

Table 1: Thalamocortical connectivity after administration of psychedelics

Study	N	Age	Sex	Psychedelic	Seed	iFC	ROI(s)	P-value
Carhart-Harris et al., 2013	15	32±8.9	2 F	Psilocybin	Bilateral thalamus	-	DMN	0.1
					Bilateral thalamus	↑	TPN	0.03
Tagliazucchi et al., 2016	15	32±8.9		Psilocybin	Bilateral thalamus	↑	ROIs covering sensorimotor, auditory, and visual cortices	< 0.05, FDR
	15 (of 20)	30.9±7.8	4 F	LSD	Bilateral thalamus	↑	ROIs covering sensorimotor, auditory, and visual cortices	< 0.05, FDR
Müller et al., 2017	20	32.4±10.9	10 F	LSD	Left thalamus	↑	104 out of 130 ROIs covering the whole brain	< 0.05, FDR
					Right thalamus	↑	104 out of 130 ROIs covering the whole brain	< 0.05, FDR
					Bilateral thalamus	↑	Voxels covering sensorimotor and visual cortices	< 0.05, FDR
Preller et al., 2018	24	25±3.60	5 F	LSD	Bilateral thalamus	↑	Grayordinates covering sensorimotor areas	< 0.05, FWE
Bershad et al., 2019	20	25±4	10 F	LSD microdose	Bilateral thalamus	-	Cerebral cortex	-
					Bilateral thalamus	↑	Cerebellum	<0.05, FDR

Studies investigating effects of psychedelics on thalamocortical functional connectivity with seed-based correlation analysis, using the thalamus as seed. Of note, for psilocybin, Tagliazucchi and colleagues (2016) re-analyzed the subjects from Charhart-Harris and colleagues (2013). Hyperconnectivity is depicted by bright orange arrows pointing upwards. *Abbreviations:* N – number of participants, ROIs- regions of interest, F- female, FDR – false discovery rate, FWE – family-wise error, DMN – default mode network, TPN – task-positive network.