Supplementary Material

1   Supplementary Tables

Supplementary Table 1. Group differences of demographic characteristics between ASD with low and high CATS.

	ASD with low CATS (n = 31)	ASD with high CATS (n = 32)	T, Umar χ^2	*p*-value
Age, mean (SD)	26.9 (6.7)	27.6 (7.5)	509	0.86
Duration of education, mean (SD)	15.0 (2.5)	14.9 (2.1)	489	0.92
IQ, mean (SD)	103.9 (11.8)	98.2 (11.7)	369.5	0.082
Sex, male (%)	23 (74.2)	25 (78.1)	0.13	0.77
Handedness, right (%)	29 (93.5)	29 (90.6)	0.18	1.00
AQ-J, mean (SD)	30.9 (6.0)	31.9 (8.5)	563.5	0.35
ADOS-2, mean (SD)	15.6 (3.4)	15.3 (2.8)	492	0.96
CATS, mean (SD)				
total	23.9 (8.6)	63.5 (21.3)	992	< 0.001
punishment	7.5 (3.7)	12.7 (4.9)	-4.8	< 0.001
sexual abuse	0.2 (0.9)	0.9 (1.5)	623	0.016

neglect	8.0 (4.4)	22.2 (8.2)	-8.6	< 0.001
emotional abuse	5.1 (2.6)	16.8 (6.7)	-9.1	< 0.001
others	3.2 (2.2)	10.9 (6.1)	896	< 0.001

ASD, autism spectrum disorder; CATS, Child Abuse Traumatic Scale; IQ, intelligence quotient, AQ-J, Autism Questionnaire.

Supplementary Table 2. Group comparisons of each diffusion parameter among ASD with low and high CATS and TD subjects.

		ASD with low CATS	ASD with high CATS	TD	*F*	*p-value*
UF	right FA	0.413 (0.018)	0.408 (0.019)	0.420 (0.022)	1.6	0.22
	left FA	0.414 (0.019)	0.403 (0.020)	0.417 (0.019)	2.7	0.072
	right MD	0.721 (0.033)	0.719 (0.022)	0.725 (0.027)	0.14	0.87
	left MD	0.741 (0.026)	0.747 (0.025)	0.752 (0.023)	0.47	0.63
	right RD	0.547 (0.029)	0.547 (0.018)	0.546 (0.027)	0.58	0.56
	left RD	0.560 (0.024)	0.569 (0.020)	0.566 (0.023)	1.6	0.21
Ci	right FA	0.516 (0.033)	0.507 (0.037)	0.531 (0.029)	0.78	0.46
	left FA	0.461 (0.042)	0.454 (0.045)	0.483 (0.036)	2.8	0.066

	right MD	0.684 (0.035)	0.686 (0.028)	0.698 (0.022)	0.14	0.71
	left MD	0.673 (0.034)	0.677 (0.026)	0.683 (0.026)	0.50	0.48
	right RD	0.465 (0.030)	0.469 (0.031)	0.463 (0.029)	0.36	0.55
	left RD	0.486 (0.027)	0.493 (0.031)	0.483 (0.030)	3.0	0.052
ATR	right FA	0.418 (0.025)	0.417 (0.026)	0.423 (0.020)	0.04	0.96
	left FA	0.422 (0.020)[†]	0.414 (0.016)[†]	0.441 (0.020)	11.9	< 0.001[*]
	right MD	0.688 (0.023)	0.688 (0.024)	0.689 (0.018)	0.61	0.54
	left MD	0.688 (0.019)	0.694 (0.021)	0.696 (0.024)	1.4	0.26
	right RD	0.521 (0.022)	0.521 (0.024)	0.519 (0.023)	0.37	0.69
	left RD	0.516 (0.019)[†]	0.526 (0.018)[†,††]	0.514 (0.021)	6.8	0.002[*]

ASD, autism spectrum disorder; TD, typically developed; CATS, Child Abuse and Traumatic Scale; UF, uncinate fasciculus;

ATR, anterior thalamic radiation; CST, corticospinal tract; FA, fractional anisotropy; MD, mean diffusivity; RD, radial diffusivity.

[*]; significant group effect of ANCOVA, p<0.083.

[†]; significant difference compared to TD participants, $p<0.05$; [††]; significant difference compared to ASD with low CATS, $p<0.05$.