

Computerized cognitive remediation therapy effects on resting state brain activity and cognition in schizophrenia

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Running title: Cognitive remediation therapy effects on brain activity and cognition in schizophrenia

TableS1. Comparison of PANSS, cognitive function and skill performance at baseline and post-treatment in CCRT and TAU groups

	CCRT (n=12)		TAU (n=11)		effect of group		effect of time		group*time interaction		Cohen's d	
	mean	std	mean	std	F	P	F	P	F	P		
Symptoms												
PANSS												
Baseline	65.73	10.44	62.30	8.12	2.32	0.15	0.72	0.41	0.35	0.56	-0.24	
Follow-up	62.00	10.46	60.40	5.82								
PANSS positive												
Baseline	13.45	4.46	10.90	3.00	7.48	0.01	0.38	0.55	0.36	0.55	0.26	
Follow-up	13.27	4.00	9.80	1.87								
PANSS negative												
Baseline	20.18	4.71	20.00	3.94	0.03	0.87	1.98	0.18	0.20	0.66	-0.24	
Follow-up	18.36	4.11	18.90	2.73								
PANSS general psychosis												
Baseline	28.45	3.93	27.70	3.09	0.62	0.44	1.98	0.18	1.29	0.27	-0.42	
Follow-up	26.73	4.54	27.60	4.22								
Cognitive function												
Trail making test												
Baseline	41.63	10.89	37.48	13.98	1.96	0.18	0.09	0.77	8.14	0.01	0.97	
Follow-up	45.82	8.10	35.80	10.85								
Spatial span test												
Baseline	47.78	9.72	42.11	4.55	2.46	0.13	2.30	0.15	0.22	0.65	0.16	
Follow-up	51.67	10.24	44.68	12.15								
Digit sequencing test												
Baseline	48.73	12.90	42.70	7.74	1.99	0.18	0.02	0.89	0.002	0.96	-0.17	
Follow-up	46.28	13.25	41.94	11.08								
Mazes test												
Baseline	39.71	16.30	36.19	11.13	1.29	0.27	0.63	0.44	4.11	0.06	0.81	
Follow-up	50.57	14.50	39.65	9.78								

Note: PANSS = Positive and Negative Syndrome Scale

Effect of treatment across age, age of illness onset, duration of illness

In this study, we performed correlation analysis to examine relationship between clinical symptoms, cognitive function and brain activity changes with age, age of illness onset, duration of illness. Firstly, we used non-parametric test and found that all the above variables of our data (including clinical symptoms change, cognitive function and brain activity changes, age, age of illness onset, duration of illness) had normal distribution. Then Pearson correlation analysis was performed to explore relationship. The results showed that brain changes in Brainstem had significant negative correlation with onset age ($r=-0.471$, $P=0.042$). We have also added this in the limitation.