
Total	822 (94.59%)	47 (5.41%)	869 (100%)	
M06				
Traffic/Fall/Other	742 (95.25%)	37 (4.75%)	779 (100%)	0.7178
Violence/Assault	46 (97.87%)	1 (2.13%)	47 (100%)	
Total	788 (95.4%)	38 (4.6%)	826 (100%)	
M12				
Traffic/Fall/Other	693 (95.98%)	29 (4.02%)	722 (100%)	0.2329
Violence/Assault	37 (92.5%)	3 (7.5%)	40 (100%)	
Total	730 (95.8%)	32 (4.2%)	762 (100%)	

Table 8

Suicidal ideation on Patient Health Questionnaire item 9 by patient triage disposition

	No	Yes	Total	<i>p</i>
W02				
ED Discharge	321 (95.82%)	14 (4.18%)	335 (100%)	0.1327
Hospital admit no ICU	368 (93.4%)	26 (6.6%)	394 (100%)	
Hospital admit with ICU	192 (96.97%)	6 (3.03%)	198 (100%)	
Total	881 (95.04%)	46 (4.96%)	927 (100%)	
M03				
ED Discharge	281 (93.05%)	21 (6.95%)	302 (100%)	0.1798
Hospital admit no ICU	355 (94.67%)	20 (5.33%)	375 (100%)	
Hospital admit with ICU	186 (96.88%)	6 (3.12%)	192 (100%)	
Total	822 (94.59%)	47 (5.41%)	869 (100%)	
M06				
ED Discharge	279 (94.58%)	16 (5.42%)	295 (100%)	0.3354
Hospital admit no ICU	326 (95.04%)	17 (4.96%)	343 (100%)	
Hospital admit with ICU	183 (97.34%)	5 (2.66%)	188 (100%)	
Total	788 (95.4%)	38 (4.6%)	826 (100%)	
M12				
ED Discharge	251 (95.44%)	12 (4.56%)	263 (100%)	0.9466
Hospital admit no ICU	303 (95.89%)	13 (4.11%)	316 (100%)	
Hospital admit with ICU	176 (96.17%)	7 (3.83%)	183 (100%)	
Total	730 (95.8%)	32 (4.2%)	762 (100%)	

Table 9

Suicidal ideation on Patient Health Questionnaire item 9 by loss of consciousness

	No	Yes	Total	<i>p</i>
W02				
No	125 (97.66%)	3 (2.34%)	128 (100%)	0.1853
Yes	714 (94.69%)	40 (5.31%)	754 (100%)	
Total	839 (95.12%)	43 (4.88%)	882 (100%)	
M03				
No	122 (96.06%)	5 (3.94%)	127 (100%)	0.6661
Yes	661 (94.43%)	39 (5.57%)	700 (100%)	
Total	783 (94.68%)	44 (5.32%)	827 (100%)	
M06				
No	113 (96.58%)	4 (3.42%)	117 (100%)	0.8055
Yes	634 (95.63%)	29 (4.37%)	663 (100%)	
Total	747 (95.77%)	33 (4.23%)	780 (100%)	
M12				
No	108 (97.3%)	3 (2.7%)	111 (100%)	0.6025
Yes	583 (95.89%)	25 (4.11%)	608 (100%)	
Total	691 (96.11%)	28 (3.89%)	719 (100%)	

Table 10

Suicidal ideation on Patient Health Questionnaire item 9 by posttraumatic amnesia

	No	Yes	Total	<i>p</i>
W02				
No	175 (95.11%)	9 (4.89%)	184 (100%)	>0.9999
Yes	622 (95.11%)	32 (4.89%)	654 (100%)	
Total	797 (95.11%)	41 (4.89%)	838 (100%)	
M03				
No	164 (93.71%)	11 (6.29%)	175 (100%)	0.568
Yes	577 (94.9%)	31 (5.1%)	608 (100%)	
Total	741 (94.64%)	42 (5.36%)	783 (100%)	
M06				
No	155 (93.94%)	10 (6.06%)	165 (100%)	0.4154
Yes	547 (95.46%)	26 (4.54%)	573 (100%)	
Total	702 (95.12%)	36 (4.88%)	738 (100%)	
M12				
No	141 (95.92%)	6 (4.08%)	147 (100%)	>0.9999
Yes	509 (95.32%)	25 (4.68%)	534 (100%)	
Total	650 (95.45%)	31 (4.55%)	681 (100%)	

Table 11

Suicidal ideation on Patient Health Questionnaire item 9 by imaging results

	No	Yes	Total	<i>p</i>
W02				
CT-	611 (93.86%)	40 (6.14%)	651 (100%)	0.0063
CT+	261 (98.12%)	5 (1.88%)	266 (100%)	
Total	872 (95.09%)	45 (4.91%)	917 (100%)	
M03				
CT-	565 (93.54%)	39 (6.46%)	604 (100%)	0.0503
CT+	247 (96.86%)	8 (3.14%)	255 (100%)	
Total	812 (94.53%)	47 (5.47%)	859 (100%)	
M06				
CT-	535 (94.52%)	31 (5.48%)	566 (100%)	0.0665
CT+	245 (97.61%)	6 (2.39%)	251 (100%)	
Total	780 (95.47%)	37 (4.53%)	817 (100%)	
M12				
CT-	490 (95.33%)	24 (4.67%)	514 (100%)	0.4447
CT+	232 (96.67%)	8 (3.33%)	240 (100%)	
Total	722 (95.76%)	32 (4.24%)	754 (100%)	

Table 12

Suicidal ideation on Patient Health Questionnaire item 9 by psychiatric history

	No	Yes	Total	<i>p</i>
W02				
No	704 (96.17%)	28 (3.83%)	732 (100%)	0.0077
Yes	177 (91.24%)	17 (8.76%)	194 (100%)	
Total	881 (95.14%)	45 (4.86%)	926 (100%)	
M03				
No	656 (96.05%)	27 (3.95%)	683 (100%)	8e-04
Yes	166 (89.25%)	20 (10.75%)	186 (100%)	
Total	822 (94.59%)	47 (5.41%)	869 (100%)	
M06				
No	628 (97.36%)	17 (2.64%)	645 (100%)	<0.0001
Yes	160 (88.4%)	21 (11.6%)	181 (100%)	
Total	788 (95.4%)	38 (4.6%)	826 (100%)	
M12				
No	580 (97.81%)	13 (2.19%)	593 (100%)	<0.0001
Yes	150 (88.76%)	19 (11.24%)	169 (100%)	
Total	730 (95.8%)	32 (4.2%)	762 (100%)	

Table 13

Suicidal ideation on Patient Health Questionnaire item 9 by prior TBI

	No	Yes	Total	<i>p</i>
W02				
No	596 (96.6%)	21 (3.4%)	617 (100%)	0.0076
Yes	277 (92.33%)	23 (7.67%)	300 (100%)	
Total	873 (95.2%)	44 (4.8%)	917 (100%)	
M03				
No	564 (96.41%)	21 (3.59%)	585 (100%)	0.0011
Yes	251 (90.61%)	26 (9.39%)	277 (100%)	
Total	815 (94.55%)	47 (5.45%)	862 (100%)	
M06				
No	541 (97.3%)	15 (2.7%)	556 (100%)	<.0001
Yes	240 (91.25%)	23 (8.75%)	263 (100%)	
Total	781 (95.36%)	38 (4.64%)	819 (100%)	
M12				
No	501 (97.28%)	14 (2.72%)	515 (100%)	0.0035
Yes	222 (92.5%)	18 (7.5%)	240 (100%)	
Total	723 (95.76%)	32 (4.24%)	755 (100%)	

Table 14

Suicidal ideation on Patient Health Questionnaire item 9 by hazardous alcohol use

	No	Yes	Total	<i>p</i>
W02				
AUDIT-	512 (94.81%)	28 (5.19%)	540 (100%)	0.5252
AUDIT+	356 (95.96%)	15 (4.04%)	371 (100%)	
Total	868 (95.28%)	43 (4.72%)	911 (100%)	
M03				
AUDIT-	486 (94.55%)	28 (5.45%)	514 (100%)	>0.9999
AUDIT+	326 (94.49%)	19 (5.51%)	345 (100%)	
Total	812 (94.53%)	47 (5.47%)	859 (100%)	
M06				
AUDIT-	470 (95.33%)	23 (4.67%)	493 (100%)	>0.9999
AUDIT+	306 (95.33%)	15 (4.67%)	321 (100%)	
Total	776 (95.33%)	38 (4.67%)	814 (100%)	
M12				
AUDIT-	430 (95.98%)	18 (4.02%)	448 (100%)	0.7147
AUDIT+	288 (95.36%)	14 (4.64%)	302 (100%)	
Total	718 (95.73%)	32 (4.27%)	750 (100%)	

Table 15

Suicidal ideation on Patient Health Questionnaire item 9 by past-year drug use

	No	Yes	Total	<i>p</i>
W02				
No	649 (96.15%)	26 (3.85%)	675 (100%)	0.048
Yes	218 (92.77%)	17 (7.23%)	235 (100%)	
Total	867 (95.27%)	43 (4.73%)	910 (100%)	
M03				
No	613 (95.48%)	29 (4.52%)	642 (100%)	0.0367
Yes	195 (91.55%)	18 (8.45%)	213 (100%)	
Total	808 (94.5%)	47 (5.5%)	855 (100%)	
M06				
No	591 (96.25%)	23 (3.75%)	614 (100%)	0.035
Yes	186 (92.54%)	15 (7.46%)	201 (100%)	
Total	777 (95.34%)	38 (4.66%)	815 (100%)	
M12				
No	551 (96.67%)	19 (3.33%)	570 (100%)	0.0331
Yes	167 (92.78%)	13 (7.22%)	180 (100%)	
Total	718 (95.73%)	32 (4.27%)	750 (100%)	

Table 16

Rivermead Post-Concussion Symptoms Questionnaire score by suicidal ideation on Patient Health Questionnaire item 9

	N	Mean	SD	Min	Q1	Median	Q3	Max	<i>p</i>
W02									
No	879	17.729	14.812	0	5	14	27	61	<0.0001
Yes	46	29.609	14.378	0	17.5	31	37	59	
Overall	925	18.32	15.008	0	6	15	28	61	
M03									
No	822	13.342	14.376	0	2	8	22	63	<0.0001
Yes	47	28.936	15.823	0	16	31	40	60	
Overall	869	14.185	14.873	0	2	9	24	63	
M06									
No	788	11.981	13.646	0	0	6	19	57	<0.0001
Yes	38	30.184	20.722	0	9.5	32.5	48	60	
Overall	826	12.818	14.542	0	0	7	20	60	
M12									
No	730	11.36	13.608	0	0	6	18	59	<0.0001
Yes	32	31.312	16.746	0	18.5	35	44.5	57	
Overall	762	12.198	14.313	0	0	7	20	59	

Table 17

Modified Brief Symptom Inventory-Depression score by suicidal ideation on Patient Health Questionnaire item 9

	N	Mean	SD	Min	Q1	Median	Q3	Max	<i>p</i>
W02									
No	879	3.414	4.165	0	0	2	5	20	<0.0001
Yes	46	10.609	5.157	0	6.25	12	14	20	
Overall	925	3.772	4.498	0	0	2	6	20	
M03									
No	821	2.798	4.09	0	0	1	4	19	<0.0001
Yes	47	11.17	5.088	1	8	11	15.5	20	
Overall	868	3.251	4.559	0	0	1	5	20	
M06									
No	788	2.477	3.772	0	0	1	3	20	<0.0001
Yes	38	12.079	5.01	1	9.25	12	16	20	
Overall	826	2.919	4.33	0	0	1	4	20	
M12									
No	730	2.414	3.611	0	0	1	4	20	<0.0001
Yes	32	12.156	5.714	2	7.75	12.5	17.25	20	
Overall	762	2.823	4.2	0	0	1	4	20	