

**Table S1.** Sociodemographic, clinical, neuropsychological and neuroimaging characteristics of ADHD and TD samples.

	ADHD (N=24)	TD (N=25)	Statistic value	p
<b>Sociodemographic characteristics</b>				
Female:Males	2:22	4:21	0.0 <sup>a</sup>	1
Age (m ± SD)	10.91 ± 2.8	10.43 ± 2.9	0.6 <sup>b</sup>	0.565
SES (m ± SD)	47.1 ± 12.6	53.5 ± 19.7	233.5 <sup>c</sup>	0.4804
WISC-IV FSIQ (m ± SD)	99.53 ± 14.1	106.1 ± 17.4	238.5 <sup>c</sup>	0.365
<b>Clinical characteristics: CPRS-R</b>				
Oppositional (m ± SD)	<b>72.87 ± 16.5</b>	<b>52.13 ± 13.6</b>	470.5 <sup>c</sup>	<b>&lt;0.001</b>
Cognitive problems/Inattention (m ± SD)	<b>81.08 ± 11.6</b>	<b>47.00 ± 8.7</b>	566.5 <sup>c</sup>	<b>&lt;0.001</b>
Hyperactivity (m ± SD)	<b>77.33 ± 11.5</b>	<b>48.38 ± 13.1</b>	535 <sup>c</sup>	<b>&lt;0.001</b>
Anxious/Shy (m ± SD)	52.25 ± 11.1	48.33 ± 11.0	352.5 <sup>c</sup>	0.185
Perfectionism (m ± SD)	<b>53.66 ± 11.7</b>	<b>43.29 ± 8.6</b>	455 <sup>c</sup>	<b>&lt;0.001</b>
Social Problems (m ± SD)	<b>71.29 ± 19.9</b>	<b>53.08 ± 11.5</b>	443.5 <sup>c</sup>	<b>&lt;0.001</b>
Psychosomatic Problems (m ± SD)	<b>53.04 ± 13.8</b>	<b>46.17 ± 5.9</b>	386.5 <sup>c</sup>	<b>0.039</b>
ADHD index (m ± SD)	<b>81.54± 9.6</b>	<b>47.92 ± 9.7</b>	566.5 <sup>c</sup>	<b>&lt;0.001</b>
<b>Neuropsychological characteristics</b>				
Nepsy - Visual Attention	9.30 ± 3.5	10.04 ± 3.2	252 <sup>c</sup>	0.614
ANT (ms) (mean ± SD)				
<i>Baseline speed</i>				
RT	395.29 ± 136.4	362.54 ± 113.8	227.0 <sup>c</sup>	0.556
SD of RT	225.53 ± 205.8	158.13 ± 119.1	242.5 <sup>c</sup>	0.315
<i>Focused Attention 4 Letters</i>				
RT correct responses	1304.895 ± 491.1	1071.435 ± 371.9	276.5 <sup>c</sup>	0.146
SD of correct responses RT	<b>558 ± 304.2</b>	<b>326.5 ± 176.4</b>	<b>324 <sup>c</sup></b>	<b>0.008</b>
<i>Visual set-shifting</i>				
RT inhibition	270.81 ± 292.6	272.38 ± 268.4	192.0 <sup>c</sup>	1

RT flexibility	$453.06 \pm 492.9$	$506.13 \pm 419.2$	171.0 <sup>c</sup>	0.571
<i>Sustained attention dots</i>				
Time x Series	$17.2 \pm 5.9$	$15.4 \pm 5.4$	199 <sup>c</sup>	0.408
SD	$3.8 \pm 1.5$	$2.9 \pm 1.4$	235 <sup>c</sup>	0.053
<b>Neurophysiology: fNIRS</b>				
Prefrontal right (m ± SD)	<b><math>1.43 \pm 3.6</math></b>	<b><math>3.50 \pm 5.4</math></b>	104.0 <sup>c</sup>	<b>0.001</b>
Frontal right (m ± SD)	<b><math>0.78 \pm 3.7</math></b>	<b><math>4.46 \pm 4.1</math></b>	100.0 <sup>c</sup>	<b>0.014</b>
Prefrontal left (m ± SD)	$0.95 \pm 3.6$	$1.83 \pm 4.8$	176.0 <sup>c</sup>	0.360
Frontal left (m ± SD)	$1.08 \pm 2.4$	$0.95 \pm 3.1$	172.0 <sup>c</sup>	0.831

Notes: ADHD= attention deficit hyperactivity disorder patients group; ANT= Amsterdam Neuropsychological Task; CPRS-R= Conners Parent Rating Scale- Revised; fNIRS= functional near-infrared spectroscopy; m = mean; ms= milliseconds; NEPSY= A Developmental NEuroPSYchological Assessment; TD = Typically developing peers group; SD = standard deviation; RT= Reaction time; SES= Socioeconomic status; WISC-IV= Wechsler Intelligence Scale for Children-IV Full Scale Intelligence Quotient. a = Pearson's Chi-squared test; b = Independent two sample T test; c = Wilcoxon rank sum test.