

The Detection of White Matter Alterations in Obsessive-Compulsive Disorder Revealed by TRActs Constrained by UnderLying Anatomy (TRACULA)

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Table S1 Whole values and *p* values of 18 major white matter tracts

	FA	RD*	AD*	MD*
Forceps major				
OCD	0.5867 (0.5693-0.6109)	0.5756 (0.5437-0.6218)	1.5954 (1.5586-1.6647)	0.9222 (0.8861-0.9605)
HC	0.5967 (0.5794-0.6206)	0.5382 (0.4979-0.5910)	1.6230 (1.5650-1.6519)	0.8883 (0.8565-0.9433)
Forceps minor				
OCD	0.4869 (0.4744-0.5017)	0.5994 (0.5751-0.6187)	1.3976 (1.3609-1.4412)	0.8652 (0.8444-0.8852)
HC	0.4753 (0.4581-0.4990)	0.6133 (0.5741-0.6270)	1.3944 (1.3480-1.4118)	0.8722 (0.8386-0.8883)
lh. anterior thalamic radiation				
OCD	0.3790 (0.3718-0.3969)	0.5921 (0.5830-0.6056)	1.1004 (1.0821-1.1168)	0.7566 (0.7525-0.7718)
HC	0.3869 (0.3694-0.3984)	0.5904 (0.5775-0.6078)	1.0912 (1.0778-1.1124)	0.7594 (0.7456-0.7726)
lh. cingulum-angular (infracallosal) bundle				
OCD	0.2950 (0.2728-0.3251)	0.7573 (0.7268-0.7740)	1.1945 (1.1674-1.2167)	0.8981 (0.8774-0.9284)
HC	0.2900 (0.2765-0.3130)	0.7612 (0.7396-0.7787)	1.2022 (1.1788-1.2248)	0.9102 (0.8943-0.9222)
lh. cingulum-cingulate gyrus (supracallosal) bundle				
OCD	0.5339 (0.5127-0.5583)	0.5263 (0.5106-0.5436)	1.3184 (1.2919-1.3570)	0.7903 (0.7747-0.8070)
HC	0.5508	0.5167	1.3331	0.7952

	(0.5164-0.5700)	(0.4911-0.5547)	(1.2934-1.3731)	(0.7741-0.8077)
Ih. corticospinal tract				
OCD	0.5410 (0.5203-0.5542)	0.4709 (0.4609-0.4886)	1.2184 (1.2034-1.2397)	0.7248 (0.7175-0.7268)
HC	0.5288 (0.5063-0.5598)	0.4845 (0.4619-0.5033)	1.2135 (1.1766-1.2338)	0.7284 (0.7149-0.7387)
Ih. inferior longitudinal fasciculus				
OCD	0.4764 (0.4577-0.4939)	0.5858 (0.5703-0.5993)	1.2979 (1.2605-1.3240)	0.8175 (0.8074-0.8368)
HC	0.4613 (0.4459-0.4909)	0.6007 (0.5654-0.6102)	1.2738 (1.2526-1.3133)	0.8233 (0.8084-0.8309)
Ih. superior longitudinal fasciculus-parietal bundle				
OCD	0.4234 (0.4003-0.4345)	0.5629 (0.5565-0.5847)	1.0884 (1.0676-1.1091)	0.7428 (0.7298-0.7532)
HC	0.4222 (0.4034-0.4305)	0.5678 (0.5555-0.5821)	1.0863 (1.0683-1.1145)	0.7469 (0.7291-0.7562)
Ih. superior longitudinal fasciculus-temporal bundle				
OCD	0.4507 (0.4311-0.4700)	0.5460 (0.5316-0.5755)	1.1135 (1.1113-1.1520)	0.7395 (0.7300-0.7578)
HC	0.4481 (0.4381-0.4687)	0.5472 (0.5390-0.5628)	1.1248 (1.1053-1.1539)	0.7413 (0.7342-0.7566)
Ih. uncinate fasciculus				
OCD	0.3540 (0.3290-0.3707)	0.6737 (0.6600-0.7026)	1.1814 (1.1615-1.2145)	0.8497 (0.8284-0.8612)
HC	0.3559 (0.3313-0.3709)	0.6797 (0.6602-0.7051)	1.1851 (1.1711-1.2140)	0.8494 (0.8378-0.8736)
rh. anterior thalamic radiation				

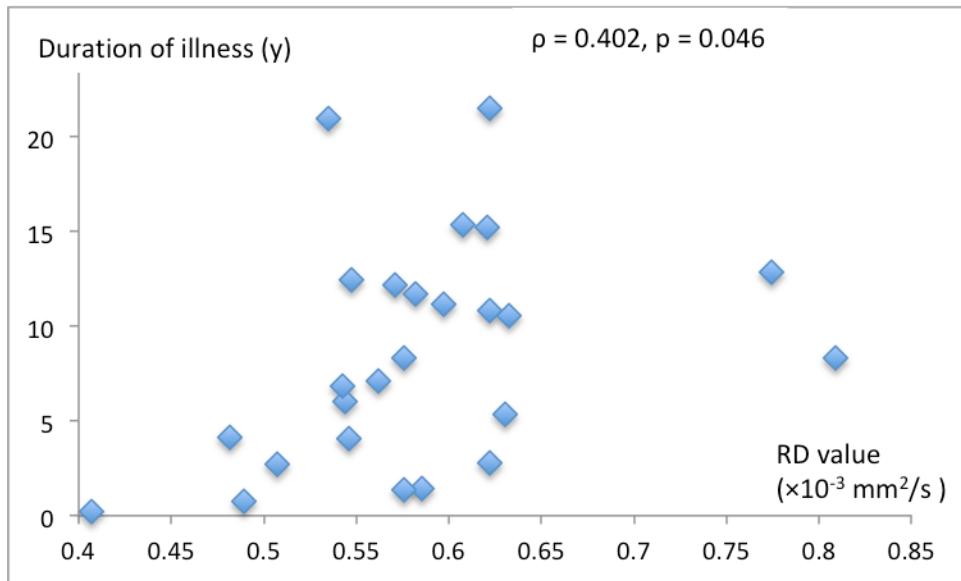
OCD	0.3908 (0.3769-0.4060)	0.6026 (0.5903-0.6204)	1.1391 (1.1157-1.1572)	0.7802 (0.7685-0.7994)
HC	0.3905 (0.3773-0.4036)	0.6050 (0.5916-0.6199)	1.1361 (1.1096-1.1527)	0.7820 (0.7646-0.7939)
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rh. cingulum-angular (infracallosal) bundle				
OCD	0.2872 (0.2727-0.3152)	0.7557 (0.7360-0.7761)	1.1807 (1.1642-1.2271)	0.9030 (0.8888-0.9183)
HC	0.2729 (0.2562-0.3034)	0.7838 (0.7657-0.8031)	1.2072 (1.1691-1.2427)	0.9265 (0.9106-0.9445)
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rh. cingulum-cingulate gyrus (supracallosal) bundle				
OCD	0.4739 (0.4442-0.4980)	0.5869 (0.5571-0.6050)	1.2724 (1.2348-1.3083)	0.8039 (0.7955-0.8242)
HC	0.4655 (0.4434-0.5097)	0.5822 (0.5480-0.6047)	1.2505 (1.2310-1.3029)	0.8016 (0.7874-0.8182)
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rh. corticospinal tract				
OCD	0.4970 (0.4772-0.5141)	0.5044 (0.4901-0.5274)	1.1710 (1.1512-1.210)	0.7377 (0.7186-0.7431)
HC	0.4917 (0.4800-0.5037)	0.5080 (0.4962-0.5262)	1.1568 (1.1390-1.1906)	0.7335 (0.7184-0.7415)
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rh. inferior longitudinal fasciculus				
OCD	0.4466 (0.4225-0.4529)	0.6238 (0.6123-0.6394)	1.3000 (1.2603-1.3208)	0.8438 (0.8334-0.8669)
HC	0.4411 (0.4091-0.4593)	0.6304 (0.5899-0.6560)	1.2709 (1.2310-1.3137)	0.8464 (0.8317-0.8587)
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rh. superior longitudinal fasciculus-parietal bundle				
OCD	0.4093 (0.3957-0.4287)	0.5839 (0.5708-0.6022)	1.1204 (1.0726-1.1288)	0.7606 (0.7445-0.7794)
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HC	0.4076	0.5868	1.1107	0.7586
	(0.3934-0.4325)	(0.5671-0.5965)	(1.0886-1.1378)	(0.7491-0.7737)
<hr/> rh. superior longitudinal fasciculus-temporal bundle				
OCD	0.4190	0.5669	0.4190	0.7582
	(0.3987-0.4371)	(0.5587-0.5924)	(0.3987-0.4371)	(0.7477-0.7641)
HC	0.4153	0.5688	0.4153	0.7529
	(0.4040-0.4440)	(0.5585-0.5838)	(0.4040-0.4440)	(0.7413-0.7605)
<hr/> rh. uncinate fasciculus				
OCD	0.3618	0.6576	1.1770	0.8354
	(0.3346-0.3714)	(0.6449-0.6846)	(1.1567-1.1912)	(0.8188-0.8482)
HC	0.3568	0.6610	1.1797	0.8370
	(0.3315-0.3764)	(0.6483-0.6828)	(1.1415-1.2138)	(0.8166-0.8496)

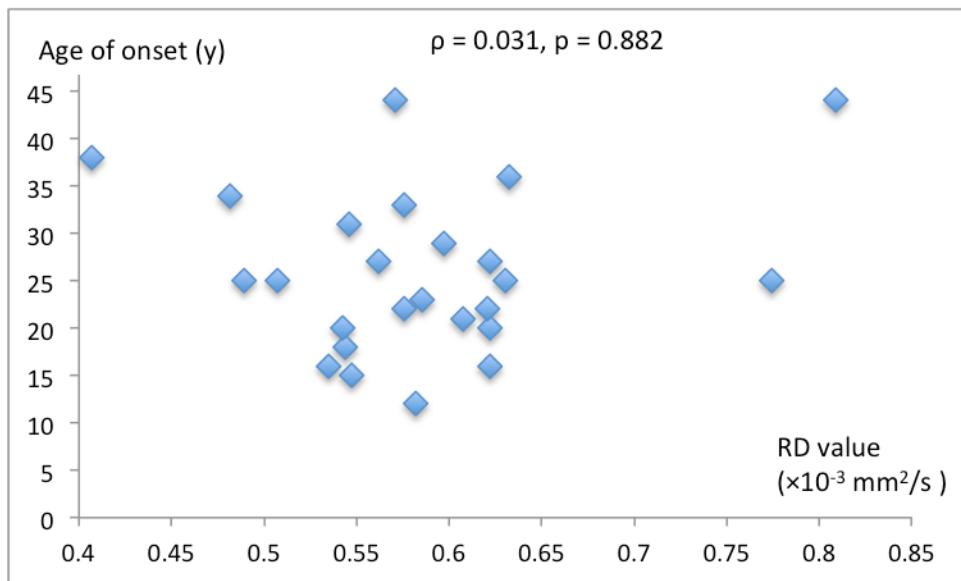
Notes: Diffusivity parameters that showed significance revealed by the logistic regression analysis are represented in bold. Values represent the median (interquartile range). * units = $\times 10^{-3}$ mm 2 /s.

Abbreviations: FA, fractional anisotropy; RD, radial diffusivity; AD, axial diffusivity; MD, mean diffusivity; OCD, obsessive-compulsive disorder; HC, healthy control; lh., left; rh., right.

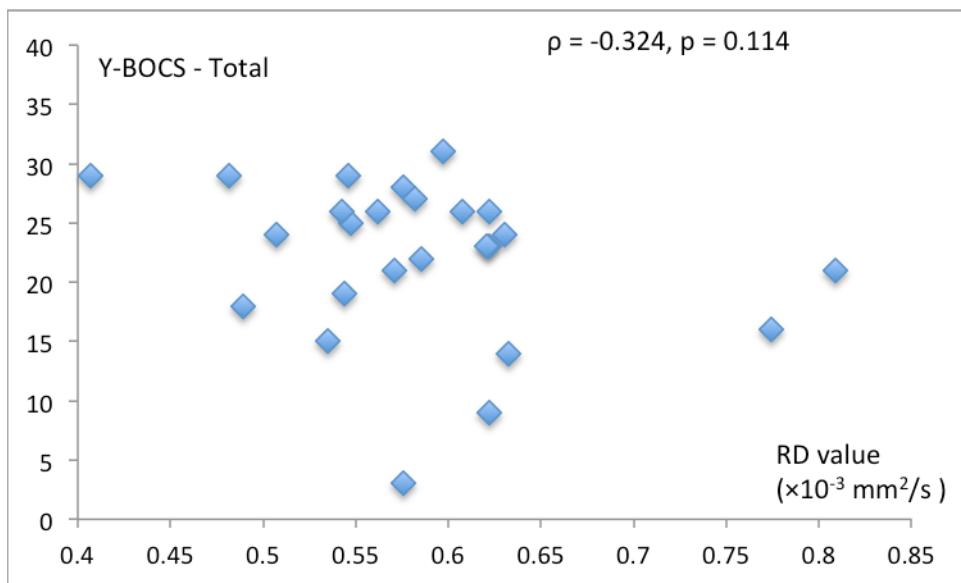
(A)



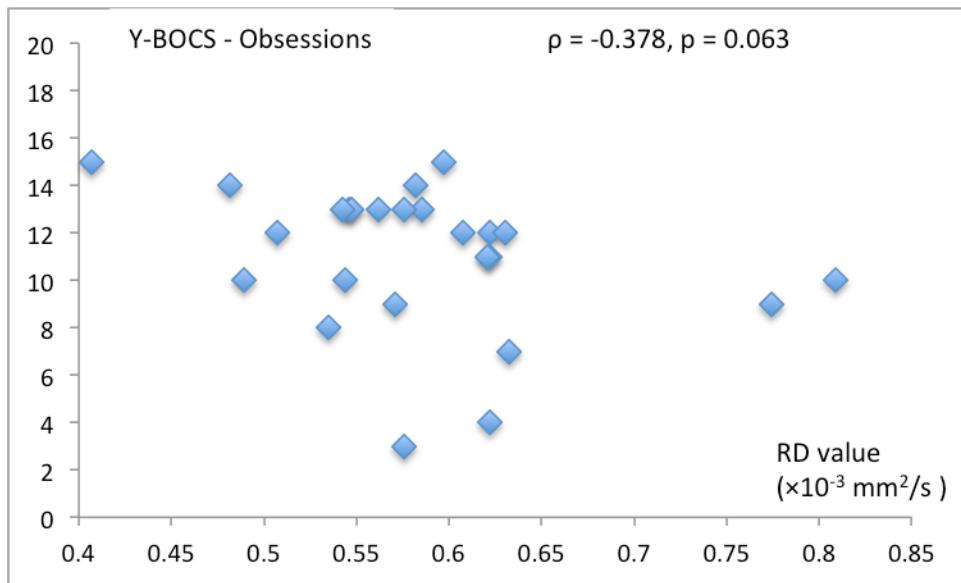
(B)



(C)



(D)



(E)

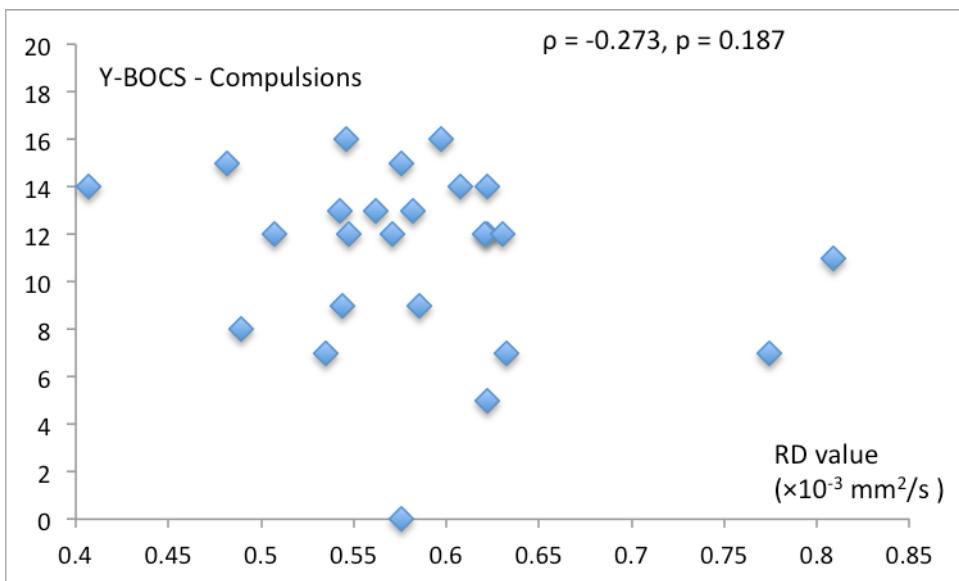
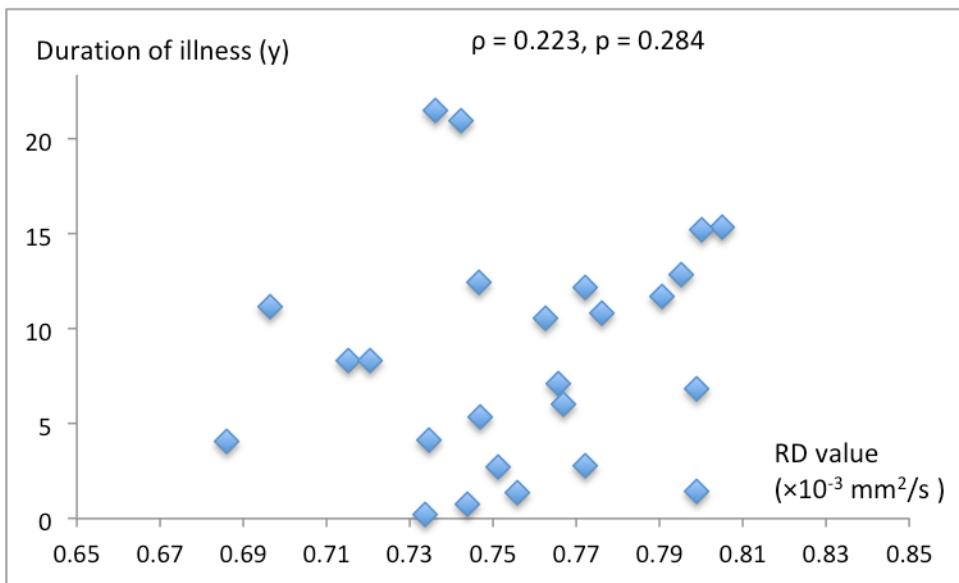


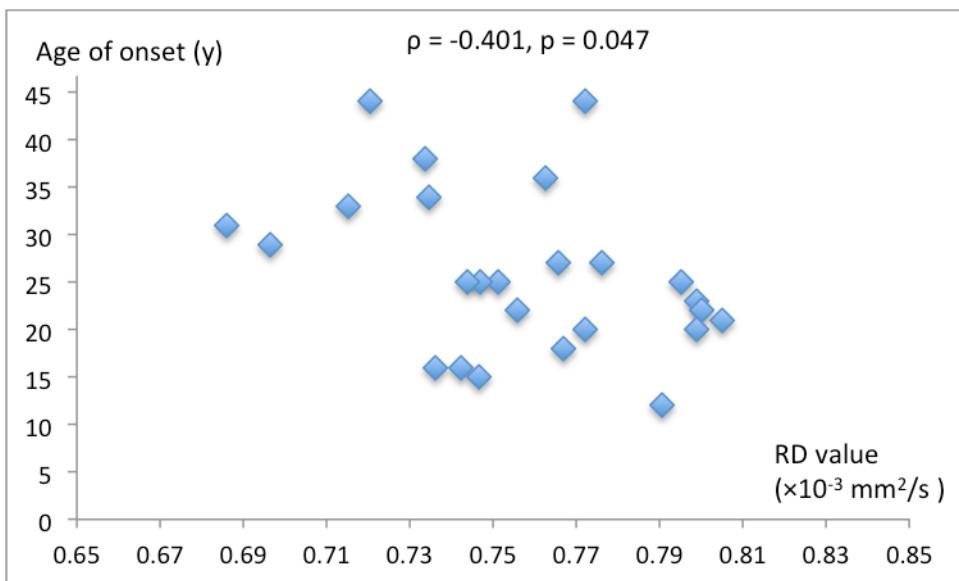
Figure S1 Scatter plot showing Spearman's rank correlation coefficients between the RD values in the forceps major and (A) duration of illness, (B) age of onset, (C) Y-BOCS - Total, (D) Y-BOCS - Obsessions and (E) Y-BOCS – Compulsions.

Abbreviations: RD, radial diffusivity; Y-BOCS, Yale-Brown Obsessive Compulsive Scale.

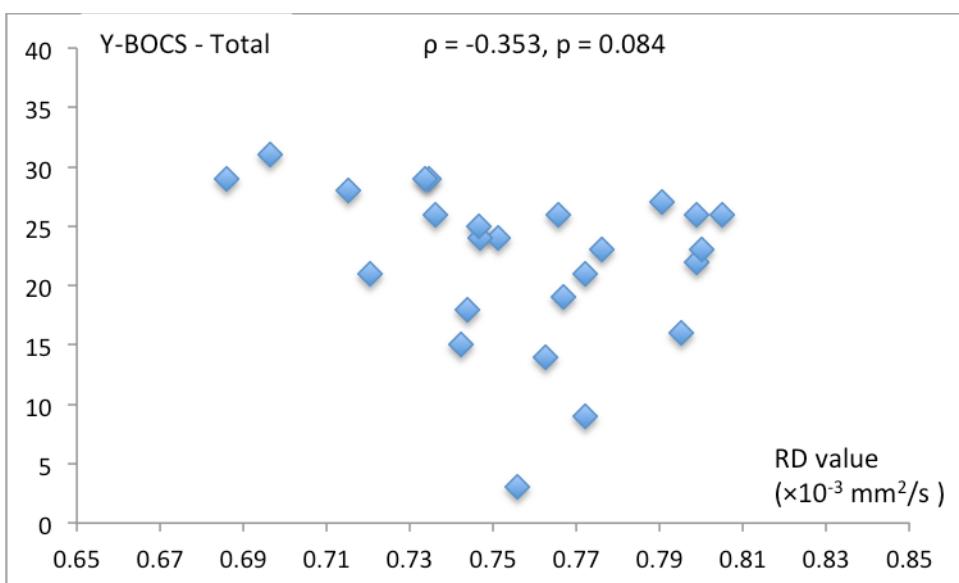
(A)



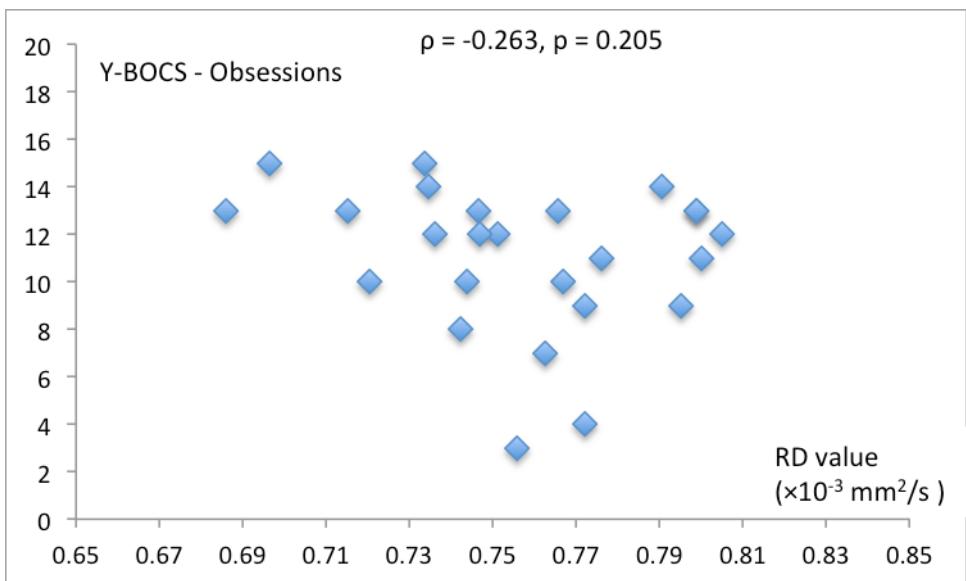
(B)



(C)



(D)



(E)

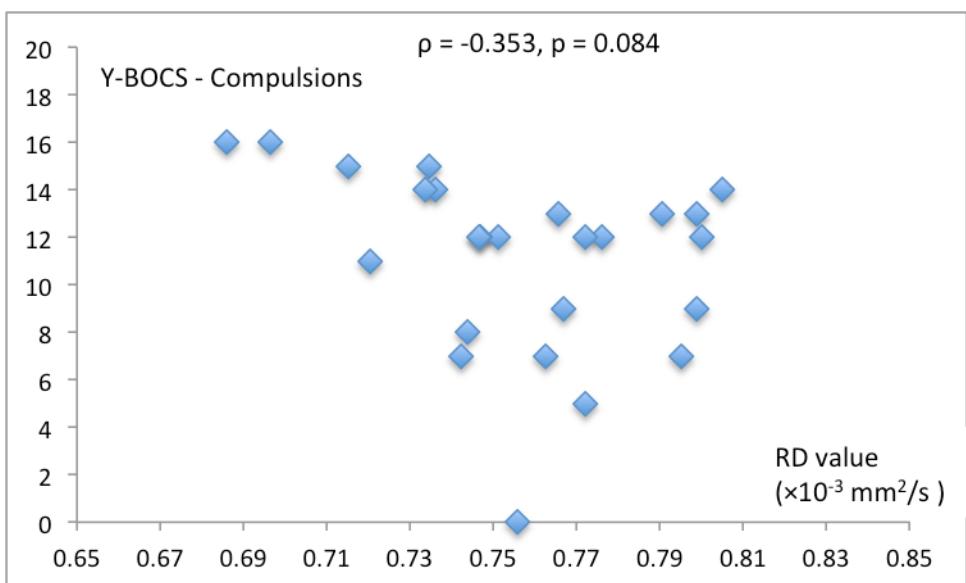


Figure S2 Scatter plot showing Spearman correlation coefficients for RD values in the right cingulum - angular (infracallosal) bundle and (A) duration of illness, (B) age of onset, (C) Y-BOCS - Total, (D) Y-BOCS - Obsessions and (E) Y-BOCS – Compulsions.

Abbreviations: RD, radial diffusivity; Y-BOCS, Yale-Brown Obsessive Compulsive Scale.