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Supplementary Material

- Article Title: Frontothalamic Circuit Abnormalities in Patients With Bipolar Depression and Suicide Attempts
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Supplementary Content

- As described in the previous articles^[1, 2], for measuring total medication load in BD patients we used a strategy in which each medication was coded as absent = 0, low = 1 (equal or lower average dose), or high = 2 (greater than average dose) with reference to the midpoint of the Physician's Desk Reference recommended daily dose range. We calculated a composite measure of total medication load for each individual, reflecting dose and variety of different medications taken, by summing all individual medications. (see Table 1 in Results).
- 2. The names and dosages of the drugs taken by each patient were detailed in the table below.

Supplementary Table 1. Names and Dosages of Drugs Taken by Each Patient

BPD_SA	Antidepressants	dosage(mg)	Antipsychotics	dosage(mg)	anticonvulsants	dosage(mg)	Lithium	dosage(mg)
PT1001	Sertraline	50	quetiapine	300	valproate	200		
							lithium	
PT1003	Duloxetine	50	aripiprazole	10			carbonate	500
PT1005			quetiapine	200	valproate	300		
PT1006					valproate	400		
PT1007	Sertraline	50	aripiprazole	10	valproate	200		
PT1009	escitalopram	10	quetiapine	100	valproate	300		
							lithium	
PT1010					valproate	200	carbonate	250
PT1012			quetiapine	200	valproate	300		
							lithium	
PT1015	Sertraline	75			valproate	200	carbonate	500
							lithium	
PT1017	Sertraline	50	quetiapine	300			carbonate	250
PT1019			aripiprazole	15	valproate	300		
PT1020	Sertraline	50			valproate	200		
							lithium	
PT1022	fluoxetine	20	olanzapine	5			carbonate	250
PT1023			quetiapine	200	valproate	150		
							lithium	
PT1025			aripiprazole	20			carbonate	500
PT1027	Duloxetine	40			valproate	300		
PT1028	Sertraline	50	quetiapine	250				
PT1030	escitalopram	10	quetiapine	200	valproate	200		
							lithium	
PT1031			olanzapine	5			carbonate	250
PT1032			quetiapine	150	valproate	300		
PT1033					valproate	500		
PT1035	Sertraline	50			valproate	300		
PT1036			quetiapine	200	valproate	200		
PT1038			aripiprazole	10	valproate	300		
							lithium	
PT1039			quetiapine	300			carbonate	500

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BPD_NSA	Antidepressants	dosage(mg)	Antipsychotics	dosage(mg)	anticonvulsants	dosage(mg)	Lithium	dosage
							lithium	
PT1002	Sertraline	50			valproate	300	carbonate	250
PT1004	Duloxetine	40	aripiprazole	10	valproate	200		
							lithium	
PT1008			quetiapine	200			carbonate	500
PT1011			quetiapine	200	valproate	200		
							lithium	
PT1013	escitalopram	10	quetiapine	300			carbonate	250
PT1014			aripiprazole	15	valproate	300		
							lithium	
PT1016			quetiapine	150			carbonate	250
PT1018	Fluoxetine	20	olanzapine	5	valproate	200		
							lithium	
PT1021			aripiprazole	10			carbonate	500
PT1024			quetiapine	150	valproate	300		
PT1026	Sertraline	50	aripiprazole	10				
PT1029					valproate	300		
							lithium	
PT1034	escitalopram	10	aripiprazole	20			carbonate	250
PT1037	Sertraline	50	quetiapine	200	valproate	200		

2.Furthermore, we recalculated the whole brain connectivity based on these ROIs using antidepressant dose as a covariate. After this processing, the results for the whole brain connectivity based on these ROIs are still similar with the previous. (see below)



Supplementary Figure 1. A bar chart of the average Fisher's Z transformed functional connectivity values between the bilateral thalamus ROI and the frontal cortex among the subjects within each group.



Supplementary Figure 2. A bar chart of the average Fisher's Z transformed functional connectivity values between the the bilateral frontal inferior gyrus and the temporal inferior gyrus among the subjects within each group. * < 0.05, ** < 0.01



Supplementary Figure 3. A bar chart of the average Fisher's Z transformed functional connectivity values between the bilateral amygdala ROI and the clusters within frontalparietal and fusiform gyrus among the subjects within each group.



Supplementary Figure 4. A bar chart of the average Fisher's Z transformed functional connectivity values between the bilateral medial frontal cortex ROI and precuneus among the subjects within each group.



Supplementary Figure 5. A bar chart of the average Fisher's Z transformed functional connectivity values between the bilateral anterior cingulate cortex ROI and the clusters within precuneus and frontal cortex among the subjects within each group.

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