Supplementary Table 1. Cortical and white matter areas in which neurite density index, orientation dispersion index and total sodium concentration have been computed

Areas	Structures	Side
Grey Matter		
Cerebellum Grey Matter	Vermis, Lobes	L+R
Thalamus	Thalamus	L; R
Limbic Lobe	ACgG, MCgG, PCgG, PHG, Ent, Amigdala, Hippocampus	L; R
Hippocampus	Hippocampus	L; R
Insula	AIns, PIns	L; R
Orbitofrontal cortex	AOrG, POrG, MOrG, LOrG, GRe, SCA	L; R
Medial Frontal cortex	Medial Frontal cortex	L; R
Middle Frontal gyrus	Middle Frontal gyrus	L; R
Superior Frontal gyrus	SFG, MSFG	L; R
Inferior Frontal gyrus	OpIFG, OrIFG, TrIFG	L; R
Precentral gyrus	MPrG, PrG	L; R
Operculum	CO, FO, PO	L; R
Postcentral gyrus	PoG, MPoG	L; R
Cognitive Areas of the Parietal lobe	AnG, PCu, SMG, SPL	L; R
Superior-lateral Temporal lobe	MTG, TTG, STG, PP, PT	L; R
Medial-inferior Temporal lobe	FuG, ITG, TMP	L; R
Primary Visual cortex	Calc, Cun, OCP	L; R
Lingual gyrus	Lingual gyrus	L; R
Associative Areas of the Occipital lobe	IOG, MOG, SOG, OFuG	L; R
White Matter		
Cerebellar white matter		L+ R
Insular white matter		L+ R
Frontal white matter		L+R
Parietal white matter		L+ R
Temporal white matter		L+ R
Occipital white matter		L+ R
Corpus Callosum		**-**

Note: parcellations were based on the the Desikan-Killiany-Tourville protocol (Klein and Tourville, 2012)

Abbreviations: ACgG: anterior cingulate gyrus; MCgG: middle cingulate gyrus; PCgG: posterior cingulate gyrus; PHG: parahippocampal gyrus; Ent: entorhinal area; AIns: anterior insula; Pins: posterior insula; AOrG: anterior orbital gyrus; POrG: posterior orbital gyrus;

MOrG: medial orbital gyrus; LOrG: lateral orbital gyrus; GRe: gyrus rectus; SCA:sub-callosal area; SFG: superior frontal gyrus; MSFG: superior frontal gyrus medial segment; OpIFG: opercular part of the inferior frontal gyrus; OrIFG: orbital part of the inferior frontal gyrus; TrIFG: triangular part of the inferior frontal gyrus; MPrG: precentral gyrus medial segment; PrG: precentral gyrus; CO: central operculum; FO: frontal operculum; PO: parietal operculum; PoG: postcentral gyrus; MPoG: postcentral gyrus medial segment; AnG: angular gyrus; PCu: pre-cuneus; SMG: supramarginal area; SPL: superior parietal lobule; MTG: middle temporal gyrus; TTG: transverse temporal gyrus; STG: superior temporal gyrus; PP: planum polare: PT: planum temporale; FuG: fusiform gyrus; ITG: inferior temporal gyrus; TMP: temporal pole; Calc: calcarine cortex; Cun: cuneus; OCP: occipital pole; IOG: inferior occipital gyrus MOG: middle occipital gyrus; SOG: superior occipital gyrus; OFuG: occipital fusiform gyrus.

Supplementary Table 2. Borderline significant association (0.01<p-value<0.05) between clinical parameters and neurite density index, orientation dispersion index and total sodium concentration

Dependent Variable	Independent Variable	Unstandardized coefficient (B)	Confidence Interval 95%	p-value	R^2
9-hole peg test	Left limbic lobe TSC	0.52	0.12 to 0.93	0.012	0.19
SDMT (z-score)	Left frontal middle gyrus ODI	0.06	0.0004 to 0.01	0.038	0.11
CVLT-II (z-score)	Right primary visual cortex NDI	-0.09	-0.02 to -0.0004	0.039	0.12
BVMT-R (z-score)	Right operculum ODI	-0.01	-0.02 to -0.001	0.028	0.12
With T2-hyprintese lesion volume as covariate					
9-hole peg test	Left limbic lobe TSC	0.52	0.12 to 0.93	0.012	0.19
SDMT (z-score)	Left frontal middle gyrus ODI	0.06	0.0003 to 0.01	0.04	0.11
CVLT-II (z-score)	Right primary visual cortex NDI	-0.09	-0.02 to -0.0006	0.037	0.12
BVMT-R (z-score)	Right operculum ODI	-0.01	-0.02 to -0.0009	0.031	0.12
With brain parenchymal fraction as covariate					
9-hole peg test	Left limbic lobe TSC	0.52	0.12 to 0.93	0.012	0.19
SDMT (z-score)	Left frontal middle gyrus ODI	0.06	-0.000009 to 0.01	0.05	0.11
CVLT-II (z-score)	Right primary visual cortex NDI	-0.08	-0.02 to 0.0003	0.057	0.12
BVMT-R (z-score)	Right operculum ODI	-0.009	-0.02 to -0.00009	0.048	0.12

Note: results are from linear regression model

Abbreviations: SDMT: symbol digit modality test; CVLT-II: California Verbal Learning Test-II; BVMT-R: brief visuospatial memory test-revised