

Supplementary Materials

Supplement Table 1 Matched Sample Correlations of White Matter Integrity with PTSD

measures (n=44)

Tract	Hemisphere		PCL-C Re-experiencing	PCL-C Avoidance	PCL-C Arousal	PCL-C Total
			<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)
UNC	Left	FA	.034 (.828)	.045 (.774)	.136 (.378)	.077 (.621)
		MD	-.228 (.137)	-.168 (.276)	-.206 (.179)	-.216 (.159)
	Right	FA	.168 (.277)	-.031 (.839)	.288 (.058)	.125 (.417)
		MD	-.243 (.111)	-.132 (.392)	-.212 (.166)	-.204 (.184)
CCG	Left	FA	-.109 (.481)	-.133 (.388)	.011 (.942)	-.094 (.545)
		MD	.014 (.930)	-.106 (.493)	-.132 (.394)	-.093 (.547)
	Right	FA	-.019 (.901)	.009 (.952)	.142 (.357)	.046 (.766)
		MD	-.054 (.727)	-.077 (.621)	-.128 (.408)	-.096 (.536)
CAB	Left	FA	.100 (.519)	.170 (.269)	.134 (.387)	.158 (.306)
		MD	-.065 (.673)	.067 (.667)	-.003 (.983)	.014 (.926)
	Right	FA	.469 (.001)*	.130 (.401)	.111 (.474)	.232 (.130)
		MD	-.373 (.013)*	-.194 (.207)	-.105 (.497)	-.236 (.123)
ATR	Left	FA	-.022 (.885)	.089 (.564)	.229 (.134)	.115 (.459)
		MD	-.152 (.326)	-.144 (.352)	-.120 (.439)	-.154 (.318)
	Right	FA	-.063 (.685)	-.008 (.961)	.213 (.165)	.049 (.752)
		MD	-.215 (.162)	-.195 (.204)	-.184 (.231)	-.219 (.154)
CST	Left	FA	-.037 (.814)	.059 (.703)	.193 (.209)	.083 (.590)
		MD	-.227 (.138)	-.040 (.798)	.048 (.757)	-.067 (.665)
	Right	FA	-.067 (.667)	.045 (.773)	.158 (.304)	.056 (.717)
		MD	-.272 (.074)	.002 (.991)	.049 (.753)	-.058 (.707)
ILF	Left	FA	-.017 (.911)	.199 (.194)	.203 (.185)	.163 (.291)
		MD	-.144 (.352)	-.142 (.357)	-.208 (.175)	-.180 (.242)
	Right	FA	.139 (.370)	.024 (.877)	.230 (.133)	.126 (.414)
		MD	-.119 (.443)	-.199 (.195)	-.213 (.165)	-.204 (.185)
SLFP	Left	FA	.190 (.216)	.297 (.051)	.390 (.009)*	.331 (.028)*
		MD	-.049 (.752)	-.040 (.797)	.019 (.900)	-.027 (.860)
	Right	FA	.001 (.995)	.129 (.405)	.254 (.096)	.149 (.334)
		MD	-.091 (.558)	-.111 (.472)	-.151 (.329)	-.131 (.397)
SLFT	Left	FA	.113 (.464)	.207 (.177)	.295 (.052)	.233 (.127)
		MD	-.050 (.749)	-.083 (.594)	-.067 (.665)	-.078 (.617)
	Right	FA	.019 (.904)	.147 (.340)	.215 (.162)	.150 (.330)
		MD	-.140 (.366)	-.187 (.225)	-.218 (.156)	-.205 (.183)
FMAJOR		FA	.071 (.647)	.179 (.245)	.081 (.602)	.137 (.377)

	MD	.020 (.900)	.201 (.190)	.165 (.286)	.161 (.295)
FMINOR	FA	-.150 (.332)	.021 (.895)	.097 (.531)	.001 (.995)
	MD	-.073 (.638)	-.173 (.260)	-.210 (.171)	-.177 (.250)

* $p < .05$. No results survived Holm-Bonferroni correction. r , Pearson correlation coefficient; p , p-value.
PCL-C, PTSD Checklist Civilian; FA, fractional anisotropy; MD, mean diffusivity; UNC, uncinata fasciculus; CCG, cingulum cingulate gyrus; CAB, cingulum angular bundle; ATR, anterior thalamic radiation; CST, corticospinal tract; ILF, inferior longitudinal fasciculus; SLFP, superior longitudinal fasciculus parietal; SLFT, superior longitudinal fasciculus temporal; FMAJOR, forceps major; FMINOR, forceps minor.

Supplemental Table 2 Correlations of White Matter Integrity with PCL measures in full

sample *without gender* as factor (n=67)

Tract	Hemisphere		PCL-C Re-experiencing	PCL-C Avoidance	PCL-C Arousal	PCL-C Total
			<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)
UNC	Left	FA	-.027 (.831)	.049 (.697)	.009 (.943)	.016 (.900)
		MD	.047 (.708)	-.017 (.889)	.051 (.680)	.024 (.848)
	Right	FA	-.094 (.451)	-.163 (.187)	-.012 (.926)	-.105 (.398)
		MD	.011 (.929)	-.007 (.952)	.021 (.869)	.007 (.956)
CCG	Left	FA	-.144 (.244)	-.097 (.436)	-.016 (.901)	-.093 (.453)
		MD	.197 (.111)	.062 (.619)	.096 (.440)	.121 (.331)
	Right	FA	-.005 (.971)	-.004 (.976)	.080 (.518)	.023 (.854)
		MD	.122 (.325)	.072 (.563)	.064 (.606)	.091 (.464)
CAB	Left	FA	.138 (.267)	.178 (.149)	.112 (.365)	.158 (.201)
		MD	.053 (.673)	.054 (.667)	.068 (.583)	.062 (.617)
	Right	FA	.021 (.866)	.008 (.948)	-.024 (.850)	.003 (.983)
		MD	-.070 (.571)	-.113 (.363)	-.017 (.894)	-.077 (.534)
ATR	Left	FA	.004 (.977)	.084 (.499)	.134 (.278)	.081 (.513)
		MD	.153 (.218)	.036 (.775)	.122 (.326)	.104 (.404)
	Right	FA	-.112 (.366)	-.050 (.687)	.069 (.578)	-.035 (.776)
		MD	.134 (.280)	.018 (.885)	.084 (.497)	.078 (.532)
CST	Left	FA	-.044 (.724)	-.009 (.942)	.077 (.538)	.007 (.957)
		MD	.094 (.447)	.134 (.279)	.231 (.060)	.163 (.187)
	Right	FA	-.057 (.647)	-.017 (.890)	.063 (.610)	-.005 (.967)
		MD	.036 (.775)	.097 (.436)	.178 (.151)	.111 (.371)
ILF	Left	FA	-.157 (.206)	-.039 (.752)	-.079 (.525)	-.093 (.456)
		MD	.093 (.456)	.011 (.930)	.064 (.608)	.055 (.659)
	Right	FA	.058 (.641)	.054 (.867)	.134 (.280)	.085 (.493)
		MD	.187 (.129)	-.037 (.768)	.069 (.581)	.066 (.597)
SLFP	Left	FA	-.202 (.101)	-.037 (.763)	-.067 (.592)	-.102 (.410)
		MD	.111 (.372)	.062 (.616)	.107 (.391)	.097 (.435)
	Right	FA	-.188 (.128)	.012 (.924)	.047 (.708)	-.040 (.750)
		MD	.161 (.194)	.043 (.727)	.061 (.622)	.090 (.469)
SLFT	Left	FA	-.187 (.129)	-.038 (.762)	.010 (.938)	-.073 (.557)
		MD	.108 (.387)	.042 (.738)	.077 (.536)	.077 (.534)
	Right	FA	-.121 (.330)	.059 (.637)	.080 (.519)	.013 (.916)
		MD	.074 (.553)	-.024 (.845)	.003 (.983)	.014 (.912)
FMAJOR		FA	-.022 (.862)	.055 (.657)	.021 (.867)	.024 (.847)
		MD	.049 (.693)	.120 (.335)	.114 (.357)	.105 (.398)
FMINOR		FA	-.007 (.954)	.010 (.938)	.099 (.426)	.034 (.786)

MD	-.063 (.610)	-.110 (.377)	-.126 (.311)	-.109 (.381)
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* $p < .05$. No results survived Holm-Bonferroni correction. r , Pearson correlation coefficient; p , p-value.
PCL-C, PTSD Checklist Civilian; FA, fractional anisotropy; MD, mean diffusivity; UNC, uncinata fasciculus; CCG, cingulum cingulate gyrus; CAB, cingulum angular bundle; ATR, anterior thalamic radiation; CST, corticospinal tract; ILF, inferior longitudinal fasciculus; SLFP, superior longitudinal fasciculus parietal; SLFT, superior longitudinal fasciculus temporal; FMAJOR, forceps major; FMINOR, forceps minor.

Supplemental Table 3 Correlations of White Matter Integrity with PCL measures in full sample *without gender* as factor *without outliers* (n=60)

Tract	Hemisphere		PCL-C Re-experiencing	PCL-C Avoidance	PCL-C Arousal	PCL-C Total
			<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)
UNC	Left	FA	-.039 (.766)	.029 (.828)	.009 (.943)	.004 (.978)
		MD	-.026 (.843)	-.108 (.410)	-.019 (.887)	-.063 (.633)
	Right	FA	.052 (.693)	-.002 (.990)	.144 (.274)	.065 (.622)
		MD	-.045 (.733)	-.062 (.636)	-.034 (.796)	-.054 (.683)
CCG	Left	FA	-.153 (.242)	-.130 (.321)	-.015 (.911)	-.112 (.396)
		MD	.164 (.211)	.007 (.957)	.053 (.688)	.073 (.580)
	Right	FA	.049 (.708)	.059 (.654)	.169 (.196)	.100 (.447)
		MD	.053 (.686)	.022 (.868)	.020 (.877)	.034 (.799)
CAB	Left	FA	.037 (.780)	.077 (.561)	.008 (.952)	.048 (.713)
		MD	.047 (.723)	.066 (.617)	.089 (.497)	.075 (.570)
	Right	FA	.062 (.636)	-.041 (.758)	-.088 (.504)	-.029 (.828)
		MD	-.144 (.273)	-.124 (.345)	.025 (.851)	-.092 (.484)
ATR	Left	FA	.124 (.344)	.199 (.127)	.267 (.039)	.219 (.092)
		MD	.018 (.890)	-.081 (.541)	.009 (.943)	-.027 (.838)
	Right	FA	.046 (.726)	.086 (.513)	.252 (.052)	.139 (.288)
		MD	-.032 (.808)	-.121 (.356)	-.054 (.681)	-.083 (.530)
CST	Left	FA	.009 (.946)	.080 (.542)	.160 (.222)	.093 (.478)
		MD	.006 (.966)	.046 (.727)	.183 (.162)	.085 (.519)
	Right	FA	.054 (.681)	.117 (.374)	.187 (.152)	.133 (.309)
		MD	-.045 (.735)	.064 (.625)	.155 (.236)	.068 (.606)
ILF	Left	FA	-.134 (.306)	.064 (.628)	-.005 (.969)	-.016 (.906)
		MD	.035 (.790)	-.042 (.748)	.013 (.921)	-.003 (.980)
	Right	FA	.151 (.250)	.076 (.565)	.206 (.115)	.152 (.247)
		MD	.050 (.704)	-.095 (.473)	-.014 (.915)	-.031 (.813)
SLFP	Left	FA	-.045 (.735)	.112 (.393)	.105 (.425)	.072 (.585)
		MD	.043 (.743)	.027 (.835)	.080 (.543)	.053 (.686)
	Right	FA	-.130 (.324)	.032 (.809)	.100 (.446)	.008 (.953)
		MD	.083 (.529)	.012 (.925)	.014 (.918)	.036 (.783)
SLFT	Left	FA	-.115 (.381)	.028 (.833)	.102 (.440)	.011 (.934)
		MD	.096 (.465)	.035 (.793)	.075 (.568)	.071 (.587)
	Right	FA	-.097 (.460)	.060 (.648)	.087 (.508)	.026 (.843)
		MD	.043 (.747)	-.042 (.748)	-.020 (.861)	-.012 (.926)
FMAJOR		FA	.051 (.701)	.094 (.474)	.056 (.671)	.077 (.558)
		MD	.027 (.839)	.180 (.169)	.162 (.217)	.144 (.272)
FMINOR		FA	-.011 (.935)	.066 (.618)	.127 (.334)	.069 (.598)

MD	-.060 (.646)	-.170 (.195)	-.154 (.240)	-.148 (.260)
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* $p < .05$. No results survived Holm-Bonferroni correction. r , Pearson correlation coefficient; p , p-value.
PCL-C, PTSD Checklist Civilian; FA, fractional anisotropy; MD, mean diffusivity; UNC, uncinata fasciculus; CCG, cingulum cingulate gyrus; CAB, cingulum angular bundle; ATR, anterior thalamic radiation; CST, corticospinal tract; ILF, inferior longitudinal fasciculus; SLFP, superior longitudinal fasciculus parietal; SLFT, superior longitudinal fasciculus temporal; FMAJOR, forceps major; FMINOR, forceps minor.

Supplemental Table 4 Partial correlations of White Matter Integrity with PCL measures in full sample *with gender* as factor (n=67)

Tract	Hemisphere		PCL-C Re-experiencing	PCL-C Avoidance	PCL-C Arousal	PCL-C Total
			<i>r (p)</i>	<i>r (p)</i>	<i>r (p)</i>	<i>r (p)</i>
UNC	Left	FA	.045 (.721)	.068 (.588)	.032 (.797)	.054 (.665)
		MD	-.044 (.724)	-.040 (.741)	.024 (.848)	-.024 (.847)
	Right	FA	-.065 (.602)	-.157 (.209)	-.001 (.992)	-.090 (.473)
		MD	-.040 (.751)	-.020 (.873)	.005 (.970)	-.020 (.876)
CCG	Left	FA	-.163 (.191)	-.100 (.424)	-.019 (.877)	-.101 (.421)
		MD	.161 (.196)	.682 (.051)	.083 (.508)	.099 (.427)
	Right	FA	.000 (.999)	-.003 (.983)	.082 (.512)	.026 (.839)
		MD	.062 (.621)	.057 (.648)	.044 (.723)	.059 (.639)
CAB	Left	FA	.196 (.114)	.193 (.120)	.130 (.297)	.188 (.130)
		MD	.004 (.975)	.042 (.738)	.053 (.670)	.037 (.767)
	Right	FA	.071 (.570)	.020 (.873)	-.009 (.945)	.028 (.823)
		MD	-.132 (.292)	-.129 (.302)	-.035 (.782)	-.109 (.384)
ATR	Left	FA	-.001 (.992)	.083 (.508)	.134 (.285)	.080 (.525)
		MD	.124 (.320)	.027 (.829)	.112 (.371)	.087 (.489)
	Right	FA	-.095 (.450)	-.045 (.721)	.077 (.539)	-.024 (.849)
		MD	.098 (.431)	.008 (.950)	.072 (.565)	.057 (.648)
CST	Left	FA	-.033 (.796)	-.006 (.963)	.081 (.517)	.014 (.912)
		MD	.092 (.462)	.133 (.287)	.230 (.063)	.162 (.194)
	Right	FA	-.051 (.686)	-.015 (.905)	.066 (.596)	-.001 (.996)
		MD	.045 (.719)	.099 (.429)	.181 (.146)	.117 (.351)
ILF	Left	FA	-.086 (.494)	-.020 (.871)	-.056 (.656)	-.054 (.669)
		MD	.006 (.961)	-.012 (.925)	.037 (.767)	.009 (.944)
	Right	FA	.017 (.889)	.044 (.728)	.122 (.328)	.064 (.608)
		MD	.074 (.554)	-.075 (.549)	.032 (.801)	.000 (.999)
SLFP	Left	FA	-.171 (.169)	-.028 (.826)	-.054 (.664)	-.083 (.509)
		MD	.084 (.504)	.055 (.662)	.097 (.437)	.082 (.514)
	Right	FA	-.116 (.352)	.034 (.787)	.076 (.542)	.004 (.975)
		MD	.112 (.370)	.030 (.811)	.044 (.723)	.062 (.619)
SLFT	Left	FA	-.111 (.375)	-.017 (.894)	.040 (.752)	-.029 (.819)
		MD	.058 (.643)	.029 (.819)	.061 (.627)	.050 (.687)
	Right	FA	-.030 (.813)	.088 (.484)	.118 (.347)	.068 (.588)
		MD	-.007 (.955)	-.047 (.710)	-.025 (.845)	-.031 (.806)
FMAJOR		FA	-.053 (.671)	.048 (.700)	.011 (.928)	.009 (.945)
		MD	-.020 (.876)	.106 (.399)	.095 (.447)	.072 (.568)
FMINOR		FA	.045 (.717)	.023 (.855)	.118 (.347)	.062 (.619)

MD	-.135 (.278)	-.129 (.302)	-.150 (.228)	-.148 (.237)
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* $p < .05$. No results survived Holm-Bonferroni correction. r , Pearson correlation coefficient; p , p-value.
PCL-C, PTSD Checklist Civilian; FA, fractional anisotropy; MD, mean diffusivity; UNC, uncinat fasciculus; CCG, cingulum cingulate gyrus; CAB, cingulum angular bundle; ATR, anterior thalamic radiation; CST, corticospinal tract; ILF, inferior longitudinal fasciculus; SLFP, superior longitudinal fasciculus parietal; SLFT, superior longitudinal fasciculus temporal; FMAJOR, forceps major; FMINOR, forceps minor.

Supplemental Table 5 Partial correlations of White Matter Integrity with PCL measures in full sample *with gender* as factor *without outliers* (n=60)

Tract	Hemisphere		PCL-C Re-experiencing	PCL-C Avoidance	PCL-C Arousal	PCL-C Total
			<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)	<i>r</i> (<i>p</i>)
UNC	Left	FA	.045 (.733)	.053 (.692)	.035 (.792)	.050 (.709)
		MD	-.129 (.330)	-.140 (.290)	-.049 (.715)	-.119 (.368)
	Right	FA	.068 (.608)	.002 (.989)	.148 (.263)	.073 (.584)
		MD	-.099 (.456)	-.077 (.564)	-.049 (.710)	-.082 (.538)
CCG	Left	FA	-.179 (.174)	-.136 (.305)	-.020 (.880)	-.123 (.354)
		MD	.133 (.317)	-.003 (.981)	.042 (.752)	.053 (.687)
	Right	FA	.066 (.617)	.063 (.635)	.174 (.187)	.109 (.411)
		MD	-.001 (.994)	.007 (.955)	.004 (.974)	.005 (.973)
CAB	Left	FA	.093 (.485)	.092 (.489)	.023 (.860)	.078 (.559)
		MD	-.008 (.951)	.052 (.694)	.075 (.574)	.047 (.724)
	Right	FA	.093 (.483)	-.034 (.800)	-.081 (.544)	-.015 (.912)
		MD	-.189 (.152)	-.135 (.308)	.014 (.914)	-.113 (.393)
ATR	Left	FA	.123 (.354)	.198 (.133)	.266 (.042)	.219 (.096)
		MD	-.008 (.952)	-.088 (.507)	.002 (.990)	-.042 (.755)
	Right	FA	.062 (.639)	.090 (.497)	.257 (.049)	.149 (.261)
		MD	-.063 (.633)	-.130 (.327)	-.063 (.635)	-.100 (.453)
CST	Left	FA	.022 (.871)	.084 (.529)	.164 (.214)	.101 (.446)
		MD	.002 (.991)	.045 (.734)	.182 (.167)	.084 (.528)
	Right	FA	.066 (.621)	.120 (.367)	.191 (.148)	.140 (.291)
		MD	-.038 (.774)	.067 (.615)	.159 (.230)	.073 (.581)
ILF	Left	FA	-.056 (.671)	.090 (.499)	-.141 (.287)	.030 (.820)
		MD	-.056 (.674)	-.069 (.604)	-.013 (.920)	-.053 (.692)
	Right	FA	.121 (.363)	.067 (.616)	.197 (.135)	.135 (.308)
		MD	-.084 (.527)	-.141 (.287)	-.056 (.673)	-.109 (.413)
SLFP	Left	FA	.008 (.952)	.129 (.332)	.123 (.354)	.103 (.438)
		MD	.023 (.864)	.022 (.870)	.074 (.577)	.042 (.750)
	Right	FA	-.050 (.709)	.057 (.668)	.131 (.322)	.056 (.674)
		MD	.033 (.802)	-.001 (.991)	-.002 (.989)	.009 (.947)
SLFT	Left	FA	-.035 (.794)	.053 (.692)	.133 (.317)	.059 (.657)
		MD	.050 (.708)	.022 (.870)	.062 (.644)	.046 (.728)
	Right	FA	-.009 (.946)	.088 (.505)	.120 (.365)	.079 (.554)
		MD	-.039 (.769)	-.066 (.619)	-.045 (.735)	-.057 (.667)
FMAJOR		FA	.028 (.831)	.088 (.506)	.049 (.711)	.065 (.622)
		MD	-.048 (.718)	.166 (.208)	.145 (.272)	.110 (.405)
FMINOR		FA	.039 (.772)	.080 (.548)	.143 (.279)	.097 (.464)

MD	-.133 (.317)	-.192 (.145)	-.178 (.178)	-.188 (.153)
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* $p < .05$. No results survived Holm-Bonferroni correction. r , Pearson correlation coefficient; p , p-value.
PCL-C, PTSD Checklist Civilian; FA, fractional anisotropy; MD, mean diffusivity; UNC, uncinata fasciculus; CCG, cingulum cingulate gyrus; CAB, cingulum angular bundle; ATR, anterior thalamic radiation; CST, corticospinal tract; ILF, inferior longitudinal fasciculus; SLFP, superior longitudinal fasciculus parietal; SLFT, superior longitudinal fasciculus temporal; FMAJOR, forceps major; FMINOR, forceps minor.