

Table S1: Brain regions showing a main effect of group on gray matter volume

Cerebral regions	Hemisphere	Local Maxima, F	Number of significant voxels in cluster	MNI Coordinates		
				X	Y	Z
Amygdala	L	7.15 ^a	44	-30	5	-18
	R	8.55 ^a	235	30	4	-20
Dorsomedial PFC	L	8.11	81	-4	66	28
Caudate nucleus	L	7.99	49	-15	-18	21
Fusiform gyrus	L	8.49	40	-36	-79	-12
Frontal operculum	L	9.01	50	-51	12	22
Inferior occipital cortex	L	10.27	66	-24	-88	-5
Mid-occipital cortex	R	7.67	31	40	-82	4
Supplementary motor area	R	9.07	163	9	-7	67

Abbreviations: MNI, Montreal Neurological Institute; PFC, prefrontal cortex.

^a p<.05, Family-Wise Error (small-volume correction)

Gray matter reductions in all other regions met the criteria of p≤.001, uncorrected, for ≥ 10 contiguous voxels

Table S2: Gray matter differences between the early-onset and adolescence-onset CD groups

Cerebral regions	Hemisphere	Local Maxima, Z	Number of significant voxels in cluster	MNI Coordinates		
				X	Y	Z
<i>AO-CD>EO-CD</i>						
Frontal operculum	L	3.41	289	-33	3	27
	R	3.01	13	52	12	3
Cerebellum	L	3.09	48	-22	-61	-32
	R	3.21	104	3	-51	-22
Angular gyrus	R	3.10	57	44	-74	29
<i>EO-CD>AO-CD</i>						
Superior temporal gyrus	L	3.25	111	-66	-26	11
	L	3.27	34	-4	-58	4
Posterior cingulate	L	3.38	252	-10	-13	8
	L	3.78	335	-6	11	63
Supplementary motor area	R	3.87	361	10	-7	69
	R	3.24	100	60	-10	42
Precentral gyrus	R	3.32	44	58	-24	48
Postcentral gyrus	R					

Abbreviations: AO-CD, adolescence-onset Conduct Disorder; EO-CD, early-onset Conduct Disorder; MNI, Montreal Neurological Institute
Gray matter volume reductions in all regions met the criteria of $p \leq .001$ uncorrected for ≥ 10 contiguous voxels

Table S3: Regions showing significant negative or positive correlations between gray matter volume and lifetime/ever CD symptoms, when considering the CD participants only (n=63)

Cerebral regions	Hemisphere	Local Maxima, Z	Number of significant voxels in cluster	MNI Coordinates		
				X	Y	Z
<i>Negative correlations</i>						
Insula	R	3.57 ^a	103	47	1	4
Cerebellum	L	4.04	379	-26	-39	-36
	R	3.67	763	22	-30	-23
	R	3.55	402	36	-61	-33
	R	3.13	33	3	-58	-27
Inferior temporal gyrus	L	3.51	63	-50	-48	-9
Posterior cingulate	R	3.39	94	8	-36	30
Inferior frontal gyrus	R	3.19	26	44	28	-8
<i>Positive correlations</i>						
Precuneus	R	3.43	117	10	-81	39
Dorsomedial PFC	L	3.32	83	-8	56	37
	R	3.53	63	8	59	36

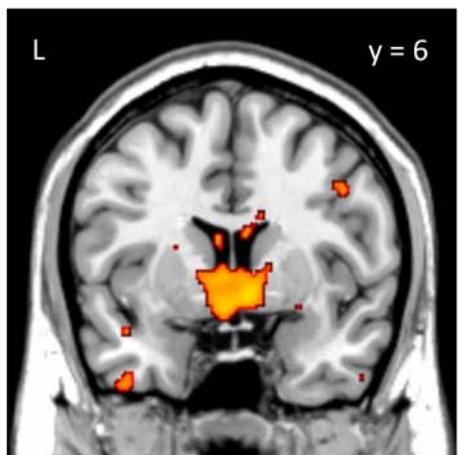
Abbreviations: CD, Conduct Disorder; MNI, Montreal Neurological Institute; PFC, prefrontal cortex

^a p≤.05, Family-Wise Error (small-volume correction)

Gray matter reductions in all other regions met the criteria of p≤.001 uncorrected for ≥10 contiguous voxels

Supplementary Figure 1

A



Positive correlation
with CU traits

B



Positive correlation
with CU traits

Figure Legend: Panels A and B show the focus of the positive correlation between striatal gray matter volumes and self-reported callous-unemotional traits, when considering the CD participants only ($n = 63$). The images are thresholded at $p < 0.005$, uncorrected, for display purposes. The color bar, which ranges from red to white, represents t statistics. CU traits, callous-unemotional traits.