

Table S1. Baseline, post-test and follow up characteristics of each trajectory in the MCT group.

	Metacognitive Training Group													
	Self-reflectivity							Self-certainty						
	High SR (N=20)		Improving SR (N=8)		U/ χ^2	p	RBC	Initial decline (N=22)		Responsive SC (N=6)		U/ χ^2	p	RBC
	Mean/%	SD	Mean/%	SD				Mean/%	SD	Mean/%	SD			
Baseline														
Age	25.850	7.916	25.500	7.838	78.50	0.959	0.01875	24.455	6.262	30.500	11.185	46.00	0.273	0.30303
Number of hospital admissions	0.750	0.786	2.000	1.826	38.50	0.063	0.45000	0.952	1.024	1.500	1.871	54.50	0.613	0.13492
Education					2.829	0.726						9.934	0.077	
<i>Incomplete primary education</i>	15		37.5					22.7		16.7				
<i>Complete primary education</i>	35		12.5					31.8		16.7				
<i>Incomplete secondary education</i>	10		12.5					4.5		33.3				
<i>Complete secondary education</i>	25		25					31.8						
<i>Incomplete superior education</i>	5									16.7				
<i>Complete superior education</i>	10		12.5					9.1		16.7				
Diagnosis					4.035	0.544						2.077	0.838	
<i>Schizophrenia</i>	40		62.5					45.5		50				
<i>Non-specified psychotic disorder</i>	25		1					18.2		33.3				
<i>Schizoaffective disorder</i>	5							4.5		16.7				
<i>Delusional disorder</i>	5		1					9.1						
<i>Brief psychotic episode</i>	15							9.1						
<i>Schizophreniform disorder</i>	10							9.1						
PANSS														
<i>Positive symptoms</i>	12.400	4.512	11.875	1.553	77.50	0.919	0.03125	11.545	3.247	14.833	5.154	38.00	0.122	0.42424
<i>Negative symptoms</i>	12.050	5.898	20.750	6.453	20.00	0.002	0.75000	13.636	6.075	17.833	10.265	55.50	0.574	0.15909
<i>General symptoms</i>	24.600	6.613	34.250	6.274	22.00	0.003	0.72500	25.955	6.979	32.500	9.094	36.50	0.104	0.44697
<i>Total</i>	49.050	14.255	66.875	11.910	25.50	0.006	0.68125	51.136	13.361	65.167	19.964	37.00	0.110	0.43939
GAF	71.500	10.390	54.375	12.374	23.00	0.004	0.71250	68.409	12.565	60.000	15.166	42.50	0.193	0.35606
SUMD global score	5.600	2.542	6.375	3.159	68.50	0.561	0.14375	5.818	2.648	5.833	3.125	66.00	1.000	0.00000

Beads Task															
	85-15	3.842	4.400	3.125	2.232	75.50	1.000	0.00658	3.857	4.269	2.833	1.835	60.00	0.881	0.04762
	60-40	6.842	4.180	5.500	3.586	66.00	0.611	0.13158	6.571	4.142	6.000	3.742	61.00	0.930	0.03175
	Affective	6.053	3.937	7.125	5.890	69.00	0.728	0.09211	6.571	4.760	5.667	3.777	60.00	0.883	0.04762
IPSAQ															
	Externalizing bias	0.450	3.546	-0.714	3.251	57.50	0.504	0.17857	-0.238	3.548	1.500	2.950	44.00	0.277	0.30159
	Personalizing bias	1.351	0.693	0.987	0.809	54.00	0.391	0.22857	1.224	0.801	1.373	0.398	58.00	0.793	0.07937
Hinting task		4.850	0.745	4.375	1.506	68.50	0.532	0.14375	4.682	0.995	4.833	1.169	59.50	0.708	0.09848
Rosenberg self-esteem		29.700	4.932	22.250	6.902	29.50	0.011	0.63125	26.636	6.807	31.000	3.162	38.50	0.130	0.41667
Faces Test		17.700	2.003	17.625	1.408	73.50	0.757	0.08125	17.955	1.676	16.667	2.160	42.50	0.191	0.35606
Estimated premorbid IQ		101.000	15.778	94.167	10.685	44.50	0.354	0.25833	100.250	15.515	96.667	13.292	50.50	0.578	0.15833
Post-test															
PANSS															
	Positive symptoms	10.842	3.594	12.000	1.414	42.00	0.352	0.26316	10.158	2.544	14.167	3.430	18.50	0.015	0.67544
	Negative symptoms	11.737	5.425	21.500	7.556	12.00	0.004	0.78947	13.211	6.503	16.833	9.261	46.00	0.501	0.19298
	General symptoms	24.263	6.244	32.667	6.346	21.50	0.026	0.62281	25.053	6.442	30.167	8.472	36.50	0.202	0.35965
	Total	46.842	13.297	66.167	11.161	13.50	0.006	0.76316	48.421	13.285	61.167	17.837	33.00	0.134	0.42105
GAF		69.895	8.627	57.500	12.942	20.50	0.021	0.64035	67.263	11.780	65.833	8.612	49.50	0.653	0.13158
SUMD global score		4.667	2.301	6.667	1.966	24.00	0.040	0.55556	5.167	2.307	5.167	2.714	66.00	1.000	0.00000
Beads Task															
	85-15	5.474	5.491	4.200	1.095	42.50	0.742	0.10526	5.611	5.564	4.000	1.789	60.00	0.881	0.04762
	60-40	8.684	5.154	9.000	2.646	42.50	0.747	0.10526	9.278	4.824	7.167	4.262	61.00	0.930	0.03175
	Affective	8.158	4.610	7.200	3.114	47.00	1.000	0.01053	8.111	4.310	7.500	4.637	60.00	0.883	0.04762
IPSAQ															
	Externalizing bias	0.158	2.410	1.400	1.817	31.50	0.265	0.33684	0.778	2.315	-0.667	2.160	44.00	0.277	0.30159
	Personalizing bias	1.254	0.460	0.958	0.529	34.00	0.354	0.28421	1.178	0.496	1.236	0.466	58.00	0.793	0.07937
Hinting task		5.158	1.015	4.500	2.258	50.00	0.657	0.12281	4.895	1.449	5.333	1.211	59.50	0.708	0.09848
Rosenberg self-esteem		29.368	4.512	23.167	8.565	27.00	0.059	0.52632	26.895	6.616	31.000	2.966	38.50	0.130	0.41667
Faces Test		17.211	2.070	17.667	1.506	54.50	0.897	0.04386	17.421	1.774	17.000	2.530	42.50	0.191	0.35606

6 month FU															
PANSS															
	<i>Positive symptoms</i>	10.333	3.694	11.333	2.422	37.00	0.263	0.31481	9.556	2.455	13.667	4.179	20.50	0.025	0.62037
	<i>Negative symptoms</i>	11.278	5.399	19.000	9.143	22.00	0.034	0.59259	12.389	6.705	15.667	8.595	43.00	0.479	0.20370
	<i>General symptoms</i>	21.722	5.027	32.400	7.987	10.00	0.010	0.77778	22.294	6.008	29.000	8.414	23.50	0.058	0.53922
	<i>Total</i>	43.333	12.705	65.000	17.507	12.50	0.017	0.72222	44.412	14.444	58.333	17.941	24.50	0.068	0.51961
GAF		73.444	9.482	65.167	16.678	33.50	0.178	0.37963	71.278	12.352	71.667	11.255	52.50	0.946	0.02778
SUMD global score		4.444	1.756	7.500	3.017	20.00	0.020	0.62963	5.167	2.595	5.333	2.251	49.00	0.756	0.09259
Beads Task															
	<i>85-15</i>	4.778	1.768	3.167	2.041	30.50	0.119	0.43519	4.222	2.130	4.833	1.169	40.50	0.378	0.25000
	<i>60-40</i>	8.222	5.242	6.667	4.082	43.50	0.503	0.19444	7.167	4.541	9.833	5.981	39.00	0.331	0.27778
	<i>Affective</i>	7.667	3.646	6.833	3.488	49.00	0.761	0.09259	7.444	3.944	7.500	2.258	50.50	0.839	0.06481
IPSAQ															
	<i>Externalizing bias</i>	1.944	3.404	0.800	3.114	37.50	0.598	0.16667	1.941	3.526	1.000	2.757	42.50	0.572	0.16667
	<i>Personalizing bias</i>	1.275	0.317	1.097	0.403	7.00	0.357	0.41667	1.369	0.215	0.978	0.379	6.00	0.155	0.57143
Hinting task		5.111	1.023	4.667	1.366	42.00	0.413	0.22222	5.000	1.085	5.000	1.265	51.50	0.887	0.04630
Rosenberg self-esteem		31.333	3.926	25.833	8.565	31.50	0.141	0.41667	29.722	6.304	30.667	4.131	53.00	0.973	0.01852
Faces Test		17.611	1.787	18.333	1.211	41.50	0.409	0.23148	17.889	1.023	17.500	3.017	50.00	0.810	0.07407

Table S2. Baseline, post-test, and follow-up characteristics of each trajectory in the psychoeducation group.

	Psychoeducation													
	Self-reflectivity							Self-certainty						
	Low SR (N=17)		Worsening SR (N=16)		U/ χ^2	p	RBC	Low and stable SC (N=23)		Worsening SC (N=11)		U/ χ^2	p	RBC
	Mean/%	SD	Mean/%	SD				Mean/%	SD	Mean/%	SD			
Baseline														
Age	29.235	6.300	28.188	7.884	123.00	0.652	0.09559	29.304	6.131	27.818	8.623	110.50	0.568	0.12648
Number of hospital admissions	1.882	1.409	1.313	1.138	107.50	0.299	0.20956	1.478	1.310	1.818	1.250	106.00	0.447	0.16206
Education					2.102	0.835						11.98	0.035	
<i>Incomplete primary education</i>	11.8		12.5					8.7		18.2				
<i>Complete primary education</i>	11.8		18.8					13		27.3				
<i>Incomplete secondary education</i>	29.4		12.5					8.7		45.5				
<i>Complete secondary education</i>	23.5		31.3					34.8		9.1				
<i>Incomplete superior education</i>	11.8		18.8					21.7						
<i>Complete superior education</i>	11.8		6.3					13						
Diagnosis					9.86	0.04						3.9	0.42	
<i>Schizophrenia</i>	76.5		31.3					52.2		63.3				
<i>Non-specified psychotic disorder</i>			25					13		9.1				
<i>Schizoaffective disorder</i>	5.9		18.8					13		9.1				
<i>Delusional disorder</i>														
<i>Brief psychotic episode</i>	5.9		18.8					17.4						
<i>Schizophreniform disorder</i>	11.8		6.3					4.3		18.2				
PANSS														
<i>Positive symptoms</i>	13.529	4.571	11.813	4.277	106.00	0.285	0.22059	11.478	4.491	14.727	3.771	70.50	0.040	0.44269
<i>Negative symptoms</i>	16.235	4.790	13.750	4.655	97.00	0.164	0.28676	14.478	4.571	16.545	5.165	100.50	0.346	0.20553
<i>General symptoms</i>	28.000	5.500	26.563	6.603	113.00	0.416	0.16912	26.304	6.018	29.273	5.424	93.00	0.223	0.26482
<i>Total</i>	57.765	11.306	52.125	12.971	97.00	0.165	0.28676	52.261	12.531	60.545	9.353	78.50	0.080	0.37945
GAF	55.588	11.974	59.375	11.955	125.00	0.702	0.08088	59.565	12.605	53.182	8.739	78.00	0.074	0.38340
SUMD global score	6.706	3.567	5.500	3.759	107.50	0.283	0.20956	4.391	2.589	9.455	3.142	31.50	<.001	0.75099

Beads Task															
	<i>85-15</i>	6.294	5.312	4.500	2.828	117.50	0.511	0.13603	5.696	4.072	4.636	4.802	88.00	0.155	0.30435
	<i>60-40</i>	9.647	5.338	7.375	5.045	106.00	0.286	0.22059	9.913	5.080	5.636	4.202	57.50	0.011	0.54545
	<i>Affective</i>	8.706	4.858	6.750	3.152	116.50	0.490	0.14338	8.391	3.615	6.545	4.967	82.50	0.106	0.34783
IPSAQ															
	<i>Externalizing bias</i>	1.176	4.290	2.000	3.559	111.00	0.374	0.18382	2.087	4.078	0.455	3.236	111.50	0.591	0.11858
	<i>Personalizing bias</i>	1.365	0.533	1.084	0.460	100.00	0.201	0.26471	1.219	0.556	1.218	0.411	125.50	0.985	0.00791
Hinting task		4.647	1.057	4.688	0.946	132.50	0.906	0.02574	4.783	0.951	4.455	1.036	106.50	0.427	0.15810
Rosenberg self-esteem		28.000	4.690	17.647	1.455	125.50	0.718	0.07721	27.391	4.283	27.364	6.592	125.50	0.985	0.00791
Faces Test		17.647	1.455	17.188	1.328	118.50	0.529	0.12868	17.870	1.254	16.636	1.362	64.00	0.019	0.49407
Estimated premorbid IQ		96.563	10.912	97.667	16.676	112.50	0.779	0.06250	98.409	14.090	93.000	12.737	86.00	0.333	0.21818
Post-test															
PANSS															
	<i>Positive symptoms</i>	11.462	3.230	9.667	3.172	49.00	0.118	0.37179	9.556	2.640	13.000	3.207	27.50	0.014	0.61806
	<i>Negative symptoms</i>	14.769	4.304	13.385	4.664	67.00	0.381	0.20710	13.000	4.346	16.750	3.327	34.50	0.029	0.54605
	<i>General symptoms</i>	24.385	4.735	24.385	3.686	81.50	0.898	0.03550	23.737	3.813	26.375	4.534	50.50	0.182	0.33553
	<i>Total</i>	50.615	10.540	46.583	7.821	62.00	0.398	0.20513	45.667	8.196	56.125	7.434	24.00	0.008	0.66667
GAF		61.846	10.900	62.846	11.149	80.00	0.836	0.05325	64.789	10.753	56.250	7.906	37.50	0.042	0.50658
SUMD global score		5.308	3.521	4.077	2.660	65.50	0.224	0.22485	3.421	1.427	7.500	4.071	33.00	0.003	0.56579
Beads Task															
	<i>85-15</i>	4.000	2.677	5.846	5.336	73.00	0.563	0.13609	5.789	4.590	2.625	1.598	34.00	0.023	0.55263
	<i>60-40</i>	8.462	4.502	8.385	2.873	81.50	0.897	0.03550	9.737	3.034	5.625	3.543	32.50	0.021	0.57237
	<i>Affective</i>	7.923	4.734	7.385	2.468	84.00	1.000	0.00592	8.684	3.146	5.375	3.889	38.50	0.043	0.49342
IPSAQ															
	<i>Externalizing bias</i>	0.231	3.609	1.692	5.154	73.00	0.571	0.13609	0.895	4.748	1.750	3.845	63.50	0.522	0.16447
	<i>Personalizing bias</i>	1.375	0.459	1.092	0.468	47.00	0.057	0.44379	1.232	0.567	1.137	0.255	65.50	0.595	0.13816
Hinting task		5.077	1.256	4.538	1.613	70.00	0.447	0.17160	5.053	1.471	4.375	1.302	45.00	0.085	0.40789
Rosenberg self-esteem		29.231	3.516	30.462	5.125	75.50	0.661	0.10651	29.737	4.629	29.250	4.334	74.50	0.957	0.01974
Faces Test		17.462	1.450	18.154	1.214	61.50	0.233	0.27219	18.000	1.291	17.500	1.512	62.00	0.457	0.18421

6 month FU															
PANSS															
	<i>Positive symptoms</i>	11.385	3.686	9.750	3.415	51.00	0.144	0.34615	9.556	3.072	13.375	3.335	25.00	0.009	0.65278
	<i>Negative symptoms</i>	13.923	4.804	12.167	4.152	57.50	0.274	0.26282	11.667	3.614	16.125	4.704	30.00	0.020	0.58333
	<i>General symptoms</i>	24.154	4.079	22.917	3.204	58.00	0.286	0.25641	22.647	3.622	25.500	3.117	38.50	0.089	0.43382
	<i>Total</i>	49.462	10.170	44.833	7.918	55.50	0.231	0.28846	43.588	8.389	55.000	5.732	19.50	0.005	0.71324
GAF		63.846	12.825	65.000	12.060	73.00	0.805	0.06410	66.667	12.166	58.750	10.264	44.00	0.124	0.38889
SUMD global score		5.385	3.618	4.250	2.989	67.50	0.511	0.13462	3.500	1.689	7.625	4.207	30.50	0.005	0.57639
Beads Task															
	<i>85-15</i>	4.769	4.003	4.750	3.864	68.50	0.619	0.12179	4.778	3.318	4.625	4.926	50.50	0.236	0.29861
	<i>60-40</i>	7.692	4.461	8.083	3.175	63.00	0.426	0.19231	8.500	2.854	6.625	5.263	47.50	0.179	0.34028
	<i>Affective</i>	7.692	4.956	7.833	2.980	68.50	0.622	0.12179	8.278	2.718	6.750	6.042	44.50	0.131	0.38194
IPSAQ															
	<i>Externalizing bias</i>	1.231	3.539	2.250	3.957	68.00	0.604	0.12821	2.722	3.528	0.000	3.665	43.00	0.112	0.40278
	<i>Personalizing bias</i>	1.663	1.660	0.956	0.767	10.00	0.429	0.33333	1.007	0.545	2.845	3.048	8.00	0.747	0.20000
Hinting task		5.000	0.913	4.583	0.996	59.00	0.287	0.24359	5.056	0.802	4.250	1.035	38.50	0.051	0.46528
Rosenberg self-esteem		28.615	5.853	29.167	5.424	71.50	0.743	0.08333	29.667	5.541	26.125	5.410	49.00	0.210	0.31944
Faces Test		17.846	1.725	17.750	1.288	74.50	0.868	0.04487	18.000	1.328	17.500	1.852	59.00	0.479	0.18056