

**Cognitive stress regulation in schizophrenia patients and healthy individuals: brain and behavior.**

**Supplementary material Table S1. Whole brain analysis.**

**Table S1.**

Contrast	Cluster size	Macronanatomical location	Cytoarchitectonical activation	X	Y	Z	t value
Healthy controls Non-regulation Control > stress	112	R Precuneus		6	-48	22	STAT = 3.99
Healthy controls Non-regulation Stress > control	119	N/A R Olfactory cortex	Area 33	14 4	26 20	-4 0	STAT = 4.87 STAT = 4.43
Healthy controls Regulation Control > stress		non significant					
Healthy controls Regulation Stress > control	180	L Middle Frontal Gyrus L Precentral Gyrus N/A N/A L Precentral Gyrus		-28 -34 -20 -14 -36	-12 -8 -14 -12 -14	56 60 58 58 60	STAT = 4.03 STAT = 3.78 STAT = 3.66 STAT = 3.65 STAT = 3.53

<b>Healthy controls Non-regulation &gt; regulation</b>		non significant		
<b>Healthy controls Regulation &gt; non- regulation</b>	1622	L Paracentral Lobule R Posterior-Medial Frontal R Paracentral Lobule      Area 4a L MCC L Superior Medial Gyrus N/A N/A L MCC L MCC L MCC L MCC	-10   -32   56 12   -30   54 8   -32   68 -12   0   46 -10   24   46 -12   20   44 -14   8   48 -12   -22   48 -10   -14   56 12   -16   50 6   -22   48	STAT = 6.08 STAT = 5.60 STAT = 4.94 STAT = 4.91 STAT = 4.84 STAT = 4.74 STAT = 4.34 STAT = 4.24 STAT = 4.19 STAT = 4.10 STAT = 3.66
	621	N/A R Rolandic Operculum N/A N/A N/A N/A R IFG (p. Triangularis) R Caudate Nucleus R IFG (p. Triangularis) R IFG (p. Triangularis)	26   6   30 46   -18   26 32   -36   10 24   -12   28 34   -14   26 22   -8   24 46   16   30 22   14   18 32   16   32 52   20   32	STAT = 4.55 STAT = 4.46 STAT = 4.42 STAT = 4.35 STAT = 4.21 STAT = 4.18 STAT = 4.10 STAT = 4.08 STAT = 3.94 STAT = 3.93

Kogler et al.; JCM; Supplementary material. Table S1.

	N/A	22 -18 28	STAT = 3.90
554	N/A	-20 8 20	STAT = 4.91
	N/A	-20 -22 26	STAT = 4.55
	N/A Thal: Parietal	-28 -32 8	STAT = 4.38
	N/A	-20 -2 24	STAT = 4.34
	N/A	-28 -42 18	STAT = 4.33
	N/A	-30 -42 14	STAT = 4.20
	N/A Thal: Parietal	-24 -30 18	STAT = 3.80
	N/A	-22 16 28	STAT = 3.77
	L Hippocampus	-30 -26 -4	STAT = 3.50
	N/A	-28 -4 26	STAT = 3.45
	L Hippocampus	-32 -32 0	STAT = 3.32
296	L IFG (p. Orbitalis)	-30 30 -2	STAT = 5.28
	L IFG (p. Orbitalis)	-22 30 -2	STAT = 4.90
	L Caudate Nucleus	-10 20 4	STAT = 4.11
	N/A	-18 40 -4	STAT = 3.49
241	L Middle Frontal Gyrus	-34 40 24	STAT = 5.11
	N/A	-28 32 20	STAT = 4.17
<b>Schizophrenia patients Non-regulation Control &gt; stress</b>	non significant		

<b>Schizophrenia patients</b> <b>Non-regulation</b> <b>Stress &gt; control</b>	non significant		
<b>S Schizophrenia patients</b> <b>Regulation</b> <b>Control &gt; stress</b>	non significant		
<b>Schizophrenia patients</b> <b>Regulation</b> <b>Stress &gt; control</b>  134	L Precentral Gyrus L Precentral Gyrus L Precentral Gyrus L Precentral Gyrus N/A	-28 -12 54 -34 -14 52 -36 -14 60 -32 -8 60 -24 -16 44	STAT = 3.78 STAT = 3.72 STAT = 3.49 STAT = 3.26 STAT = 3.19
<b>Schizophrenia patients</b> <b>Non-regulation &gt;</b> <b>regulation</b>	non significant		
<b>Schizophrenia patients</b> <b>Regulation &gt; non-</b> <b>regulation</b>  281	L Mid Orbital Gyrus R Mid Orbital Gyrus N/A	0 40 -8 10 42 -8 18 32 4	STAT = 4.38 STAT = 4.10 STAT = 3.77

Kogler et al.; JCM; Supplementary material. Table S1.

	N/A	20	38	-2	STAT = 3.67
	N/A	16	42	-2	STAT = 3.66
	R Rectal Gyrus                      Area Fo1	6	46	-14	STAT = 3.27
167	R Middle Frontal Gyrus	44	22	44	STAT = 4.37
	R Middle Frontal Gyrus	36	20	50	STAT = 4.22
	R Middle Frontal Gyrus	34	30	46	STAT = 4.01
	R Middle Frontal Gyrus	44	16	46	STAT = 3.99
	R Middle Frontal Gyrus	30	16	54	STAT = 3.81
	R Middle Frontal Gyrus	42	28	42	STAT = 3.79
	R Superior Frontal Gyrus	26	24	54	STAT = 3.48
	R Middle Frontal Gyrus	34	34	44	STAT = 3.37
157	L MCC	0	-46	40	STAT = 4.13
	L Precuneus	-4	-66	36	STAT = 4.02
	L PCC	0	-58	38	STAT = 3.69
149	L Insula Lobe	-34	-28	28	STAT = 3.96
	N/A	-28	-22	26	STAT = 3.71
	N/A	-30	-36	28	STAT = 3.55
	N/A	-38	-22	30	STAT = 3.47
	L Rolandic Operculum	-40	-20	28	STAT = 3.26
<b>Whole-brain F-test</b>					
<b>Group-by-regulation-by-condition</b>					
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	L Rolandic Operculum	Area OP1 [SII]	-46	-26	18	STAT = 8.19
	L Insula Lobe	Area OP3 [VS]	-34	-20	20	STAT = 8.14
	L Postcentral Gyrus	Area OP1 [SII]	-52	-24	20	STAT = 7.49

**Supplement Table S1.** Brain regions and activation peaks showing whole-brain analyses convergence in activation for healthy controls and schizophrenia patients (control, stress, non-regulation block, regulation block) separately.

Note. Coordinates x, y, z of local maxima refer to Montreal Neurological Institute space (MNI). k = number of voxels in cluster. An extent threshold of k=99 contiguous voxels corresponds to a corrected threshold of  $p < .05$ .

References for histological assignments: OP1, OP 3, OP 4: [33,52]; Area 1: [53]; Area PFt (IPL), Area PGa (IPL), Area PFm (IPL), Area PGp (IPL): [54]; Area Fp2 [55]; Area 45: [56].