

**Table DS1** Diffusion imaging studies investigating white matter integrity in patients with schizophrenia and normal controls

Study	Schizophrenia group		Control group		Length of illness, years	Findings in schizophrenia
	Sample size <i>n</i>	Age, years Mean (s.d.)	Sample size <i>n</i>	Age, years Mean (s.d.)		
Buchsbaum <i>et al</i> (1998)	5 (3M, 2F)	34 (7.3)	6 (3M, 3F)	45.5 (13.3)	25.6	↓ FA in right frontal white matter, internal capsule and anterior limb of external capsule
Lim <i>et al</i> (1999)	10M	47.7 (7.8)	10M	41.9 (8.3)	NA	↓ FA in bilateral prefrontal and right parieto-occipital white matter No difference for FA in left parieto-occipital white matter, bilateral temporal white matter and total brain grey matter
Agartz <i>et al</i> (2001)	20 (11M, 9F)	38.4 (7.9)	24 (15M, 9F)	42.2 (6.7)	14.0 (8.4)	↓ FA in splenium of corpus callosum and adjacent occipital white matter, bilaterally ↑ ADC in total brain white and grey matter
Steel <i>et al</i> (2001)	10 (5M, 5F)	34 (14)	10 (4M, 6F)	35 (7)	15	No difference for FA in frontal and occipital white matter, bilaterally
Foong <i>et al</i> (2002)	14 (11M, 3F)	38.6	19 (12M, 7F)	34.6	13.4	No difference for ADC or FA in regional white matter
Kubicki <i>et al</i> (2002)	15M	43 (7)	15M	43 (6)	21.3	No difference for FA in fasciculus uncinatus
Ardekani <i>et al</i> (2003)	14 (11M, 3F) 7 schizoaffective disorder	30.8 (8.5)	14 (11M, 3F)	33.5 (10.8)	NA	↓ FA bilaterally in deep frontal perigenual region, medial occipital lobe, inferior parietal gyri, middle temporal gyri, parahippocampal gyri, corpus callosum and in left superior temporal gyrus
Burns <i>et al</i> (2003)	30 (15M, 15F)	36.4 (11.2)	30 (15M, 15F)	35.7 (12.4)	NA	↓ FA in left but not right arcuate fasciculus. No difference for FA in uncinate fasciculus and anterior cingulum, bilaterally
Kubicki <i>et al</i> (2003)	16M	43 (6.8)	18M	43 (5.9)	22	↓ FA bilaterally in cingulate fasciculus
Minami <i>et al</i> (2003)	12 (5M, 7F)	30.8 (6.0)	11 (7M, 4F)	29.0 (4.0)	3.3	↓ FA in frontal, temporal, parietal and occipital white matter bilaterally
Sun <i>et al</i> (2003)	30 (18M, 12F)	27.4 (8.2)	19 (12M, 7F)	25.7 (8.2)	23.3 (8.0)	↓ FA in anterior cingulum No difference for FA in frontal, temporal, parietal and occipital white matter, in anterior and posterior limbs of internal capsule, and in genu and splenium of corpus callosum
Kumra <i>et al</i> (2004)	12 (9M, 3F)	16.5 (1.8)	9 (6M, 3F)	15.5 (1.7)	3.4 (4.0)	↓ FA in bilateral frontal and right occipital white matter
Park <i>et al</i> (2004)	23M	43 (7.2)	32M	44 (6.2)	NA	Lack of normal asymmetry for FA in anterior limb of the internal capsule, uncinate fasciculus and superior cerebellar peduncle
Wang <i>et al</i> (2004)	21M	29.24 (5.58)	20M	26.00 (5.99)	NA	↓ FA bilaterally in anterior cingulum
Ardekani <i>et al</i> (2005)	15M	33.7 (8.4)	15 (8M, 7F)	28.3 (9.7)	13.5 (7.3) (range 2–24)	↑ ADC, bilaterally, in insula, hippocampus, superior, middle and inferior temporal gyri, and occipital regions
Kitamura <i>et al</i> (2005)	6M	31 (5.4)	6M	32 (4.3)	10.5 (6.25)	↓ FA bilaterally in frontal lobes
Kumra <i>et al</i> (2005)	26 (14M, 12F) 8 schizoaffective disorder	15.2 (2.2)	34 (20M, 14F)	15.4 (2.8)	2.0 (range 0.1–7)	↓ FA in left anterior cingulate region
Kubicki <i>et al</i> (2005a)	21 M	NA	26 M	NA	NA	↓ FA in fornix, corpus callosum, right inferior occipito-frontal fasciculus and left arcuate fasciculus; bilaterally in cingulum bundle, superior occipito-frontal fasciculus and internal capsule

(Continued)

**Table I** (Continued)

Study	Schizophrenia group		Control group		Length of illness, years	Findings in schizophrenia
	Sample size <i>n</i>	Age, years Mean (s.d.)	Sample size <i>n</i>	Age, years Mean (s.d.)		
Szeszko <i>et al</i> (2005)	10 (6M, 4F) 5 schizoaffective disorder	26.9 (4.6)	13 (7M, 6F)	28.9 (6.0)	First episode	↓ FA in left internal capsule, left middle frontal gyrus and posterior superior temporal gyrus
Hao <i>et al</i> (2006)	21 (12M, 9F)	23.7 (5.5)	21 (10M, 11F)	25.1 (4.6)	Range 0.5–2.0 10.3 (6.2) months	↓ FA in cerebral peduncle, frontal regions, inferior temporal gyrus, medial parietal lobes, hippocampal gyrus, insula, right anterior cingulum bundle and right corona radiata
Jones <i>et al</i> (2006)	14M	22–53 median 34 (9.3)	14M	19–57 median 34 (9.8)	1–25 median 8	↓ FA in left SLF, particularly in the youngest patients  No difference for FA in right SLF, cingulum bundle, uncinate and inferior fronto-occipital fasciculi
Shin <i>et al</i> (2006)	19 (11M, 8F)	27.84 (4.78)	21 (11M, 10F)	27.09 (5.51)	7.53 (4.39)	↑ ADC in white matter near left inferior and middle frontal gyri, right parahippocampal gyrus, bilateral insular and middle temporal gyri

ADC, apparent diffusion coefficient; F, female; FA, fractional anisotropy; M, male; NA, not available; SLF, superior longitudinal fasciculus.

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