

Table 4. Studies investigating the connectome in ADHD, BD, OCD and PTSD.

Study	Participants	Age of patients	of Medication	Global signal regression	Modality/ MR Scanner	Node definition	Node number	Edge definition	Network type	C_p	γ	E_{loc}	L_p	λ	E_{glob}	σ	Small-worldness alteration
ADHD																	
Wang et al. ¹¹¹ (2009)	19P-I+C vs 20C	13.6±1.5	NA	Yes	fMRI/3T	AAL	90	Pearson correlation	B	NA	NA	↑	NA	NA	=	NA	Regularization
Xia et al. ¹¹² (2014)	22P-C vs 22C	11.6±2.9	9 Medication-free for 48 hours	Yes	fMRI/3T	AAL	68	Pearson correlation	B	NA	NA	↓	NA	NA	=	NA	Randomization
Cocchi et al. ¹¹³ (2012)	16P vs 15C	23.8±1.0	Drug-naïve	NA	fMRI/3T	AAL	90	Pearson correlation	B	=	=	NA	=	=	NA	=	=
Cao et al. ¹¹⁴ (2013)	30P-I+C vs 30C	10.3±1.9	Drug-naïve	-	DTI/3T	AAL	90	Probabilistic tractography	W	=	=	=	↑	↑	↓	NA	Regularization
Sidlauskaite et al. ¹¹⁵ (2015)	18P-I+C vs 21C	30.1±9.8	9 Medication-free ≥ 24 hours	-	DTI/3T	AAL	116	Deterministic tractography	B	=	=	NA	NA	=	=	=	=
BD																	
Manelis et al. ⁸⁴ (2016)	31P-I vs 36C	33.4±8.4	Medication	NA	fMRI/3T	ICA	21	IMaGES algorithm	NA	NA	NA	NA	↑	NA	NA	NA	Regularization
He et al. ⁹² (2016)	13P-I+II vs 33C	35.2±10.3	Drug-naïve Medication-free ≥ 3 weeks	NA	fMRI/3T	ICA	48	Pearson correlation	W	=	NA	=	=	NA	=	NA	=
Spielberg et al. ¹¹⁶ (2016)	60P-I+II vs 30C	33.0±10.0	Medication-free ≥ 2 weeks	NA	fMRI/3T	Craddock atlas	181	Pearson correlation	W	↑	NA	NA	NA	NA	↓	NA	Regularization
Collin et al. ¹¹⁷ (2016)	216P-I vs 144C	47.4±12.1	93 Medication 109 Drug-naïve 14 NA	-	DTI/3T	DKA	219	Deterministic tractography	W	NA	NA	NA	NA	NA	↓	NA	Regularization
Leow et al. ¹¹⁸ (2013)	25P-I vs 24C	41.6±12.7	23 Medication 2 Drug-naïve	-	DTI/3T	FreeSurfer	87	Deterministic tractography	W	↓	NA	NA	↑	NA	↓	NA	Weaker small-worldization
OCD																	
Zhang et al. ¹² (2011)	18P vs 16C	23.3±5.0	13 Medication	Yes	fMRI/3T	AAL	90	Pearson correlation	B	NA	↑	NA	NA	=	NA	NA	Regularization
Shin et al. ¹¹⁹ (2014)	25P vs 23C	26.3±6.2	Drug-naïve	Yes	fMRI/3T	Functional ROI	142	Pearson correlation	W	NA	↓	↓	NA	=	=	↓	Randomization
Jung et al. ¹²⁰ (2017)	61P vs 61C	26.1±7.2	Drug-naïve	NA	fMRI/3T	AAL	17	Pearson correlation	B	NA	↓	NA	NA	↓	NA	↓	Randomization
Armstrong et al. ¹²¹ (2016)	21P vs 20C	12.7±2.8	18 Drug-naïve 2 Medication 1 Medication-free	NA	fMRI/3T	HOA	100	Pearson correlation	B	NA	NA	NA	NA	NA	=	↓	UD
Zhong et al. ¹²² (2014)	26P vs 39C	28.8±7.6	Drug-naïve	-	DTI/3T	AAL	90	Deterministic tractography	W	=	↑	=	↑	↑	↓	=	Regularization
Reess et al. ¹²³ (2016)	41P vs 42C	32.5±10.0	29 Medication 12 Drug-naïve and medication-free ≥ 3 weeks	-	DTI/3T	Freesurfer	83	Deterministic tractography	W	NA	=	NA	NA	=	NA	NA	=
Kim et al. ¹²⁴ (2013)	32P vs 35C	24.8±6.4	23 Drug-naïve 9 Medication-free for ≥ 4 weeks	-	sMRI/1.5T	Destrieux atlas	148	Partial correlation	B	NA	NA	=	NA	NA	=	NA	=
PTSD																	

Lei et al. ¹¹ (2015)	76P vs 76C	42.1±10.1	Drug-naïve	Yes	fMRI/3T	AAL	90	Partial correlation	B	↑	=	↑	↓	=	↑	=	Stronger small-worldization
Suo et al. ¹²⁵ (2015)	24P vs 24C	13.0±1.8	Drug-naïve	Yes	fMRI/3T	AAL	90	Partial correlation	B	↑	=	↑	=	↑	=	=	Regularization
Long et al. ¹²⁶ (2013)	17P vs 15C	30.8±8.7	Medication-free ≥ 2 months	-	DTI/3T	AAL	90	Deterministic tractography	W	=	=	=	↓	↓	=	=	Randomization
Suo et al. ¹²⁷ (2017)	24P vs 23C	13.0±1.7	Drug-naïve	-	DTI/3T	AAL	90	Deterministic tractography	B	=	=	↓	↑	=	↓	=	Weaker small-worldization
Mueller et al. ¹²⁸ (2015)	40P vs 45C	32.7±7.7	9 Medication	-	sMRI/3T	FreeSurfer	80	Pearson correlation	B	=	NA	NA	NA	NA	=	↓	UD

Abbreviations: ADHD, attention-deficit/hyperactivity disorder; BD, bipolar disorder; OCD, obsessive-compulsive disorder; PTSD, posttraumatic stress disorder; fMRI, functional magnetic resonance imaging; DTI, diffusion tensor imaging; sMRI, structural magnetic resonance; AAL, automated anatomical labeling; ICA, independent component analysis; DKA, Desikan-Killiany Atlas; ROI, regions of interest; HOA, Harvard-Oxford atlas; B, binary; W, weighted; C_p, clustering coefficient; γ , normalized clustering coefficient; E_{loc}, local efficiency; L_p, characteristic path length; λ , normalized characteristic path length; E_{glob}, global efficiency; σ , small-worldness; NA, not available; =, not different; UD, undefined.