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Cortical abnormalities in bipolar disorder: An MRI analysis of 6,503 individuals from the ENIGMA-Bipolar Disorder Working Group

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Abstract (247/250 max)

Despite decades of research, the pathophysiology of bipolar disorder (BD) is still not well understood. Structural brain differences have been associated with BD, but results from neuroimaging studies have been inconsistent. To address this, we performed the largest study to date of cortical gray matter thickness and surface area measures from brain MRI scans of 6,503 individuals including 1,837 unrelated adults with BD and 2,582 unrelated healthy controls for group differences while also examining the effects of commonly prescribed medications, age of illness onset, history of psychosis, mood state, age and sex differences on cortical regions. In BD, cortical gray matter was thinner in frontal, temporal and parietal regions of both brain hemispheres. BD had the strongest effects on left *pars opercularis* (Cohen's $d = -0.293$; $P = 1.71 \times 10^{-21}$), left fusiform gyrus ($d = -0.288$; $P = 8.25 \times 10^{-21}$), and left rostral middle frontal cortex ($d = -0.276$; $P = 2.99 \times 10^{-19}$). Longer duration of illness (after accounting for age at time of scanning) was associated with reduced cortical thickness in frontal, medial parietal, and occipital regions. We found that several commonly prescribed medications, including lithium, antiepileptic, and antipsychotic treatment showed significant associations with cortical thickness and surface area, even after accounting for patients who received multiple medications. Further, we did not detect cortical differences associated with a history of psychosis or mood state at the time of scanning. Our analysis revealed previously undetected associations and provides an extensive analysis of potential confounding variables in neuroimaging studies of BD.

Introduction

Bipolar disorder (BD) is among the most debilitating psychiatric disorders and affects 1 to 3% of the adult population worldwide^{1, 2}. BD is known to be highly heritable with individual risk depending partially on genetics^{3, 4}. However, the underlying neurobiological mechanism of the disorder remains unclear. The prognosis for individuals with BD is mixed: currently approved medications are ineffective for many patients⁵⁻⁸. Treatment regimens for patients with BD include several different medication types, including lithium, antiepileptics, antipsychotics and antidepressants². Some of the most commonly prescribed medications for patients with BD -- including lithium⁹⁻¹² and antiepileptics¹³ -- have also been associated with structural brain differences, but the scope of these effects have not been systematically investigated. Many individuals with BD are initially misdiagnosed¹⁴ and may receive inappropriate treatments¹⁵⁻¹⁷ before presenting symptoms distinguishable from those of related disorders such as major depressive disorder.

Examinations of consistently detected, BD-specific structural brain abnormalities will increase our neurobiological understanding of the illness. Relative to matched controls, BD patients show alterations in cortical thickness, surface area, and the overall gray matter volume^{18, 19} measures that relate to functional impairments in cognition, behavior, and symptom domains^{20, 21}. Cortical thickness and surface area are highly heritable^{22, 23}, and may be affected by largely distinct sets of genes^{24, 25}. By examining regional cortical thickness and surface area differences in individuals with BD relative to healthy controls, we may identify biologically meaningful markers of disease.

Brain abnormalities associated with BD are challenging to identify, as BD is notoriously heterogeneous in symptom profile and cycles¹⁴. A retrospective literature-based meta-analysis of cortical thickness²⁶ found that the most consistent differences between individuals with BD and healthy controls were reduced thickness in the left anterior cingulate²⁷⁻³², left paracingulate^{27-30, 32, 33}, left superior temporal gyrus^{27, 28, 32-35}, and prefrontal regions bilaterally^{27-29, 32-34, 36, 37}. Reports of surface area abnormalities

associated with BD are mixed, and the largest study to date (N=346) failed to detect surface area differences between BD cases vs. controls³³. Overall, there remains considerable uncertainty about the direction and anatomical profile of effects: many studies report no effect in specific cortical regions or significant effects in brain regions inconsistent with prior studies. Therefore, our understanding of BD cortical changes could be improved through a large-scale coordinated and harmonized analysis of the vast amounts of existing data to map brain differences in heterogeneous patient populations worldwide.

We formed the Bipolar Disorder Working Group within the ENIGMA Consortium^{38, 39} with the overarching goal of identifying consistent brain alterations associated with BD and elucidating and controlling for moderating factors that may affect the pathophysiology of BD. This new effort builds upon our previous effort looking at subcortical differences associated with BD⁴⁰ and examines structural brain MRI and clinical data from 6,503 individuals (2,447 of which were BD patients) with the aim of identifying differences in cortical regions consistently associated with BD with unprecedented power. In this large sample we sought to examine effects of: 1) diagnosis; 2) age and sex; 3) subtype diagnosis; 4) duration of illness; 5) medication differences; 6) history of psychosis; and 7) mood state in adults and adolescents.

Methods

Samples

The ENIGMA BD Working Group includes 28 international groups with brain MRI scans and clinical data from BD patients and healthy controls. Overall, we analyzed data from 6,503 people, including 2,447 BD patients and 4,056 healthy controls (including 1,837 unrelated adult patients with BD compared to 2,582 unrelated adult healthy controls). Each cohort's demographics are detailed in **Table S1**. **Table S2** gives the instrument used to obtain diagnosis and medication information and **Table S3** lists exclusion criteria for study enrolment. All participating sites obtained approval from their local institutional review boards and ethics committees, and all study participants provided written informed consent.

Image processing and analysis

Structural T1-weighted MRI brain scans were acquired at each site and analyzed locally using harmonized analysis and quality control protocols from the ENIGMA consortium, that have previously been applied in large-scale studies of major depression⁴¹. Image acquisition parameters and software descriptions are given in **Table S4**. Cortical segmentations and parcellations for each cohort were created with the freely available and validated segmentation software, FreeSurfer⁴². Segmentations of 68 (34 left and 34 right) cortical gray matter regions were created based on the Desikan-Killiany atlas⁴³ (as well as the hemispheric total surface area and average cortical thickness). Segmented regions were visually inspected and statistically evaluated for outliers following standardized ENIGMA protocols (<http://enigma.ini.usc.edu/protocols/imaging-protocols>). Individual sites were provided with examples of good/poor segmentation across the cortex. Diagnostic histogram plots were generated for each site and outlier subjects were flagged for further review (shared with DPH).

Statistical models of cortical differences

We examined group differences in cortical thickness and pial surface area between patients and controls using mixed-effect models, accounting for site as a random effect. Our focus was to examine differences in adults (defined as ≥ 25 years old at time of scanning) and separately cortical differences in adolescents

(defined as <25 years old at time of scanning). In the analysis of adults, the outcome measures were from each of the 70 cortical ROIs (68 regions and two whole-hemisphere average thickness or total surface area measures). A binary indicator of diagnosis (0=controls, 1=patients) was the predictor of interest. All cortical thickness models were adjusted for age and sex; all cortical surface area models were corrected for intracranial volume (ICV), age, sex, age-by-sex, age-squared, and age-squared-by-sex, to account for any higher-order effects on cortical surface area of age and sex as well as head size, which do not appear to be detectable for cortical thickness measures⁴⁴. Effect size estimates were calculated using the Cohen's *d* metric computed from the *t*-statistic of the diagnosis indicator variable from the regression models. Similarly, for models testing interactions the predictor of interest was the product of two variables (i.e., sex-by-diagnosis and age-by-diagnosis), with the main effect of each predictor included in the model. The effect size was calculated using the same procedure. In cases where the predictor of interest was a continuous variable (e.g., duration of illness) we calculated the Pearson's *r* effect size from the *t*-statistic of the predictor in the regression model. Throughout the manuscript we report uncorrected *p*-values, with a significance threshold over all tests in the study determined by the false discovery rate (FDR) procedure at $q=0.05$ ⁴⁵.

We further examined patient-specific clinical characteristics including diagnosis subtype, medication, duration of illness, history of psychosis, and mood state at time of scanning for effects on cortical thickness and surface area. Patients with a subtype diagnosis of BD type-1 or type-2 were compared to each other using the same statistical framework detailed above. Information on the instrument used for subtype diagnosis is available in **Table S2**. Medications at time of scanning (not including past medication exposure) were grouped into five major categories (lithium, antidepressants, antiepileptics, atypical and typical antipsychotics) and were jointly examined for effects on cortical thickness and surface area, within the same model. More specifically, we created a series of binary indicator variables for each medication type where a given subject was either 1 - taking the medication - or 0 - not taking the medication. All medication variables were included as predictors in a model (in addition to the confounding variables listed previously) with a cortical thickness or surface area measure as the outcome of interest. From this model, we were able to examine each medication predictor for its effect on a given cortical trait after accounting for all other medications. We also examined the effect of duration of illness, defined as the difference between age at time of scan and age at first diagnosis. To minimize the likelihood of spurious correlations due to the high correlation between duration of illness and age at scan, while still being able to examine brain differences associated with illness duration, we performed a hierarchical regression with two levels. First, we used a multiple linear regression model with all potential confounding variables included and a given cortical thickness or surface area trait as the outcome. Next, we used a mixed-effect model with the residuals of the first model included as the outcome of interest, duration of illness as the predictor of interest, and site as a random effect. We calculated effect size estimates for each cortical trait from the *t*-statistics in this second model. We examined patient-specific differences in the cortex of BD patients with at least one episode of psychosis compared to patients without a history of psychosis. Patients with a history of psychosis were coded as 1 and those without were coded as 0. Mood state at time of scanning, either euthymic or depressed (other mood states such as manic, hypomanic, and mixed had insufficient numbers to perform a comparison), was examined for differential effects on the cortices of BD patients. In the comparison euthymic patients were coded as 0 and depressed patients were coded as 1. Effect size statistics were calculated as stated previously. Finally, we examined potential sources of bias based on imaging acquisition and analysis parameters including field strength, voxel volume, and FreeSurfer version. Field strength and FreeSurfer version were assessed for significance using a partial-*F* test where the full model included a factor with the imaging parameters in addition to the full set of covariates described above and the reduced model contained only the full set of covariates. Voxel volume was assessed directly for

effect on cortical thickness and surface area and effect sizes were estimated based on the Pearson's r of the voxel volume predictor in a model including the full set of covariates mentioned above.

Results

Widespread cortical thinning associated with bipolar disorder in adults

We found a significant and widespread pattern of reduced cortical thickness associated with BD (1,837 BD patients, 2,582 controls; **Figure 1**) with the largest effects in the left *pars opercularis* (Cohen's $d = -0.293$; $P = 1.71 \times 10^{-21}$), left fusiform gyrus ($d = -0.288$; $P = 8.25 \times 10^{-21}$), and left rostral middle frontal cortex ($d = -0.276$; $P = 2.99 \times 10^{-19}$). Large effects on average thickness over the left and right hemispheres were also present ($d = -0.325$; $P = 2.86 \times 10^{-25}$; $d = -0.303$; $P = 3.35 \times 10^{-22}$, respectively). Full results for the analysis of cortical thickness are presented in **Table 1**. We did not detect significant differences in cortical surface area ROIs associated with BD in adults (**Table S5**). Further, we did not detect significant differences in cortical thickness or surface area ROIs (**Table S7 and S8**) for the sex-by-diagnosis interaction. We found evidence of an age-by-diagnosis interaction showing reduced surface area of the left posterior cingulate cortex ($d = -0.100$; $P = 0.00112$) with increasing age. No other significant differences in cortical thickness or surface area for the age-by-diagnosis interaction were detected (**Table S9 and S10**).

No significant cortical thickness or surface area differences between BD subtypes

We compared 1,275 unrelated, adult patients diagnosed with BD type-1 to 345 unrelated, adult patients diagnosed with BD type-2. We did not detect significant differences in cortical thickness or surface area ROIs associated with subtype (**Table S11 and S12**).

Significant association of duration of illness on cortical thickness but not surface area

We found a broad pattern of reduced cortical thickness significantly associated with longer illness duration with the strongest effects in the left and right pericalcarine gyrus (Pearson's $r = -0.129$; $P = 1.35 \times 10^{-6}$; $r = -0.123$; $P = 3.96 \times 10^{-6}$), left rostral anterior cingulate gyrus ($r = -0.091$; $P = 6.09 \times 10^{-4}$), right cuneus ($r = -0.090$; $P = 7.44 \times 10^{-4}$) and evidence of significantly increased thickness in the right entorhinal gyrus ($r = 0.089$; $P = 9.19 \times 10^{-4}$) (**Figure 2**; **Table S13**). Cortical surface area ROIs in adult BD patients were not significantly associated with illness duration (**Table S14**).

Widespread effects on cortical thickness and surface area associated with commonly prescribed medications in adults diagnosed with bipolar disorder

We examined cortical thickness and surface area differences associated with five major medication families: lithium, antiepileptics, antidepressants, and typical and atypical antipsychotics in adult patients with BD. We found significant evidence of increased cortical thickness associated with taking lithium ($n=700$; compared to those not taking lithium $n=892$) with the largest effects in the left paracentral gyrus ($d = 0.211$; $P = 7.96 \times 10^{-5}$) and the left and right superior parietal gyrus ($d = 0.202$; $P = 1.60 \times 10^{-4}$; $d = 0.188$; $P = 4.39 \times 10^{-4}$) (**Figure 3**; **Table S15**). We also found evidence of increased surface area in the left paracentral lobule ($d = 0.17$; $P = 0.0015$) (**Table S16**).

In the patient group, reduced cortical thickness was associated with antiepileptic treatment (n=576 compared to patients not taking antiepileptics n=932) with the largest effects in the left and right lateral occipital gyrus ($d = -0.360$; $P = 5.35 \times 10^{-11}$; $d = -0.357$; $P = 7.24 \times 10^{-11}$) and right paracentral gyrus ($d = -0.326$; $P = 2.57 \times 10^{-9}$) (Figure 4; Table S17). Cortical surface area was not significantly associated with antiepileptic treatment for any ROI (Table S18).

Increased cortical surface area was associated with typical antipsychotic treatment (n=78 compared to patients not taking typical antipsychotics n=1419) in the left middle temporal gyrus ($d = 0.439$; $P = 2.83 \times 10^{-4}$), left inferior parietal gyrus ($d = 0.366$; $P = 0.00213$), and right temporal pole ($d = 0.382$; $P = 0.00147$; Table S20). We did not detect any significant associations between cortical thickness and typical antipsychotic treatment (Table S19).

We found significant evidence of reduced cortical surface area associated with atypical antipsychotic treatment (n=504 compared to patients not taking atypical antipsychotics n=994) in the right rostral middle frontal gyrus ($d = -0.199$; $P = 4.00 \times 10^{-4}$) and right superior frontal gyrus ($d = -0.187$; $P = 8.61 \times 10^{-4}$; Table S22). We did not detect significant associations between cortical thickness and atypical antipsychotic treatment (see Table S21).

We did not detect any significant association between in cortical thickness (Table S23) or surface area (Table S24) and antidepressant treatment.

Association of cortical surface area with history of psychosis and mood state findings at time of scanning

When comparing 768 adult BD patients with a history of psychosis with 619 patients without a history of psychosis we found evidence of reduced surface area in the right frontal pole ($d = -0.167$; $P = 0.0023$). We did not detect differences in cortical thickness or surface area in any other regions of interest (Table S25 and S26). Further, we did not detect differences in cortical thickness or surface area when comparing patients that were depressed at the time of scanning (n=210) with patients that were euthymic at time of scanning (n=819) (Table S27 and S28). Comparisons with other mood states such as hypomanic, manic, and mixed were not possible due to small sample sizes.

Association of cortical thickness and surface area with bipolar disorder in adolescents

We compared cortical thickness and surface area between 411 adolescent patients diagnosed with BD and 1,035 healthy adolescents (mean age: 21.1 years \pm 3.1SD; age of onset: 20.3 \pm 9.5; and age range: 8 to 24.9). We found significantly reduced thickness in the right supramarginal gyrus ($d = -0.195$; $P = 0.00102$) and reduced surface area in the left insula ($d = -0.184$; $P = 0.00196$) (Table S29 and S30) measures. We found a broad pattern of significant interactions between age and diagnosis whereby older BD patients had reduced cortical thickness beyond the effects of age and diagnosis with the strongest effect observed in the left rostral middle frontal gyrus ($d = -0.264$; $P = 8.83 \times 10^{-6}$). We further found evidence of an interaction between sex and diagnosis in frontal and temporal lobe gyri whereby adolescent female BD patients showed less thinning than could be explained by sex and diagnosis with the strongest effect in the right *pars triangularis* ($d = 0.264$; $P = 8.56 \times 10^{-6}$). Fully tabulated results for the age-by-diagnosis and sex-by-diagnosis comparison with cortical thickness are available in Table S34 and Table S32, respectively. We did not detect significant differences in cortical surface area for the sex-by-diagnosis interaction (Table S33) or the age-by-diagnosis interaction (Table S35). Further examinations of diagnosis subtype, duration of illness, and medication effects in our adolescent sample are detailed in

Supplementary Note 1. We did not find evidence of bias in cortical thickness and surface area estimates by field strength, FreeSurfer version, or voxel volume in adults or adolescents (**Supplementary Note 2**).

Discussion

Here we present a highly powered study on structural brain differences in the cortex of patients with bipolar disorder (BD) using the largest sample to date. Relative to healthy controls, adults with BD had widespread bilateral patterns of reduced cortical thickness in frontal, temporal, and parietal regions. In adolescents, we found reduced thickness and surface area in the supramarginal gyrus and insula (respectively) associated with BD.

In addition, we found evidence of significant age-by-diagnosis effects whereby older adolescent patients with BD had additional cortical thinning beyond what could be explained by the effects of age and diagnosis alone. This interaction may capture the accelerated thinning associated with age-related brain changes and the pathophysiology of BD. We also found evidence of significant sex-by-diagnosis effects whereby adolescent female BD patients have less thinning than would be expected based on sex and diagnosis effects alone. The dampened cortical thinning of adolescent female patients with BD may reflect the sexual dimorphism in cortical development in which females, in general, have a thicker cortex than males⁴⁶. However, this interaction effect was not detected in our comparisons of adults and therefore appears to not be present at later stages in life. However, these findings should be confirmed in independent samples, and ideally in longitudinal studies.

Interestingly, even in the current highly powered sample, only one of the analyses of diagnosis showed evidence of effects on cortical surface area (reduced surface area in the insula of adolescents). When reanalyzing the surface area differences without head size as a covariate (i.e., with the intracranial volume covariate removed) an additional region of interest (right entorhinal gyrus) showed a significantly increased surface area in adults with BD (**Table S6 and S31**). In general, BD appears to be associated with reduced cortical thickness but not surface area. Cortical thickness is thought to be a localized measure of neuron numbers within a cortical layer while surface area is a measure of cortical column layer numbers and overall size of the cortex^{18, 19, 47}. It is therefore possible that the neurobiological mechanisms associated with BD reduce neuron numbers, but do not affect overall size of the cortex or cortical columnar organization.

We examined the effects of five major drug families (lithium, antiepileptics, antidepressants, atypical and typical antipsychotics) on cortical thickness and surface area in BD patients. Our statistical model accounted for different drug combinations across individuals. In adults and adolescents, treatment with lithium or antiepileptics showed significant evidence of an effect on cortical thickness. Prior studies of these medication types found a similar pattern of effects on surface area and thickness throughout the brain⁹⁻¹³. The increased cortical thickness associated with lithium treatment is hypothesized to be driven by a neurotrophic effect of lithium on gray matter^{11, 48}. Interestingly, the regions with the lowest thickness associated with antiepileptic treatment were the primary visual processing areas, in the occipital lobe. Treatment with antiepileptics has previously been reported to be associated with visual deficits⁴⁹. We found evidence of reduced cortical surface area with atypical antipsychotics, which is in line with previous prospective longitudinal studies in schizophrenia^{50, 51}. Our finding of increased cortical surface area associated with typical antipsychotics is difficult to interpret. The total number of patients in our sample taking typical antipsychotics was quite small (about 5%). Further efforts are needed with

larger sample sizes in order to examine this effect more definitively. Our findings highlight the importance of accounting and controlling for medications when assessing brain differences in patients with BD.

We did not detect thickness or surface area differences between adult patients diagnosed with BD type-1 versus type-2. This is consistent with our prior work examining subcortical structural alterations in BD, where we also did not find significant volumetric differences between BD subtypes⁴⁰. Several previous studies have identified differences in cortical thickness and surface area associated with BD type-1 that do not appear to be apparent in type-2^{13, 33}. However, most large meta-analyses have failed to detect a difference between disorders subtypes^{52, 53}. Despite the differences in clinical presentation of patients with BD type-1 and type-2, analyses of brain structure and genetics indicate that there are few detectable differences between the subtypes^{13, 33, 53, 54}. It appears then, that the current measures of cortical and subcortical structures are not sensitive to differences in subtype. It is possible that the subtype differences are more focal and remain undetected in this ROI-based analysis. Efforts that examine vertexwise data can help examine these issues with a greater resolution across the cortex. In addition, it should be noted that the number of adult patients diagnosed with BD type-2 (n=345) was lower than those with BD type-1 (n=1,275). A larger (better balanced) sample size in both groups would help determine the differences more definitively.

We investigated the effect of mood state at time of scanning as well as patient history of psychosis for effects on the cortex. In adult and adolescent patients with BD we did not find evidence of significant differences in cortical thickness or surface area associated with a euthymic or depressed mood state at the time of scanning. The total sample size for other additional mood states (e.g. manic, hypomanic, mixed) were too small to allow for comparisons across groups. This suggests that mood state at time of scanning, at least for euthymic and depressed patients, does not influence cortical thickness and surface area measurements. However, different aspects of mood such as length of time in a given mood state or number of episodes are potential areas for further study though those measures were either unavailable or unreliable in the majority of site participating in this analysis. When we examined adult and adolescent BD patients with at least one previous episode of psychosis compared to patients without a history of psychosis we found evidence of reduced cortical surface area associated with a history of psychosis in the frontal pole of adults and the inferior temporal gyrus and caudal anterior cingulate cortex in adolescents.

Duration of illness has previously been suggested to have effects on cortical thickness in BD^{55, 56}. Our study is cross-sectional, i.e. we are not observing changes in thickness over time, but instead evaluating patients with varying durations of illness. We did find significant evidence of reduced cortical thickness associated with longer duration of illness in adults with BD in the occipital cortex, left parietal, and right frontal cortex. However, our current cross-sectional model limits the interpretation of effects that depend on duration of illness. Large-scale, longitudinal studies of BD are needed to specifically examine how illness duration and treatment over time affects the brain. Several such efforts are underway⁵⁷⁻⁵⁹, but greater resources are needed in this area to increase power to identify robust effects.

Strengths of this study include a large sample size and harmonized analysis of the cortex, but there are several limitations: 1) samples come from heterogeneous sources - from centers around the world. While we explicitly model differences between sites (including imaging parameters such as field strength, FreeSurfer version and voxel volume), sources of heterogeneity (such as treatment response, stage of illness, ethnicity/race) in our estimates still remain. BD itself is quite heterogeneous and while we attempt to model sources of heterogeneity both in the clinic and at the level of the patient, the

overall effect sizes observed in this study are quite small. This suggests that the value of cortical thickness and surface area as a biomarker will likely be strongest when examined in combination with risk gene variants and additional biomarkers that reflect variation in other aspects of the disorder; 2) we examined the moderating effects of commonly prescribed medications, but our cross-sectional data represent only a snapshot of the medication history of a given subject. While we believe that our medication models do reveal distinct and biologically meaningful patterns of effects on the cortex, we acknowledge that a large, prospective, and longitudinal study of BD is the best way to disentangle these effects; 3) several moderating factors (e.g., alcohol dependence⁶⁰, smoking^{61, 62}, substance abuse⁶³) may influence cortical structure, but were not included in this study as these data were not available in a large portion of the datasets; (4) we examined subjects with a diagnosis of BD excluding patients with head trauma or neurological disorders, however, many sites enrolled patients with co-morbid psychiatric disorders including anxiety and personality disorders. It therefore remains possible that the effects described here are affected by comorbid diagnoses; and (5) these data are focused on the structure of the cortex including thickness and surface area. Patterns of effects (and lack of effects) may differ when examining other brain imaging modalities (e.g., white matter tracts⁶⁴ and resting state networks⁶⁵). Integrating multimodal information on BD will likely improve our understanding of the disorder and help the development of biomarkers. However, large-scale, mono-modality analyses are necessary to first determine the effectiveness of a given modality and its suitability for inclusion in future multi-modal study designs.

In general, our findings are consistent with prior reports of a thinner frontal and temporal cortex in BD²⁶. The brain regions associated with the largest reductions in cortical thickness in adult patients diagnosed with BD were located in the ventrolateral prefrontal cortex (VLPFC), which has been an area of considerable focus and study in the BD literature⁶⁶. Functional brain imaging studies have shown increased activity in the VLPFC in remitted BD during emotion regulation⁶⁷ and increased activity in depressed BD during a cognitive task (planning) compared to depressed MDD⁶⁸. Functional and structural abnormalities in the VLPFC of unaffected first-degree relatives have also been observed^{69, 70}. The findings in this study not only confirm the most consistent effects from prior studies but also provide novel evidence of effects showing that: 1) inferior parietal regions are associated with significantly reduced thickness in adults with BD; 2) inferior temporal regions (including the fusiform gyrus and middle temporal gyrus) are associated with reduced cortical thickness in adults with BD. The inferior parietal lobe is involved in sensorimotor integration of the mirror neuron system⁷¹ and language tasks⁷². Structural deficits in these brain regions may be implicated in changes in emotion perception associated with BD, that in turn are suggested to explain fluctuating or rapid changes in mood^{73, 74}. The inferior temporal lobe - comprised of the middle and inferior temporal gyrus and the fusiform gyrus - plays a major role in the ventral stream of visual processing and spatial awareness. Further, the inferior temporal lobe receives dense neuronal projections from the amygdala and is hypothesized to feed visual perceptions into the emotion processing circuit⁷⁵. Our analysis of a family-based cohort enriched for BD (UCLA-BP; n=527) shows a similar pattern of effects in the frontal and temporal lobes. However, regional differences in the occipital lobe were not associated with BD in the UCLA-BP cohort. We previously showed that limbic subcortical structures (including the hippocampus and thalamus), which receive dense connections with frontal and temporal lobe regions, showed evidence of volumetric reductions in BD⁴⁰. A prior analysis of heritability in the UCLA-BP cohort shows that frontal and temporal lobe differences are both partially heritable and attributable to BD pathophysiology⁷⁶. It should be noted that cortical thinning in general is not specific to BD; it has been shown in other related disorders like schizophrenia³³ and major depression⁴¹. Future efforts should examine the value of cortical thickness and surface area as a pattern of effects across the cortex for distinguishing major psychiatric disorders. While we demonstrate a clear pattern of cortical thinning associated with BD, future endeavors should

examine the value of these measures for improving the lives of patients including in studies of quality of life, patient outcomes, and early detection and intervention.

Conflicts of Interest

AMM has received funding from Lilly, Janssen and Pfizer. It is unconnected with the current work. TvE has a contract with Otsuka Pharmaceutical Inc. The contract is not related to this work. UFM participated in the speaker's bureau for Lundbeck Norway and was a consultant for Takeda Pharmaceuticals. ACB has received salaries from P1vital Ltd, which is unrelated to this work. PGR trained personnel for Janssen Pharmaceuticals. It is unconnected with the current work. DPH and WCD are employed by Janssen Research and Development, LLC. MB has received grant/research support from Deutsche Forschungsgemeinschaft (DFG), Bundesministeriums für Bildung und Forschung (BMBF), American Foundation of Suicide Prevention. MB is/has been a consultant for AstraZeneca, Bristol Myers Squibb, Ferrer Internacional, Janssen, Lilly, Lundbeck, Merz, Neuraxpharm, Novartis, Otsuka, Servier, Takeda, and has received speaker honoraria from AstraZeneca, GlaxoSmithKline, Lilly, Lundbeck, Otsuka and Pfizer, which is all unrelated to this work. OAA has received speaker's honorarium from Lundbeck, Otsuka and Lilly. No other authors have conflicts of interest to declare. All authors have contributed to and approved the contents of this manuscript.

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Figures

Figure 1. Cortical thinning in adult patients with bipolar disorder compared to healthy controls. Cohen's d effect sizes are plotted for each ROI on the inflated surface of a template image. Only significant regions are shown; non-significant regions are colored in gray.

Figure 2. Cortical thinning in adult patients with bipolar disorder associated with duration of illness. Pearson's correlation r effect sizes are plotted for each ROI on the inflated surface of a template image. Only significant regions are shown; non-significant regions are colored in grey.

Figure 3. Cortical thickening in adult patients with bipolar disorder associated with lithium treatment. Cohen's d effect sizes are plotted for each ROI on the inflated surface of a template image. Only significant regions are shown; non-significant regions are colored in grey.

Figure 4. Cortical thinning in adult patients with bipolar disorder associated with antiepileptic treatment. Cohen's d effect sizes are plotted for each ROI on the inflated surface of a template image. Only significant regions are shown; non-significant regions are colored in grey.

Table 1. Cortical thickness differences associated with bipolar disorder in adults (age >= 25 years old).

	Cohen's <i>d</i> (BD vs. CTL)	Std. Err.	95% CI	% Difference	P-value	FDR P-value	# Controls	# Patients
Left hemisphere average thickness	-0.325	0.031	[-0.386 - -0.264]	-1.800	2.86x10 ⁻²⁵	1.08x10 ⁻²¹	2559	1769
Right hemisphere average thickness	-0.303	0.031	[-0.364 - -0.242]	-1.707	3.35x10 ⁻²²	6.33x10 ⁻¹⁹	2554	1768
Left pars opercularis of inferior frontal gyrus	-0.293	0.031	[-0.354 - -0.233]	-2.251	1.71x10 ⁻²¹	2.16x10 ⁻¹⁸	2581	1837
Left fusiform gyrus	-0.288	0.031	[-0.349 - -0.228]	-2.579	8.25x10 ⁻²¹	7.80x10 ⁻¹⁸	2580	1835
Left rostral middle frontal gyrus	-0.276	0.031	[-0.336 - -0.216]	-2.114	2.99x10 ⁻¹⁹	2.26x10 ⁻¹⁶	2579	1837
Left pars triangularis of inferior frontal gyrus	-0.270	0.031	[-0.33 - -0.21]	-2.258	1.65x10 ⁻¹⁸	1.04x10 ⁻¹⁵	2581	1837
Right fusiform gyrus	-0.267	0.031	[-0.327 - -0.207]	-2.431	4.77x10 ⁻¹⁸	2.58x10 ⁻¹⁵	2570	1833
Left caudal middle frontal gyrus	-0.266	0.031	[-0.326 - -0.206]	-2.074	5.85x10 ⁻¹⁸	2.76x10 ⁻¹⁵	2581	1835
Left inferior parietal cortex	-0.265	0.031	[-0.326 - -0.205]	-1.889	6.84x10 ⁻¹⁸	2.87x10 ⁻¹⁵	2580	1834
Right rostral middle frontal gyrus	-0.264	0.031	[-0.324 - -0.204]	-2.048	1.21x10 ⁻¹⁷	4.57x10 ⁻¹⁵	2572	1832
Right inferior parietal cortex	-0.258	0.031	[-0.318 - -0.198]	-1.911	5.19x10 ⁻¹⁷	1.78x10 ⁻¹⁴	2574	1834
Right superior frontal gyrus	-0.256	0.031	[-0.316 - -0.196]	-1.887	9.09x10 ⁻¹⁷	2.86x10 ⁻¹⁴	2574	1833
Left supramarginal gyrus	-0.253	0.031	[-0.313 - -0.192]	-1.852	2.30x10 ⁻¹⁶	6.70x10 ⁻¹⁴	2580	1837
Left middle temporal gyrus	-0.252	0.031	[-0.312 - -0.192]	-1.940	2.77x10 ⁻¹⁶	7.47x10 ⁻¹⁴	2579	1831
Left inferior temporal gyrus	-0.250	0.031	[-0.31 - -0.19]	-2.606	5.01x10 ⁻¹⁶	1.26x10 ⁻¹³	2576	1824
Right pars opercularis of inferior frontal gyrus	-0.248	0.031	[-0.308 - -0.188]	-1.925	7.95x10 ⁻¹⁶	1.88x10 ⁻¹³	2574	1834
Left pars orbitalis of inferior frontal gyrus	-0.246	0.031	[-0.306 - -0.186]	-2.236	1.34x10 ⁻¹⁵	2.98x10 ⁻¹³	2580	1837
Right pars orbitalis of inferior frontal gyrus	-0.241	0.031	[-0.301 - -0.181]	-2.154	4.85x10 ⁻¹⁵	1.02x10 ⁻¹²	2572	1835
Left superior frontal gyrus	-0.233	0.031	[-0.293 - -0.173]	-1.720	3.97x10 ⁻¹⁴	7.91x10 ⁻¹²	2581	1835
Right pars triangularis of inferior frontal gyrus	-0.231	0.031	[-0.291 - -0.171]	-1.913	6.79x10 ⁻¹⁴	1.28x10 ⁻¹¹	2574	1835
Right medial orbitofrontal cortex	-0.230	0.031	[-0.29 - -0.17]	-2.177	9.15x10 ⁻¹⁴	1.65x10 ⁻¹¹	2567	1823
Right middle temporal gyrus	-0.219	0.031	[-0.279 - -0.159]	-2.008	1.15x10 ⁻¹²	1.97x10 ⁻¹⁰	2572	1833
Right lateral occipital cortex	-0.219	0.031	[-0.279 - -0.159]	-1.613	1.24x10 ⁻¹²	2.03x10 ⁻¹⁰	2571	1832
Left lateral orbitofrontal cortex	-0.216	0.031	[-0.276 - -0.156]	-1.747	1.97x10 ⁻¹²	3.11x10 ⁻¹⁰	2581	1835

Left precentral gyrus	-0.211	0.031	[-0.271 - -0.151]	-1.695	7.37×10^{-12}	1.12×10^{-9}	2580	1833
Left precuneus	-0.209	0.031	[-0.269 - -0.149]	-1.528	1.04×10^{-11}	1.51×10^{-9}	2581	1837
Left superior temporal gyrus	-0.209	0.031	[-0.269 - -0.149]	-1.480	1.08×10^{-11}	1.51×10^{-9}	2574	1829
Left lingual gyrus	-0.208	0.031	[-0.268 - -0.148]	-1.563	1.26×10^{-11}	1.71×10^{-9}	2580	1835
Right caudal middle frontal gyrus	-0.208	0.031	[-0.268 - -0.148]	-1.639	1.32×10^{-11}	1.72×10^{-9}	2573	1835
Left banks of superior temporal sulcus	-0.207	0.031	[-0.267 - -0.147]	-1.682	1.61×10^{-11}	2.03×10^{-9}	2579	1830
Right lateral orbitofrontal cortex	-0.207	0.031	[-0.267 - -0.147]	-1.705	1.85×10^{-11}	2.26×10^{-9}	2573	1833
Left medial orbitofrontal cortex	-0.199	0.031	[-0.259 - -0.139]	-1.919	1.01×10^{-10}	1.12×10^{-8}	2572	1826
Left insula	-0.198	0.031	[-0.258 - -0.138]	-1.379	1.14×10^{-10}	1.23×10^{-8}	2578	1836
Right lingual gyrus	-0.197	0.031	[-0.257 - -0.137]	-1.470	1.40×10^{-10}	1.47×10^{-8}	2574	1835
Right superior temporal gyrus	-0.194	0.031	[-0.255 - -0.134]	-1.496	2.87×10^{-10}	2.93×10^{-8}	2564	1823
Right inferior temporal gyrus	-0.189	0.031	[-0.249 - -0.129]	-2.101	8.29×10^{-10}	8.25×10^{-8}	2572	1827
Right precuneus	-0.188	0.031	[-0.248 - -0.128]	-1.432	1.03×10^{-9}	1.00×10^{-7}	2574	1835
Right supramarginal gyrus	-0.184	0.031	[-0.245 - -0.124]	-1.379	2.12×10^{-9}	2.00×10^{-7}	2565	1828
Right isthmus cingulate cortex	-0.183	0.031	[-0.243 - -0.123]	-1.664	2.49×10^{-9}	2.30×10^{-7}	2573	1834
Right precentral gyrus	-0.179	0.031	[-0.239 - -0.119]	-1.450	6.14×10^{-9}	5.40×10^{-7}	2569	1830
Right insula	-0.168	0.031	[-0.228 - -0.108]	-1.166	4.64×10^{-8}	3.58×10^{-6}	2567	1832
Right posterior cingulate cortex	-0.166	0.031	[-0.226 - -0.106]	-1.282	6.20×10^{-8}	4.60×10^{-6}	2574	1834
Left superior parietal cortex	-0.161	0.031	[-0.221 - -0.102]	-1.259	1.46×10^{-7}	1.01×10^{-5}	2580	1837
Right superior parietal cortex	-0.158	0.031	[-0.218 - -0.098]	-1.357	2.53×10^{-7}	1.70×10^{-5}	2574	1834
Left lateral occipital cortex	-0.156	0.031	[-0.216 - -0.096]	-1.103	3.63×10^{-7}	2.36×10^{-5}	2577	1832
Left rostral anterior cingulate cortex	-0.153	0.031	[-0.213 - -0.093]	-1.523	5.97×10^{-7}	3.82×10^{-5}	2578	1834
Right paracentral lobule	-0.140	0.031	[-0.2 - -0.08]	-1.164	5.24×10^{-6}	2.91×10^{-4}	2574	1834
Left paracentral lobule	-0.137	0.031	[-0.197 - -0.077]	-1.170	7.71×10^{-6}	4.10×10^{-4}	2581	1836
Left isthmus cingulate cortex	-0.132	0.031	[-0.192 - -0.073]	-1.194	1.60×10^{-5}	7.36×10^{-4}	2580	1836
Right banks of superior temporal sulcus	-0.125	0.031	[-0.185 - -0.065]	-1.037	5.00×10^{-5}	2.05×10^{-3}	2574	1832
Left transverse temporal gyrus	-0.120	0.031	[-0.18 - -0.06]	-1.280	9.06×10^{-5}	3.64×10^{-3}	2579	1837
Left frontal pole	-0.118	0.031	[-0.178 - -0.058]	-1.401	1.18×10^{-4}	4.71×10^{-3}	2578	1836
Left temporal pole	-0.116	0.031	[-0.176 - -0.056]	-1.745	1.70×10^{-4}	6.22×10^{-3}	2572	1812

Left posterior cingulate cortex	-0.112	0.031	[-0.172 - -0.052]	-0.824	2.74×10^{-4}	9.24×10^{-3}	2580	1837
Right transverse temporal gyrus	-0.109	0.031	[-0.169 - -0.049]	-1.182	3.76×10^{-4}	0.012	2574	1834
Right frontal pole	-0.102	0.031	[-0.162 - -0.042]	-1.212	9.41×10^{-4}	0.024	2570	1832
Left postcentral gyrus	-0.096	0.031	[-0.156 - -0.036]	-0.782	1.79×10^{-3}	0.040	2580	1830
Left caudal anterior cingulate cortex	-0.095	0.031	[-0.155 - -0.035]	-1.007	1.88×10^{-3}	0.042	2580	1836
Right rostral anterior cingulate cortex	-0.087	0.031	[-0.147 - -0.027]	-0.858	4.84×10^{-3}	0.086	2570	1833
Right parahippocampal gyrus	-0.086	0.031	[-0.146 - -0.026]	-1.018	5.36×10^{-3}	0.091	2573	1824
Right entorhinal cortex	-0.084	0.031	[-0.144 - -0.024]	-1.246	6.59×10^{-3}	0.105	2567	1797
Right postcentral gyrus	-0.075	0.031	[-0.135 - -0.015]	-0.638	0.014	0.178	2570	1828
Right caudal anterior cingulate cortex	-0.063	0.031	[-0.123 - -0.003]	-0.663	0.039	0.329	2571	1834
Right temporal pole	-0.059	0.031	[-0.119 - 0.001]	-0.912	0.057	0.391	2563	1810
Left cuneus	-0.056	0.031	[-0.116 - 0.004]	-0.526	0.068	0.421	2579	1835
Left entorhinal cortex	-0.036	0.031	[-0.096 - 0.024]	-0.492	0.244	0.691	2569	1803
Right cuneus	-0.029	0.031	[-0.089 - 0.031]	-0.266	0.352	0.774	2572	1833
Left parahippocampal gyrus	-0.022	0.031	[-0.082 - 0.038]	-0.271	0.479	0.839	2581	1820
Left pericalcarine cortex	0.020	0.031	[-0.04 - 0.08]	0.236	0.510	0.843	2578	1836
Right pericalcarine cortex	0.015	0.031	[-0.045 - 0.075]	0.173	0.626	0.896	2574	1832

Cortical abnormalities in bipolar disorder: An MRI analysis of 6,503 individuals from the ENIGMA-Bipolar Disorder Working Group

Supplementary Materials

Supplementary Note 1. Detailed breakdown of findings in adolescent samples including an examination of diagnosis subtype, duration of illness, medication effects, history of psychosis, and mood state at time of scanning.

Supplementary Note 2. Cortical thickness and surface area estimates are not biased by imaging parameter differences.

Supplementary Table 1. ENIGMA - Bipolar Disorder Working Group Demographics. Age (in years), sex, and case-control breakdown for participating sites.

Supplementary Table 2. Diagnosis and medication information.

Supplementary Table 3. Inclusion and exclusion criteria used by each site.

Supplementary Table 4. Image acquisition and processing details by site.

Supplementary Table 5. Cortical surface area differences in adults (all BD patients compared to controls)

Supplementary Table 6. Cortical surface area differences in adults without controlling for ICV (all BD patients compared to controls)

Supplementary Table 7. Sex-by-Diagnosis interaction on cortical thickness differences in adults (all BD patients compared to controls)

Supplementary Table 8. Sex-by-Diagnosis interaction on cortical surface area differences in adults (all BD patients compared to controls)

Supplementary Table 9. Age-by-Diagnosis interaction on cortical thickness differences in adults (all BD patients compared to controls)

Supplementary Table 10. Age-by-Diagnosis interaction on cortical surface area differences in adults (all BD patients compared to controls)

Supplementary Table 11. Cortical thickness differences in adults (BD type-1 patients compared to BD type-2)

Supplementary Table 12. Cortical surface area differences in adults (BD type-1 patients compared to BD type-2)

Supplementary Table 13. Illness duration on cortical thickness in adults (all BD patients)

Supplementary Table 14. Illness duration on cortical surface area in adults (all BD patients)

Supplementary Table 15. Effects of lithium on cortical thickness in adults (all BD patients, controlling for all other medications)

Supplementary Table 16. Effects of lithium on cortical surface area in adults (all BD patients, controlling for all other medications)

Supplementary Table 17. Effects of antiepileptics on cortical thickness in adults (all BD patients, controlling for all other medications)

Supplementary Table 18. Effects of antiepileptics on cortical surface area in adults (all BD patients, controlling for all other medications)

Supplementary Table 19. Effects of typical antipsychotics on cortical thickness in adults (all BD patients, controlling for all other medications)

Supplementary Table 20. Effects of typical antipsychotics on cortical surface area in adults (all BD patients, controlling for all other medications)

Supplementary Table 21. Effects of atypical antipsychotics on cortical thickness in adults (all BD patients, controlling for all other medications)

Supplementary Table 22. Effects of atypical antipsychotics on cortical surface area in adults (all BD patients, controlling for all other medications)

Supplementary Table 23. Effects of antidepressants on cortical thickness in adults (all BD patients, controlling for all other medications)

Supplementary Table 24. Effects of antidepressants on cortical surface area in adults (all BD patients, controlling for all other medications)

Supplementary Table 25. Effects of a history of psychosis on cortical thickness in adults

Supplementary Table 26. Effects of a history of psychosis on cortical surface area in adults

Supplementary Table 27. Effects of mood state at time of scanning (euthymic vs depressed) on cortical thickness in adults

Supplementary Table 28. Effects of mood state at time of scanning (euthymic vs depressed) on cortical surface area in adults

Supplementary Table 29. Cortical thickness differences in adolescents <25 years old (all BD patients compared to controls)

Supplementary Table 30. Cortical surface area differences in adolescents <25 years old (all BD patients compared to controls)

Supplementary Table 31. Cortical surface area differences in adolescents without controlling for ICV (all BD patients compared to controls)

Supplementary Table 32. Sex-by-Diagnosis interaction on cortical thickness differences in adolescents <25 years old (all BD patients compared to controls)

Supplementary Table 33. Sex-by-Diagnosis interaction on cortical surface area differences in adolescents <25 years old (all BD patients compared to controls)

Supplementary Table 34. Age-by-Diagnosis interaction on cortical thickness differences in adolescents <25 years old (all BD patients compared to controls)

Supplementary Table 35. Age-by-Diagnosis interaction on cortical surface area differences in adolescents <25 years old (all BD patients compared to controls)

Supplementary Table 36. Cortical thickness differences in adolescents <25 years old (BD type-1 patients compared to BD type-2)

Supplementary Table 37. Cortical surface area differences in adolescents <25 years old (BD type-1 patients compared to BD type-2)

Supplementary Table 38. Illness duration on cortical thickness in adolescents <25 years old (all BD patients)

Supplementary Table 39. Illness duration on cortical surface area in adolescents <25 years old (all BD patients)

Supplementary Table 40. Effects of lithium on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 41. Effects of lithium on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 42. Effects of antiepileptics on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 43. Effects of antiepileptics on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 44. Effects of typical antipsychotics on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 45. Effects of typical antipsychotics on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 46. Effects of atypical antipsychotics on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 47. Effects of atypical antipsychotics on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 48. Effects of antidepressants on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 49. Effects of antidepressants on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

Supplementary Table 50. Effects of a history of psychosis on cortical thickness in adolescents <25 years old

Supplementary Table 51. Effects a history of psychosis on cortical surface area in adolescents <25 years old

Supplementary Table 52. Effects of mood state at time of scanning (euthymic vs depressed) on cortical thickness in adolescents <25 years old

Supplementary Table 53. Effects of mood state at time of scanning (euthymic vs depressed) on cortical surface area in adolescents <25 years old

Supplementary Table 54. Effects of voxel volume on cortical thickness effect size estimates in adults

Supplementary Table 55. Effects of voxel volume on cortical surface area effect size estimates in adults

Supplementary Table 56. Effects of voxel volume on cortical thickness effect size estimates in adolescents <25 years old

Supplementary Table 57. Effects of voxel volume on cortical surface area effect size estimates in adolescents <25 years old

Supplementary Note 1. Detailed breakdown of findings in adolescent samples including an examination of diagnosis subtype, duration of illness, medication effects, history of psychosis, and mood state at time of scanning.

No significant cortical thickness or surface area differences in BD subtypes of adolescents

We compared 214 adolescent patients diagnosed with BD type-1 with 90 adolescent patients diagnosed with BD type-2 and did not find significant differences in cortical thickness or surface area associated with subtype. Fully tabulated results are available in **Table S36 and S37**.

Association of duration of illness on cortical thickness and surface area in adolescents

In the full model, which tested association of illness duration in 205 adolescent BD patients and found one region with increased cortical thickness (left lingual gyrus $d = 0.237$; $P = 0.00139$). We did not detect significant differences in surface area for any region of interest. Fully tabulated results for duration of illness effects on cortical thickness see **Table S38** and surface area see **Table S39**.

Significant differences in cortical thickness and surface area associated with commonly prescribed medications in adolescents with bipolar disorder

We assessed cortical thickness and surface area differences associated with five major medication families as specified previously in adolescent patients with bipolar disorder. We found significant evidence of higher cortical thickness associated with taking lithium ($n=76$ compared to patients not taking lithium $n=251$) with the strongest effects in the left cuneus ($d = 0.591$; $P = 3.42 \times 10^{-5}$). Fully tabulated results for the association of lithium with cortical thickness are available in **Table S40**. We did not detect significant differences in cortical surface area associated with lithium (**Table S41**).

We found significant evidence of lower cortical thickness associated with antiepileptic treatment ($n=97$ compared to patients not taking antiepileptics $n=227$) with the largest effect in the left precuneus ($d = -0.706$; $P = 1.05 \times 10^{-7}$). Fully tabulated results for the association of antiepileptics with cortical thickness are available in **Table S42**. We did not detect significant differences in cortical surface area associated with antiepileptic treatment (**Table S43**).

We found significant evidence of higher cortical surface area associated with taking typical antipsychotics ($n=13$ compared to patients not taking typical antipsychotics $n=308$) in the isthmus of the cingulate gyrus ($d = 1.07$; $P = 4.61 \times 10^{-4}$). Fully tabulated results for the association of typical antipsychotics with cortical surface area are available in **Table S45**. We did not detect significant differences in cortical thickness associated with antipsychotic treatment (**Table S44**).

When assessing the effects of atypical antipsychotics (n=101 compared to patients not taking atypical antipsychotics n=221) we found evidence of reduced thickness in the right insula ($d = -0.406$; $P = 0.00167$). We did not detect significant differences in cortical surface area (**Table S46 and S47**).

When assessing the effects of antidepressants (n=83 compared to patients not taking antidepressants n=238) we did not detect significant differences in cortical thickness or surface area (**Table S48 and S49**).

Association of cortical thickness and surface area with history of psychosis and mood state at time of scanning in adolescents

When comparing 104 adolescent BD patients with a history of psychosis with 143 patients without a history of psychosis we found evidence of reduced surface area in the left inferior temporal gyrus ($d = -0.489$; $P = 0.000513$) and right caudal anterior cingulate cortex ($d = -0.433$; $P = 0.00204$). We did not detect differences in cortical thickness (**Table S50 and S51**). Further, we did not detect differences in cortical thickness or surface area when comparing patients that were depressed at the time of scanning (n=53) with patients that were euthymic at time of scanning (n=133) (**Table S52 and S53**). Comparisons with other mood states such as hypomanic, manic, and mixed were not possible due to small sample sizes.

Supplementary Note 2. Cortical thickness and surface area estimates are not biased by imaging parameter differences.

We did not detect differences in cortical thickness and surface area measures in adults or adolescents associated with field strength or FreeSurfer version, both factors were very highly correlated with site and the models did not converge. Further, we did not detect differences in cortical thickness and surface area associated with voxel volume (**Table S54-57**).

Supplementary Table 1. ENIGMA - Bipolar Disorder Working Group Demographics. Age (in years), sex, and case-control breakdown for participating sites.

	Mean Age (SD) CTL	Mean Age (SD) BD	Mean AOO (SD)	# Female CTL	# Female BD	# CTL	# BD	# BD type-2	Total N
Amsterdam	39.97 (10.34)	41.61 (10.79)	22.67 (8.56)	25	22	35	36	16	71
Barcelona	41.33 (9.55)	41.71 (9.36)	25.81 (8.6)	62	57	117	102	0	219
BFS	40.47 (9.93)	44.44 (7.53)	23.38 (8.17)	23	21	44	41	0	85
Cardiff	38.05 (9.47)	40.06 (8.63)	18.96 (7.02)	37	53	56	79	45	135
CIAM - South Africa	26.47 (4.83)	29.64 (4.91)	22.04 (4.39)	14	12	32	28	0	60
CLING	25.18 (5.28)	40.61 (10.46)	26.66 (9.74)	191	23	323	38	1	361
HMS	39.56 (12.17)	43.24 (12.2)	28.57 (9.56)	34	20	55	41	0	96
Houston	22.01 (14.13)	26.08 (13.83)	16.13 (7)	54	82	95	140	39	235
IGSLi/Halifax	34.9 (12.72)	46.97 (12.6)	23.7 (8.61)	54	71	90	116	37	206
KCL	41.17 (14.04)	42.12 (14.75)	25.96 (11.28)	16	17	23	26	3	49
Malt-Oslo	31.18 (9.12)	34.36 (7.31)	15.98 (5.8)	26	32	44	44	44	88
MSSM	34.45 (12.75)	42.41 (11.46)	23.75 (8.18)	19	21	38	34	0	72
Muenster	35.2 (12.07)	38.22 (11.83)	26.17 (8.81)	424	28	752	54	0	806
NIMH	-	40.35 (13.61)	-	0	25	0	34	23	34
NUIG	36.43 (11.45)	40.12 (10.48)	28.23 (8.11)	39	37	96	74	0	170
Olin	36.04 (12.99)	36.19 (14.04)	-	365	117	607	195	0	802
Oxford/Newcastle	33.4 (12.55)	33.57 (12.68)	24.98 (6.86)	57	54	120	111	35	231
Paris	35.96 (11.94)	37.69 (12.55)	22.64 (8.1)	33	13	56	37	8	93
Pittsburgh	32.29 (6.18)	33.03 (8.7)	18.26 (6.26)	19	56	31	74	0	105
Sao Paulo 1	26.88 (5.53)	29.15 (6.3)	23.7 (7.53)	22	30	66	47	24	113
Sao Paulo 2	27.99 (7.38)	32.53 (8.56)	25.3 (5.78)	38	79	74	118	12	192
Sao Paulo 3	30.06 (8.1)	28.18 (8.66)	27.77 (8.75)	34	13	85	22	0	107
SBP	38.82 (14.65)	39.82 (12.19)	20.77 (9.91)	44	88	85	140	59	225
Sydney	22.58 (3.73)	25 (3.71)	15.1 (3.62)	51	34	92	50	22	142
TOP	34.84 (9.73)	34.85 (11.64)	21.99 (9.31)	144	112	303	192	62	495
Tulsa	32.37 (10.08)	38.26 (11.68)	-	56	56	91	70	0	161
UCLA-BP	49.8 (16.4)	49.3 (13.4)	24.9 (13.9)	203	90	374	153	16	527
UCT	30.20 (5.30)	37.73 (8.15)	19.48 (6.02)	13	29	17	34	3	51

UMCU	44.72 (14.59)	47.67 (12.27)	30.24 (10.83)	85	132	167	259	0	426
UPENN	37.42 (14.25)	30.03 (10.3)	19.16 (8.56)	44	36	88	58	7	146
Total						4056	2447		6503

Supplementary Table 2. Diagnosis and medication information.

Sample	Instrument for diagnosing BP	Method for obtaining medication information
Amsterdam	SCID	Patient interview, plus information from the treating clinical psychiatrist (if available), plus hospital records if available
Barcelona	Structured Clinical Interview for DSM-IV and Research Diagnostic Criteria (RDC).	Detailed clinical interview and review of case notes.
BFS	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Patient interview
Cardiff	Consensus Consultant Diagnosis and Mini International Neuropsychiatric Interview (MINI)	Patient interview
CIAM (South Africa)	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Patient interview and Hospital records
CLING	All patients met the diagnostic criteria for BD, type 1 or 2, according to ICD-10 and DSM-IV classification standards. Diagnoses were consented within members of the study group and the treating clinical psychiatrist.	Patient interview, plus information from the treating clinical psychiatrist (if available)
HMS	The diagnosis of bipolar I disorder was confirmed by using the German version of the Structural Clinical Interview for DSM-IV.	Patient interview, plus information from the treating clinical psychiatrist (if available)
Houston	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Patient interview, plus information from the treating clinical psychiatrist (if available)
IGSLi/Halifax	Structured Clinical Interview for DSM-IV for Axis I Diagnoses; (Halifax): Participants were recruited from patients followed up at a specialized Mood Disorders Program at Dalhousie University, Halifax, NS. The Program is a tertiary care clinic providing consultation services to family physicians and community psychiatrists and following up patients with BD. The diagnostic interviews were performed by pairs of clinicians, according to the Schedule for Affective Disorders and Schizophrenia, Lifetime version (SADS-L) (Endicott and Spitzer 1978) and diagnoses were made according to DSM-IV criteria.	Questionnaire with self and interviewer reporting, in part using validated instruments; (Halifax): Patients had regular follow ups at the clinic, including monitoring of Li levels at least twice per year. Furthermore, we established illness course and treatment response to Li using NIMH life charts (NIMH-LCMTM) (Roy-Byrne et al. 1985).
KCL	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Patient interview
Malt-Oslo	Mini-International Neuropsychiatric Interview (MINI), DSM-IV criteria version 5.0.	Stanley Foundation Network Entry Questionnaire (NEQ).
MSSM	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Self-report and clinical notes

Muenster	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	self-report and hospital records
NIMH	Structured Clinical Interview for DSM-IV-TR and unstructures psychiatric interview	patient interview
NUIG	Structured Clinical Interview for DSMIV-TR-Patient Edition for patients and SCID_NP for controls	Detailed clinical interview outlining dose and duration of all psychotropic medication, supplemented by clinical notes where necessary.
Olin	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Medication information was obtained using a standardized interview checklist.
Oxford/Newcastle	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Combined information from subjects & (for patients) checks with medical records/with treating teams
Paris	Diagnostic Interview for Genetic Studies	(1) Open question: which medication are you taking? (2) hospital records (for inpatients)
Pittsburgh	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Medication information was obtained using a standardized interview checklist.
Sao Paolo (all sites)	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Self-report and clinical records
SBP	The clinical assessment instrument used in SBP was a Swedish version of the Affective Disorder Evaluation [1]. In addition, a structured psychiatric interview (M.I.N.I. International Neuropsychiatric Interview) covering other psychiatric diagnoses was completed.	Information regarding medication was obtained using the Swedish version of the Affective Disorder Evaluation, covering current and past treatment with psychotropic drugs.
Sydney	Diagnostic Interview for Genetic Studies (for 22-30 year-olds); Kiddie-SADS (for 12-21 year-olds)	Patient interview and Adult Health Screening questionnaire
TOP	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	(1) Blood sample (serum levels) (2) Open question: which medication are you taking? (3) hospital records (for inpatients)
Tulsa	Structured Clinical Interview for DSM-IV for Axis I Diagnoses-TR	Patient interview
UCLA-BP	Diagnostic Interview for Genetics Studies (DIGS)/Mini International Neuropsychiatric Interview (MINI)	Medication history form, obtained from subject at the time of DIGS interview
UCT	SCID DSM-IV for Axis 1 (cases) SCID- NP - controls	Interview
UMCU	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Two self-composed questionnaires; online before their visit to the UMCU and again during their visit after the SCID
UPENN	Structured Clinical Interview for DSM-IV for Axis I Diagnoses	Combination of self-report and clinician report

Supplementary Table 3. Inclusion and exclusion criteria used by each site.

Sample	Criteria for Inclusion/Exclusion
Amsterdam	<p>Inclusion criteria for BD-I/II subjects were: age 18-60 years; age at first mood episode ≤ 40 years; a history of at least two Major Depressive Episodes (MDEs); current MDE or remission (i.e. not fulfilling the criteria of MDE or (hypo)manic episode); and illness duration of ≥ 5 years since the first episode. Exclusion criteria for BD subjects were: current (hypo)mania; a current comorbid axis-I disorder (including any current substance use disorder; assessed by SCID-I) except for anxiety disorders; a diagnosis of cluster B personality disorder (assessed by SCID-II, if suspected based on (hetero)anamnestic information); current use of antidepressants, anticonvulsants, mood-stabilizers or antipsychotics (stopped at least 1 month before scanning); electroconvulsive therapy within 2 months before scanning. Incidental benzodiazepine use was allowed, but was stopped at least 1 day before scanning. BD subjects were excluded if (hypo)manic episodes solely appeared during the use of antidepressants, again to ensure inclusion of 'true' BD subjects; and in case of a Young Mania Rating Scale (YMRS) score > 8, to prevent inclusion of BD subjects with (subclinical) (hypo)manic symptoms. Inclusion criterion for HC was age 18-60 years. Exclusion criteria for HC were: presence of a lifetime psychiatric diagnosis (Axis I); first-degree relatives with a history of a psychiatric diagnosis (Axis I); use of any psychopharmacological agent.</p> <p>Furthermore, for all subjects contra-indications for MRI-scanning led to exclusion: a history of head trauma or neurological disease; severe general physical illness; claustrophobia or implanted metal objects.</p>
Barcelona	<p>All patients with bipolar disorder were right handed. Exclusion criteria were age younger than 18 or older than 65 years, history of neurological disease or brain trauma, and alcohol/substance abuse in the 12 months prior to participation. Patients were also required to have a current IQ in the normal range (> 70). All patients were diagnosed using DSM-IV and Research Diagnostic Criteria (RDC), based on a detailed clinical interview and review of case notes.</p> <p>All healthy controls met the same exclusion criteria as the patients, and they were interviewed and excluded if they reported a history of mental illness and/or treatment with psychotropic medication other than non-regular use of benzodiazepines or similar drugs for insomnia. They were also questioned about family history of mental illness and excluded if a first-degree relative had experienced symptoms consistent with major psychiatric disorder and/or had received any form of in- or outpatient psychiatric care.</p> <p>The healthy controls were selected to be matched with the patients on demographic variables and on premorbid IQ.</p>
BFS	<p>Exclusion criteria for both groups at initial recruitment included a personal history of major depression, mania or hypomania, psychosis, or any major neurological or psychiatric disorder, a history of substance dependence, learning disability, or any history of head injury that included loss of consciousness and any contraindications to MRI.</p>
Cardiff	<p>Inclusion criteria: age > 18, < 60; positive diagnosis of BD-I or BD-II; Euthymia (absence of any significant mood episode for 2 months prior scanning, unchanged drug treatment for the same period, and HAM-D and YMRS < 10 on day of scan); no personal history of psychotic disorders or Borderline Personality Disorder; < 1 year history of OH or substance abuse/dependence; no contraindications for MRI scan.</p>
CIAM (South Africa)	<p>Bipolar disorder participants were required to meet a diagnosis of bipolar I disorder with a significant history of psychosis. Between the ages of 19 and 40. Stable outpatients were recruited, and did not meet either mood polarity at the time of scanning. Were compatible for MRI and EEG imaging. Exclusion included history of epilepsy or seizures, which was an exclusion for EEG testing performed. Exclusion of any participants if presented with a significant/chronic general medication condition, e.g.. HIV, diabetes I/II, highblood pressure. Further for female participants no current/recent/suspected pregnancy or current lactation were allowed to participate.</p>

CLING	Patients had to meet the diagnostic criteria for BD, type 1, according to ICD-10 and DSM-IV classification standards. Diagnoses were consented within members of the study group and the treating clinical psychiatrist. The healthy controls exhibited no past or present psychiatric or neurological disorder and had no positive family history of psychiatric disorders. Exclusion criteria in general were lifetime diagnoses of substance dependence, substance abuse during the last month, cannabis abuse during the last 2 weeks, mental retardation, dementia, and neurological illnesses.
HMS	Diagnosis according to DSM-IV criteria was obtained using the German version of the Structural Clinical Interview for DSM-IV assessed by the study psychiatrists from the Psychiatry Unit at Saarland University Hospital and confirmed by the treating psychiatrist. Exclusion criteria for patients and controls were MRI contraindications, organic disorders of the central nervous system (e.g., infectious, toxic or cerebrovascular disease, traumatic brain injury and epilepsy) or mental retardation. Exclusion criteria for healthy controls were past or present psychiatric, neurological or medical disorder and a positive family history of psychiatric disorders.
Houston	The study was approved by the Institutional Review Board of The University of Texas Health Science Center at San Antonio. Healthy controls reporting current or past Axis I disorders, suicidal history and a first-degree relative with any Axis I disorder were excluded. Participants with any endocrinological disease, head trauma, neurological disease, and family history of any hereditary neurological disorder or medical conditions such as hypertension, diabetes, active liver disease and kidney problems were excluded from this study.

IGSLi/Halifax	<p>Inclusion criteria. The BD patients (both Li and non-Li groups) had to have: (i) a diagnosis of bipolar I or II disorder made by a psychiatrist using the SCID; (ii) at least 10 years of illness; (iii) a history of at least five episodes of illness (including manic, depressive, or mixed episodes); (iv) current Hamilton Depression Rating Scale, 17-item version (HAM-D-17) score < 7; (v) current Young Mania Rating Scale (YMRS) score < 5; (vi) current Clinical Global Impressions Scale–Bipolar (CGI-BP) score < 3; and (vii) a period of euthymia for at least four months prior to scanning, as aside from state-related factors, patients in acute episodes may present with additional difficult to control confounding variables, including recent medication change or substance abuse. The non-Li group had to have less than three months of lifetime Li exposure, more than 24 months prior to the scanning. The Li group had to have a current Li treatment lasting a minimum of 24 months. Exclusion criteria. Individuals from any of the three groups were excluded if they met any of the magnetic resonance imaging (MRI) exclusion criteria or had any serious medical illness (e.g., brain injury, Cushings disease, or conditions treated with corticosteroids). Individuals with BD were excluded if they had: (i) more than one lifetime course of electroconvulsive therapy (ECT) or ECT in the previous 12 months; (ii) comorbid psychiatric disorders, and /or personality disorder; (iii) active substance abuse in the previous 12 months; (iv) significant change in their medication in the previous three months; or (v) current psychotic features or acute suicidality. Individuals from the non-Li group were excluded if they had: (i) Li exposure < 2 years before the scanning; or (ii) lifetime Li exposure of more than three months. The neuropsychiatrically healthy individuals were excluded if they had a personal history of psychiatric disorders. (Halifax) Diabetes Study: The subjects with BD were required to 1) have the diagnosis of bipolar I or II disorder made by a psychiatrist; and 2) be at least 18 years of age. Patients were excluded if they had 1) the diagnosis of organic mood disorder; 2) mood disorder not otherwise specified; or 3) more than one lifetime course of electroconvulsive therapy or electroconvulsive therapy within the last 6 months. The neuropsychiatrically healthy, euglycemic subjects were excluded if they had 1) a personal history of psychiatric disorders; or 2) T2DM. Subjects from any group were excluded if they 1) met any magnetic resonance imaging (MRI) exclusion criteria; 2) suffered from substance abuse in the last 12 months; had a history of 3) neurodegenerative disorders; or 4) cerebrovascular disease/stroke, as we were interested in the more subtle T2DM-related neuronal changes. Halifax High Risk Study: Families were identified through adult probands with BD, who had participated in 1) previous genetic and high-risk studies for the Halifax sample. Only the offspring from these families, not the probands, were a part of the MRI study. The offspring from BD parents were divided into two subgroups: 1) the Unaffected HR group, which consisted of 50 offspring with no lifetime history of psychiatric disorders. These individuals were at an increased risk for BD because they had one parent affected with a primary mood disorder. 2) The Affected Familial group, which consisted of 36 offspring who met criteria for a lifetime Axis I diagnosis of mood disorders (i.e., a personal history of at least one episode of depression, hypomania, or mania meeting full DSM-IV criteria). When available, we recruited more than one offspring per family. From this study, we provided data only from patients who had a personal history of bipolar disorder.</p>
KCL	<p>Patients were included if they fulfilled criteria for DSM-IV bipolar disorder and did not have any comorbidity for other DSM-IV Axis-I disorders. Healthy controls subjects were chosen in order to match bipolar patients for age, sex, race, weight, height, handedness, premorbid IQ, years of education, lifetime drug and alcohol use. They were included if they had no DSM-IV Axis I disorder and no family history of psychiatric conditions.</p>
Malt-Oslo	<p>Inclusion criteria patients: A DSM-IV diagnosis of bipolar disorder type II. Exclusion criteria healthy controls: Controls with previous or current psychiatric illness were excluded from the study. The exclusion criteria for all participants were: A.) age younger than 18 or older than 50 years; B.) previous head injury with loss of consciousness for more than 1 minute; C.) history of neurological or other severe chronic somatic disorder; D.) pregnancy; E.) metallic implants.</p>

MSSM	<p>Patients were identified by clinicians' referrals and were included if they (a) were aged between 17-65 years (b) fulfilled Diagnostic and Statistical Manual of Mental Disorders, 4th edition, revised (DSM-IV) criteria for Bipolar Disorder, type I (BD-I), (c) had at least one first degree relative unaffected by BD and (d) no family history (up to second degree) of schizophrenia or schizophrenia spectrum disorders. Healthy volunteers were recruited through advertisement in the local press and were enrolled if they were (a) aged 17-65 years and (b) had no personal or family history of any Axis I or II DSM-IV disorder. Exclusion criteria for the entire sample included (a) head trauma resulting in loss of consciousness, (b) personal history of neurological or medical disorders, (c) family history of hereditary neurological disorders and (d) fulfilling DSM-IV criteria for lifetime drug or alcohol dependence and drug or alcohol abuse in the preceding six months.</p>
Muenster	<p>Inclusion criteria: age 17-65 years; patients were diagnosed of bipolar I disorder by SCID-Interview, currently depressed (HAMD \geq 18); Exclusion criteria all: any MRI contraindications; Exclusion criteria controls: any current or former psychiatric disorder; Exclusion criteria patients: any neurological abnormalities, substance-related disorders or current benzodiazepine treatment (wash out of at least three half-lives before study participation), and former electroconvulsive therapy</p>
NIMH	<p>DSM-IV-TR diagnosis of either BD type I or BD type II. No current alcohol or substance abuse or dependence, no major medical illness. All subjects were in a current major depressive episode, with no psychotic features.</p>
NUIG	<p>Inclusion criteria: DSM-IV diagnosis of bipolar disorder (patients); age >18 and <60. Exclusion criteria: history of neurological illness (comorbid); lifetime DSM-IV axis 1 disorder or family history of psychotic or affective disorder in first- or second-degree relatives (controls); history of substance and/or alcohol misuse in the past year; learning disability; recent oral steroid use.</p>
Olin	<p>(Study 1) Patients were identified through outpatient clinics and community mental health facilities in the Hartford area. Inclusion criteria for patients were age between 18 and 70 years, diagnosis of bipolar I disorder as determined by the Structured Clinical Interview for DSM-IV (SCID), and no first degree relatives with a bipolar disorder diagnosis. Unrelated healthy comparison subjects were included if they had no lifetime history of axis I psychiatric disorder as assessed by the SCID and no family history of mood or psychotic disorders. Participants were excluded for alcohol or drug abuse or dependence within the past 6 months, a history of major medical or neurological disorders, or IQ <70 as assessed by the WAIS. In patients, euthymia was established with the Hamilton Depression Rating Scale (HAM-D), the Young Mania Rating Scale, the Brief Psychiatric Rating Scale (BPRS), and through diagnostic case reviews.</p> <p>(Study 2) Inclusion criteria: ages 15-65 years; proficiency in English at the sixth-grade level or higher; no significant neurologic disorders including those secondary to head injury; no history of substance abuse within the last month or substance dependence within the last 6 months; and negative urine toxicology screening results on the day of testing. The healthy controls met the following additional criteria: no personal or family history (first degree) of psychotic or bipolar disorders; no personal history of recurrent mood disorder; no lifetime history of substance dependence; and no history of any significant cluster A Axis II personality features defined by meeting full criteria or within 1 criterion of a cluster A diagnosis using the Structured Interview for DSM-IV Personality.</p>

Oxford/Newcastle	<p>(Newcastle) All subjects must have English as a first language and be between 16 and 50 years old and a DSM-IV diagnosis of bipolar disorder. Exclusion criteria: issues of MRI compatibility eg, no pacemakers; history of neurological disturbance (epilepsy, brain illness, brain surgery).</p> <p>(CAFLIP) General exclusion criteria: Mini Mental State Examination score <28, abused alcohol or drugs within six months as defined in the SCID and by a score of < 8 on the Alcohol Use Disorders Identification Test (AUDIT) questionnaire. Patient exclusion criteria were score of > 7 on either the 17-item Hamilton Depression Rating Scale (HAM-D) or the Young Mania Rating Scale (YMRS) at initial assessment or one month later at scanning, history of other Axis I or II conditions, learning disability, electroconvulsive therapy within one year, neurological disorder, systemic illness with potential cerebral consequences, hypertension (blood pressure > 150/100 mmHg or antihypertensive drugs) and endocrine disorders (excluding corrected hypothyroidism). Exclusion criteria for controls were similar with additional requirements of no current or previous Axis I or II psychiatric diagnosis, no psychiatric history in first-degree relatives, and no medication other than oral contraceptives.</p> <p>(Oxford Sites 3 and 4) Inclusion criteria: Diagnosis of Bipolar Disorder, Type II, NOS. Male and female; ages 18-70. Score of ≤ 8 on both the HAMD and YMRS. Exclusion criteria: Other current Axis I DSM-IV-TR disorders (e.g. schizophrenia, drug/alcohol abuse/dependence, unipolar depression, etc). Participants with head injuries, previous history of stroke, brain damage, or neurological illnesses. Contraindication to MRI: claustrophobia, cardiac pacemakers, metal surgical clips or pins, metal in eyes or other body parts where it cannot be removed, piercings, tattoos, transdermal patches, etc. Unstable medical illness. Women of child bearing potential who are pregnant or planning to become pregnant during the course of the study (NA for men). Also current psychotropic medication was an exclusion criteria.</p>
Paris	<p>Inclusion criteria for study participation were ages between 18 and 65, no history of alcohol or drug abuse/dependence, no history of mental retardation, no previous head trauma with loss of consciousness, and no current or past cardiac or neurological disease. We excluded subjects with any significant cerebral anatomic anomaly. In addition, HC were free of any personal past or present personal psychiatric disorder and first-degree family history of schizophrenia, schizoaffective disorder or BD. Participants were not included for MRI if MRI was contraindicated or if pregnant.</p>
Pittsburgh	<p>Inclusion criteria: Euthymic individuals with BP I disorder (diagnosed according to the criteria of DSM-IV (APA, 1994) and Bipolar I section of the SCID (First et al., 1994): right-handed; HRSD-25 score of equal or less than 7 on the 17 item portion and YMRS less than or equal to 10; meets criteria for being euthymic; Individuals with BP disorder currently in depressed episode (diagnosed according to the criteria of DSM-IV and SCID criteria): right-handed; not currently in a manic, hypomanic or mixed episode; Healthy controls: no previous psychiatric history; right-handed; HRSD-25 score of equal or less than 7 on the 17 item portion and a YMRS score of equal or less than 10; No first degree relatives with diagnosed psychiatric disorders. Exclusion criteria: history of head injury or neurological illness; Mini-Mental State Exame <24; IQ <85 assessed with NART; Visual disturbance (<20/40 corred); current dependence on alcohol or drug use; contraindication for MRI; pregnancy; lack of English proficiency.</p>
Sao Paolo #1	<p>Treatment-naive individuals fulfilling DSM-IV criteria for BD type I or II, at any phase of the illness. Healthy controls were free of any mental disorder and had no history of mood or psychotic disorders among first-degree relatives. Other inclusion/ exclusion criteria for both study groups: Aged between 18 - 45 years; Free of substance use disorders (lifetime); Right-handed; Absence of neurological disorders or any organic disorders that could affect the central nervous system, No history of head trauma with loss of consciousness; No contraindication for MRI scanning.</p>
Sao Paolo #2	<p>Here we combined 3 different samples (3 separate studies) acquired in the same MRI scanner. The combined inclusion/ exclusion criteria are: Patients fulfilling DSM-IV criteria for BD subtypes I or II, free of active substance use disorders during the past 6 months and either in remission or acutely depressed. Healthy controls were free of any mental disorder and had no history of mood or psychotic disorders among first-degree relatives. Other inclusion/ exclusion criteria for both study groups: Aged between 18 - 55 years; Absence of neurological disorders or any organic disorders that could affect the central nervous system, No history of head trauma with loss of consciousness; No contraindication for MRI scanning.</p>

Sao Paolo #3	Part of a broader investigation on the incidence of psychotic disorders in Sao Paulo city. Initially, subjects with a diagnosis of a first episode of a functional psychosis according to DSM-IV criteria (295–298 psychotic codes) were identified, including cases of psychotic BD (all with type I subtype). Next-door neighbors of the patients were actively searched by an epidemiological team in order to form a group of geographically-matched controls. Psychiatric diagnosis and clinical status were re-assessed after 1 year of follow-up in order to ensure diagnostic stability. Other inclusion/ exclusion criteria for both study groups: Aged between 18 - 50 years; Absence of neurological disorders or any organic disorders that could affect the central nervous system, No history of head trauma with loss of consciousness; No contraindication for MRI scanning.
SBP	The general criteria for inclusion were patients at least 18 years old and who met the DSM-IV criteria for any bipolar disorder, ie, type I, II, NOS (not otherwise specified), cyclothymia, or schizoaffective syndrome manic type. Subjects were excluded if they had a history of alcohol abuse, neurological disorders (other than mild migraine), untreated endocrinological disorders, pregnancy, dementia, recurrent depressive disorder, suspected severe personality disorder, or family history of schizophrenia or bipolar disorder (in a first degree relative).
Sydney	Bipolar disorder participants meet DSM-IV criteria for either bipolar I or bipolar II disorder. Control participants meet criteria if no parent or sibling had bipolar I or II disorder, recurrent major depression, schizoaffective disorder, schizophrenia, recurrent substance abuse or any past psychiatric hospitalisation; and no parent with a first degree relative had a past mood disorder hospitalisation or history of psychosis. All subjects in are aged between 12 and 30 years. For those aged between 12 and 21 an adapted version of the Schedule for Affective Disorders and Schizophrenia for School-Age Children – Present and Lifetime Version (K-SADS-BP) was developed specifically for use in the US-Australia collaborative study of young people at genetic risk for BD (Nurnberger Jr. et al., 2011). For participants aged between 22 and 30 the DIGS (Version 4) is used to measure the current and lifetime presence of axis I DSM-IV disorders.
TOP	Inclusion criteria: Patients with bipolar spectrum disorder between ages 18-65 recruited from psychiatric departments and outpatient clinics in Oslo as part of the Thematically Organized Psychosis (TOP) Research study. Exclusion criteria were: IQ < 70, a condition better accounted for by substance abuse or somatic illness, having a brain illness or a previous moderate/severe head injury. General: All participants signed a written informed consent. The study was approved by the Regional Committee for Medical Research Ethics and the Norwegian Data Inspectorate, and conducted in accordance with the Helsinki declaration.
Tulsa	Bipolar disorder participants met DSM-IV criteria for either bipolar I or bipolar II disorder, or BD NOS. Age 18-55. The unmedicated BD group did not receive any psychotropic medications for at least 3 weeks (8 for fluoxetine) prior to the MRI scanning. The healthy control individuals met the same exclusion criteria except that they had no personal or family (first-degree relatives) history of psychiatric illness assessed using the Structured Clinical Interview for the DSM-IV-TR and the Family Interview for Genetic Studies (FIGS). Exclusion criteria were as follows: serious suicidal ideation or behavior; medical conditions or concomitant medications likely to influence CNS or immunological function including cardiovascular, respiratory, endocrine and neurological diseases; a history of drug or alcohol abuse within 6 months or a history of drug or alcohol dependence within 1 year (DSM-IV-TR criteria), and general MRI exclusion criteria such as magnetic implants or claustrophobia.
UCLA-BP	To establish DSM-IV diagnoses, we used a best-estimate process modified from previous procedures (Freimer et al., 1996) and including diagnostic interviews using Spanish versions of the Mini International Neuropsychiatric Interview and the Diagnostic Interview for Genetics Studies. Individuals designated as having BP-I had a best-estimate diagnosis of BP-I, unipolar mania, or schizoaffective disorder, bipolar type. The Young Mania Rating Scale and the 17-item Hamilton Depression Rating Scale were administered at the time of assessment and identified individuals with significant mood symptoms (Young Mania Rating Scale Score >14 or Hamilton Depression Rating Scale score >14), whom we excluded from analyses of temperament and neurocognitive measures.

UCT	Patients with DSM IV diagnosis of Bipolar Disorder Type 1 or Type 2, clinically stable with YMRS score <15 and Hospital Anxiety and Depression D subscale score <15 . Controls - no history of Axis 1 disorder screened with SCID - NP. Ages 18-50.
UMCU	Patients with bipolar disorder: a diagnosis of BD-I according to the DSM IV, with at least one clinical intervention for mania (DSM-IV criteria). Healthy controls: no history of axis I psychiatric disorder (DSM-IV criteria) and no first degree relative with a history of specific axis I psychiatric disorder (DSM-IV criteria), on the basis of a FIGS interview with Age > 18 and Dutch ancestry (at least three of the four grandparents from the Netherlands). Exclusion criteria include: ferrous objects in or around the body (e.g. braces, glasses, pacemaker, metal fragments); Claustrophobia; Severe medical illness; current treatment or detention under the Dutch governmental mental health act.
UPENN	Inclusion criteria: DSM-IV diagnosis of bipolar disorder; clinically stable, without recent (< 2 week) clinically significant changes in medication type or dose. As long as they are clinically stable, patients may have active illness symptoms, including hallucinations, mood elevation, irritability, or depression. Patients deemed to be at elevated risk of self-harm or violence will be excluded from the study. Age >18 and <60, proficiency in English. Exclusion criteria: significant medical or neurological illness that may effect brain function or impede participation; substance abuse within 6 months of participation; developmental disorders or mental retardation; pregnancy; history of pathological gambling; no contraindications for MRI.

Supplementary Table 4. Image acquisition and processing details by site.

Site	Sequence	Field Strength	Acquisition Direction	# of Slices	Slice Gap	Voxel Size (mm3)	TI	TE	TR	Flip Angle	Citation	Segmentation
Amsterdam	3D T1-weighted turbo field echo (TFE)	3T scanner Philips Gyroscan Intera	coronal	182	0mm	1x1x1.2	0ms	4.6ms	9.621ms	8	1, 2	FreeSurfer (5.0)
Barcelona (Site 1: FIDMAG)	3D T1-weighted enhanced fast gradient echo (EFGRE3D)	1.5T GE Signa	Axial	180	0mm	0.47×0.47×1	710ms	3.93ms	2000ms	15	3, 4	FreeSurfer (5.3.0)
Barcelona (Site 2: Hospital Clinic)	3D T1-weighted enhanced fast gradient echo (EFGRE3D)	1.5T GE Signa	Axial	180	0mm	0.47×0.47×1	710ms	3.93ms	2000ms	15	5, 6	FreeSurfer (5.3.0)
BFS (Study 1)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T GE Signa	Coronal	180	0mm	1.25x1.25x1.2	500ms	4ms	500ms	8	-	FreeSurfer (5.1.0)
BFS (Study 2)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T GE Signa	Coronal	128	0mm	1.25x1.25x1.2	600ms	3.4ms	500ms	15	-	FreeSurfer (5.1.0)
Cardiff	3D T1-weighted fast spoiled gradient recall (3D FSPGR)	3T GE HDx	Axial	172	0mm	1x1x1	450ms	3ms	7.9ms	20	7	FreeSurfer (5.1.0)
CIAM (South Africa)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T Siemens Allegra	Sagittal	128	0mm	1.3×1.0×1.3	1100ms	1.53ms; 3.21ms; 4.89ms; 6.57ms	2530mm	7	8	FreeSurfer (5.3.0)

CLING	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T Siemens Tim Trio	Sagittal	176	0mm	1x1x1	900ms	3.26ms	2250ms	9	-	FreeSurfer (5.1.0)
HMS	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Sonata	Sagittal	176	0mm	1x1x1	700ms	3.42ms	1900ms	15	-	FreeSurfer (5.1.0)
Houston	3D T1-weighted spoiled gradient recalled acquisition in steady state	1.5T Philips Gyroscan Intera	Sagittal	144	1mm	1x1x1	220ms	5ms	24ms	40	9, 10, 11, 12	FreeSurfer (5.3.0)
IGSLi (Berlin)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Symphony Vision	Sagittal	160	0mm	1x1x1	1100ms	3.93ms	2280ms	15	-	FreeSurfer (5.0)
IGSLi (Dresden)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Sonata	Sagittal	160	0mm	1x1x1	1100ms	3.93ms	2280ms	15	-	FreeSurfer (5.0)
IGSLi (Halifax)	3D T1-weighted spoiled gradient recalled acquisition in steady state	1.5T GE Signa	Coronal	124	1.5mm	0.9375x0.9375x1.5	0ms	5ms	25ms	40	-	FreeSurfer (5.3.0)

IGSLi (Poznan)	3D T1-weighted spoiled gradient recalled acquisition in steady state	1T GE Signa	Sagittal	124	1.3mm	0.9766x0.9766x1.3	0ms	6ms	22ms	45	-	FreeSurfer (5.0)
IGSLi (Neunkirchen)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1T Siemens Magnetom Expert	Sagittal	112	1.5mm	0.9766x0.9766x1.5	500ms	4.4ms	1.1ms	15	-	FreeSurfer (5.0)
KCL	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Magnetom Vision	Axial	128	0mm	1.0x1.0x2.0	300ms	4ms	9.7ms	8	-	FreeSurfer (5.2.0)
Malt-Oslo	3D T1-weighted turbo field echo (TFE)	3T Philips Achieva	Sagittal	220	0mm	1x1x1	NA	2.3ms	8.4ms	7	13	FreeSurfer (5.1.0)
MSSM	3D T1-weighted spoiled gradient recalled acquisition in steady state	1.5T GE Signa	Axial	124	0mm	0.9375x0.9375x1.5	450ms	18ms	5.1ms	20	14, 15	FreeSurfer (5.3.0)
Muenster	3D fast gradient echo sequence	3T scanner Philips Gyroscan Intera	Coronal	320	0 mm	.5x.5x.5	814.5 ms	3.4 ms	7.4 ms	9	16	FreeSurfer (5.3.0)
NIMH - 1	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	GE 3T (Scanner A, older long bore)	Axial	124	0	0.86x0.86x1.2	725ms	2.7ms	6.9ms	6	-	FreeSurfer (5.3.0)

NIMH - 2	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	GE 3T (Scanner B, older long bore)	Axial	124	0	0.86x0.86x1.2	725ms	2.9ms	6.2ms	6	-	FreeSurfer (5.3.0)
NIMH - 3	3D T1-weighted fast spoiled gradient recall (3D FSPGR)	GE 3T (Scanner C, newer short bore)	Axial	124	0	0.86x0.86x1.2	450ms	2.7ms	6.9ms	12	-	FreeSurfer (5.3.0)
NIMH - 4	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	GE 3T (Scanner D, newer short bore)	Axial	124	0	0.94x0.94x1.2	725ms	2.7ms	7.2ms	12	-	FreeSurfer (5.3.0)
NIMH - 5	GE BRAVO - essentially a proprietary optimized version of MPRAGE	GE 3T (Scanner C, newer short bore)	Axial	124	0	0.86x0.86x1.2	725ms	2.7ms	6.9ms	6	-	FreeSurfer (5.3.0)
NIMH - 6	3D T1-weighted fast spoiled gradient recall (3D FSPGR)	GE 3T (Scanner B, older long bore)	Axial	176	0	1x1x1	450ms	3.5ms	8.8ms	13	-	FreeSurfer (5.3.0)
NUIG	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Magnetom	Axial	256	0mm	0.45x0.45x0.9	600ms	4.38ms	1140ms	15	17, 18	FreeSurfer (5.1.0)
Olin	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T Siemens Allegra	Sagittal	160	0mm	1x1x1.2	900ms	2.91ms	2300ms	9	19, 20	FreeSurfer (5.1.0)

Oxford (Newcastle)	3D T1-weighted fast spoiled gradient recall (3D FSPGR)	1.5T GE Signa	Coronal	120	0mm	0.78x0.78x1.7	650ms	4.2ms	12.4ms	15	21		FreeSurfer (5.3.0)
Oxford (Site 1)	3D T1-weighted fast low-angle shot	1.5T Siemens Sonata	Coronal	208	0mm	1x1x1	NA	5.6ms	12ms	19	21		FreeSurfer (5.3.0)
Oxford (Site 2)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T Siemens Trio	Axial	192	0mm	1x1x1	900ms	4.7ms	2040ms	8	21		FreeSurfer (5.3.0)
Paris	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T Siemens Tim Trio	Sagittal	160	0mm	1x1x1.1	900 ms	2.98ms	2300ms	9	22		FreeSurfer (5.3.0)
Pittsburgh	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T Siemens Trio	Axial	192	0mm	1x1x1	900ms	3.29ms	2200ms	9	-		FreeSurfer (4.4.0)
Sao Paolo - Site #1	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Espree	Sagittal	160	0mm	1.3 x 1.3 x 1.2	NA	3.65ms	2400ms	8	23		FreeSurfer (5.3.0)
Sao Paolo - Site #2	3D T1-weighted turbo field echo (TFE)	3T Philips Intera Achieva	Sagittal	180	0mm	1x1x1	900ms	3.2ms	7ms	8	24, 25		FreeSurfer (5.3.0)
Sao Paolo - Site #3	3D T1-weighted fast spoiled gradient recall (FSPGR)	1.5T GE Signa	Axial	124	0mm	0.86x0.86x1.5	NA	5.2ms	21.7ms	20	26		FreeSurfer (5.3.0)

SBP	3D T1-weighted spoiled gradient recalled acquisition in steady state	1.5T GE Signa HDtx	Coronal	116	0mm	0.7x0.7x1.8	NA	6ms	21ms	30	27, 28	FreeSurfer (5.3.0)
Sydney	3D T1-weighted turbo field echo (TFE)	3T Philips Achieva	Sagittal	180	1mm	1x1x1	NA	2.5ms	5.5ms	8	29	FreeSurfer (5.3.0)
TOP	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Sonata	Sagittal	160	0mm	1.33x0.94x1	1000ms	3.93ms	2730ms	7	30, 31, 32	FreeSurfer (4.5.0)
Tulsa	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T GE MR750 Discovery	Axial	186	0mm	0.938x0.938x0.9	725ms	2.01ms	6ms	8	-	FreeSurfer (5.3.0)
UCLA-BP (Costa Rica)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Siemens Magnetom Vision	Coronal	220	0mm	0.9766x0.9766x1	300ms	4.4ms	11.4ms	15	33	FreeSurfer (4.2.0)
UCLA-BP (Colombia)	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	1.5T Philips Gyroscan Intera	Sagittal	170	0mm	0.9375x0.9375x1	828ms	4.1ms	8.9ms	8	33	FreeSurfer (4.2.0)
UCT	3D T1-weight 3T Siemens Allegra		Sagittal	160	0mm	1x1x1	1100ms	3.93ms	2300ms	9	-	Freesurfer (5.3.0)

UMCU	3D T1-weighted turbo field echo (TFE)	3T Philips Achieva	Sagittal	200	0mm	0.75x0.75x0.8	NA	4.6ms	10ms	8	-	FreeSurfer (5.1.0)
UPenn	3D T1-weighted magnetization prepared rapid acquisition gradient echo (MPRAGE)	3T Siemens Tim Trio	Axial	200	0mm	0.9x0.9x1	1100ms	3.51ms	1810ms	8	34	FreeSurfer (5.0)

Supplementary Table 4 References

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Supplementary Table 5. Cortical surface area differences in adults (all BD patients compared to controls)

	Cohen's d (BD vs CTL)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.016	0.031	[-0.076 - 0.044]	-0.283	0.598	0.884	2580	1829
Left caudal anterior cingulate cortex	-0.023	0.031	[-0.083 - 0.036]	-0.518	0.444	0.824	2579	1835
Left caudal middle frontal gyrus	0.031	0.031	[-0.029 - 0.091]	0.533	0.316	0.745	2581	1837
Left cuneus	-0.035	0.031	[-0.095 - 0.025]	-0.574	0.252	0.693	2579	1834
Left entorhinal cortex	-0.008	0.031	[-0.068 - 0.052]	-0.177	0.791	0.958	2571	1803
Left fusiform gyrus	-0.079	0.031	[-0.138 - -0.019]	-1.163	0.011	0.142	2581	1835
Left inferior parietal cortex	-0.071	0.031	[-0.13 - -0.011]	-1.055	0.022	0.230	2579	1833
Left inferior temporal gyrus	-0.026	0.031	[-0.086 - 0.034]	-0.442	0.404	0.801	2577	1824
Left isthmus cingulate cortex	-0.014	0.031	[-0.074 - 0.046]	-0.263	0.646	0.909	2580	1835
Left lateral occipital cortex	-0.008	0.031	[-0.068 - 0.052]	-0.111	0.793	0.958	2579	1832
Left lateral orbitofrontal cortex	-0.067	0.031	[-0.127 - -0.007]	-0.883	0.029	0.273	2580	1834
Left lingual gyrus	-0.063	0.031	[-0.123 - -0.004]	-0.958	0.039	0.328	2580	1835
Left medial orbitofrontal cortex	-0.068	0.031	[-0.128 - -0.008]	-1.009	0.027	0.262	2574	1826
Left middle temporal gyrus	-0.017	0.031	[-0.077 - 0.043]	-0.256	0.573	0.874	2580	1829
Left parahippocampal gyrus	-0.053	0.031	[-0.113 - 0.007]	-0.850	0.084	0.473	2582	1820
Left paracentral lobule	0.014	0.031	[-0.046 - 0.074]	0.210	0.648	0.911	2580	1836
Left pars opercularis of inferior frontal gyrus	-0.020	0.031	[-0.08 - 0.04]	-0.325	0.520	0.847	2582	1837
Left pars orbitalis of inferior frontal gyrus	-0.087	0.031	[-0.147 - -0.027]	-1.252	0.005	0.083	2579	1837
Left pars triangularis of inferior frontal gyrus	-0.008	0.031	[-0.067 - 0.052]	-0.123	0.803	0.962	2581	1837
Left pericalcarine cortex	-0.014	0.031	[-0.074 - 0.046]	-0.262	0.640	0.906	2579	1834
Left postcentral gyrus	-0.051	0.031	[-0.111 - 0.009]	-0.638	0.098	0.505	2581	1830
Left posterior cingulate cortex	-0.057	0.031	[-0.117 - 0.003]	-0.954	0.063	0.407	2582	1836
Left precentral gyrus	-0.022	0.031	[-0.082 - 0.038]	-0.273	0.473	0.837	2581	1833
Left precuneus	-0.044	0.031	[-0.104 - 0.016]	-0.583	0.149	0.587	2581	1837
Left rostral anterior cingulate cortex	0.011	0.031	[-0.049 - 0.071]	0.232	0.718	0.931	2581	1834
Left rostral middle frontal gyrus	0.010	0.031	[-0.05 - 0.07]	0.143	0.751	0.942	2580	1837
Left superior frontal gyrus	-0.046	0.031	[-0.106 - 0.014]	-0.581	0.136	0.568	2580	1835

Left superior parietal cortex	0.003	0.031	[-0.057 - 0.062]	0.033	0.933	0.989	2579	1836
Left superior temporal gyrus	-0.022	0.031	[-0.082 - 0.038]	-0.275	0.478	0.839	2575	1827
Left supramarginal gyrus	-0.062	0.031	[-0.122 - -0.003]	-0.954	0.042	0.334	2579	1837
Left frontal pole	0.046	0.031	[-0.014 - 0.106]	0.818	0.134	0.566	2576	1836
Left temporal pole	0.009	0.031	[-0.051 - 0.07]	0.148	0.758	0.945	2573	1812
Left transverse temporal gyrus	-0.022	0.031	[-0.082 - 0.037]	-0.387	0.466	0.833	2581	1837
Left insula	-0.024	0.031	[-0.084 - 0.036]	-0.312	0.439	0.823	2579	1835
Right banks of superior temporal sulcus	-0.040	0.031	[-0.1 - 0.02]	-0.753	0.189	0.642	2575	1832
Right caudal anterior cingulate cortex	0.005	0.031	[-0.055 - 0.065]	0.112	0.868	0.981	2574	1833
Right caudal middle frontal gyrus	-0.018	0.031	[-0.078 - 0.042]	-0.338	0.551	0.863	2574	1834
Right cuneus	-0.035	0.031	[-0.095 - 0.025]	-0.532	0.259	0.701	2571	1833
Right entorhinal cortex	0.095	0.031	[0.034 - 0.155]	2.244	0.002	0.048	2566	1796
Right fusiform gyrus	-0.018	0.031	[-0.078 - 0.042]	-0.264	0.557	0.866	2571	1832
Right inferior parietal cortex	-0.088	0.031	[-0.148 - -0.028]	-1.327	0.004	0.076	2573	1835
Right inferior temporal gyrus	-0.024	0.031	[-0.084 - 0.036]	-0.419	0.429	0.821	2574	1828
Right isthmus cingulate cortex	0.004	0.031	[-0.056 - 0.064]	0.068	0.903	0.983	2573	1833
Right lateral occipital cortex	-0.010	0.031	[-0.07 - 0.05]	-0.138	0.750	0.942	2573	1833
Right lateral orbitofrontal cortex	-0.073	0.031	[-0.133 - -0.013]	-0.996	0.017	0.196	2573	1833
Right lingual gyrus	-0.052	0.031	[-0.112 - 0.008]	-0.771	0.091	0.487	2575	1835
Right medial orbitofrontal cortex	-0.045	0.031	[-0.105 - 0.015]	-0.615	0.143	0.577	2568	1823
Right middle temporal gyrus	-0.033	0.031	[-0.093 - 0.026]	-0.515	0.277	0.713	2572	1834
Right parahippocampal gyrus	-0.043	0.031	[-0.103 - 0.017]	-0.664	0.161	0.601	2572	1826
Right paracentral lobule	-0.012	0.031	[-0.072 - 0.048]	-0.192	0.695	0.926	2574	1833
Right pars opercularis of inferior frontal gyrus	-0.020	0.031	[-0.08 - 0.04]	-0.340	0.517	0.847	2574	1834
Right pars orbitalis of inferior frontal gyrus	-0.064	0.031	[-0.124 - -0.004]	-0.914	0.036	0.313	2572	1835
Right pars triangularis of inferior frontal gyrus	-0.014	0.031	[-0.074 - 0.046]	-0.238	0.654	0.913	2575	1834
Right pericalcarine cortex	-0.046	0.031	[-0.105 - 0.014]	-0.838	0.139	0.571	2575	1832
Right postcentral gyrus	0.004	0.031	[-0.056 - 0.064]	0.055	0.890	0.982	2571	1828
Right posterior cingulate cortex	0.020	0.031	[-0.04 - 0.08]	0.325	0.520	0.847	2574	1833
Right precentral gyrus	-0.028	0.031	[-0.088 - 0.032]	-0.342	0.370	0.783	2571	1830
Right precuneus	-0.013	0.031	[-0.073 - 0.047]	-0.178	0.664	0.916	2575	1835

Right rostral anterior cingulate cortex	-0.040	0.031	[-0.099 - 0.02]	-0.874	0.198	0.652	2572	1832
Right rostral middle frontal gyrus	-0.015	0.031	[-0.074 - 0.045]	-0.219	0.635	0.903	2573	1832
Right superior frontal gyrus	-0.031	0.031	[-0.091 - 0.029]	-0.408	0.314	0.743	2575	1833
Right superior parietal cortex	-0.026	0.031	[-0.086 - 0.034]	-0.320	0.399	0.798	2575	1835
Right superior temporal gyrus	-0.017	0.031	[-0.077 - 0.043]	-0.208	0.585	0.879	2566	1825
Right supramarginal gyrus	0.021	0.031	[-0.039 - 0.081]	0.319	0.500	0.843	2565	1827
Right frontal pole	0.014	0.031	[-0.046 - 0.073]	0.233	0.660	0.913	2569	1834
Right temporal pole	0.034	0.031	[-0.026 - 0.094]	0.537	0.273	0.710	2564	1810
Right transverse temporal gyrus	-0.021	0.031	[-0.081 - 0.039]	-0.385	0.492	0.843	2574	1834
Right insula	-0.055	0.031	[-0.115 - 0.005]	-0.760	0.074	0.439	2568	1832
Left hemisphere total surface area	-0.048	0.031	[-0.11 - 0.013]	-0.522	0.125	0.553	2512	1697
Right hemisphere total surface area	-0.043	0.031	[-0.105 - 0.018]	-0.470	0.172	0.615	2509	1697

Supplementary Table 6. Cortical surface area differences in adults without controlling for ICV (all BD patients compared to controls)

	Cohen's d (BD vs CTL noICV)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.016	0.031	[-0.076 - 0.044]	-0.283	0.598	0.884	2580	1829
Left caudal anterior cingulate cortex	-0.023	0.031	[-0.083 - 0.036]	-0.518	0.444	0.824	2579	1835
Left caudal middle frontal gyrus	0.031	0.031	[-0.029 - 0.091]	0.533	0.316	0.745	2581	1837
Left cuneus	-0.035	0.031	[-0.095 - 0.025]	-0.574	0.252	0.693	2579	1834
Left entorhinal cortex	-0.008	0.031	[-0.068 - 0.052]	-0.177	0.791	0.958	2571	1803
Left fusiform gyrus	-0.079	0.031	[-0.138 - -0.019]	-1.163	0.011	0.142	2581	1835
Left inferior parietal cortex	-0.071	0.031	[-0.13 - -0.011]	-1.055	0.022	0.230	2579	1833
Left inferior temporal gyrus	-0.026	0.031	[-0.086 - 0.034]	-0.442	0.404	0.801	2577	1824
Left isthmus cingulate cortex	-0.014	0.031	[-0.074 - 0.046]	-0.263	0.646	0.909	2580	1835
Left lateral occipital cortex	-0.008	0.031	[-0.068 - 0.052]	-0.111	0.793	0.958	2579	1832
Left lateral orbitofrontal cortex	-0.067	0.031	[-0.127 - -0.007]	-0.883	0.029	0.273	2580	1834
Left lingual gyrus	-0.063	0.031	[-0.123 - -0.004]	-0.958	0.039	0.328	2580	1835
Left medial orbitofrontal cortex	-0.068	0.031	[-0.128 - -0.008]	-1.009	0.027	0.262	2574	1826
Left middle temporal gyrus	-0.017	0.031	[-0.077 - 0.043]	-0.256	0.573	0.874	2580	1829
Left parahippocampal gyrus	-0.053	0.031	[-0.113 - 0.007]	-0.850	0.084	0.473	2582	1820
Left paracentral lobule	0.014	0.031	[-0.046 - 0.074]	0.210	0.648	0.911	2580	1836
Left pars opercularis of inferior frontal gyrus	-0.020	0.031	[-0.08 - 0.04]	-0.325	0.520	0.847	2582	1837
Left pars orbitalis of inferior frontal gyrus	-0.087	0.031	[-0.147 - -0.027]	-1.252	0.005	0.083	2579	1837
Left pars triangularis of inferior frontal gyrus	-0.008	0.031	[-0.067 - 0.052]	-0.123	0.803	0.962	2581	1837
Left pericalcarine cortex	-0.014	0.031	[-0.074 - 0.046]	-0.262	0.640	0.906	2579	1834
Left postcentral gyrus	-0.051	0.031	[-0.111 - 0.009]	-0.638	0.098	0.505	2581	1830
Left posterior cingulate cortex	-0.057	0.031	[-0.117 - 0.003]	-0.954	0.063	0.407	2582	1836
Left precentral gyrus	-0.022	0.031	[-0.082 - 0.038]	-0.273	0.473	0.837	2581	1833
Left precuneus	-0.044	0.031	[-0.104 - 0.016]	-0.583	0.149	0.587	2581	1837
Left rostral anterior cingulate cortex	0.011	0.031	[-0.049 - 0.071]	0.232	0.718	0.931	2581	1834
Left rostral middle frontal gyrus	0.010	0.031	[-0.05 - 0.07]	0.143	0.751	0.942	2580	1837

Left superior frontal gyrus	-0.046	0.031	[-0.106 - 0.014]	-0.581	0.136	0.568	2580	1835
Left superior parietal cortex	0.003	0.031	[-0.057 - 0.062]	0.033	0.933	0.989	2579	1836
Left superior temporal gyrus	-0.022	0.031	[-0.082 - 0.038]	-0.275	0.478	0.839	2575	1827
Left supramarginal gyrus	-0.062	0.031	[-0.122 - -0.003]	-0.954	0.042	0.334	2579	1837
Left frontal pole	0.046	0.031	[-0.014 - 0.106]	0.818	0.134	0.566	2576	1836
Left temporal pole	0.009	0.031	[-0.051 - 0.07]	0.148	0.758	0.945	2573	1812
Left transverse temporal gyrus	-0.022	0.031	[-0.082 - 0.037]	-0.387	0.466	0.833	2581	1837
Left insula	-0.024	0.031	[-0.084 - 0.036]	-0.312	0.439	0.823	2579	1835
Right banks of superior temporal sulcus	-0.040	0.031	[-0.1 - 0.02]	-0.753	0.189	0.642	2575	1832
Right caudal anterior cingulate cortex	0.005	0.031	[-0.055 - 0.065]	0.112	0.868	0.981	2574	1833
Right caudal middle frontal gyrus	-0.018	0.031	[-0.078 - 0.042]	-0.338	0.551	0.863	2574	1834
Right cuneus	-0.035	0.031	[-0.095 - 0.025]	-0.532	0.259	0.701	2571	1833
Right entorhinal cortex	0.095	0.031	[0.034 - 0.155]	2.244	0.002	0.048	2566	1796
Right fusiform gyrus	-0.018	0.031	[-0.078 - 0.042]	-0.264	0.557	0.866	2571	1832
Right inferior parietal cortex	-0.088	0.031	[-0.148 - -0.028]	-1.327	0.004	0.076	2573	1835
Right inferior temporal gyrus	-0.024	0.031	[-0.084 - 0.036]	-0.419	0.429	0.821	2574	1828
Right isthmus cingulate cortex	0.004	0.031	[-0.056 - 0.064]	0.068	0.903	0.983	2573	1833
Right lateral occipital cortex	-0.010	0.031	[-0.07 - 0.05]	-0.138	0.750	0.942	2573	1833
Right lateral orbitofrontal cortex	-0.073	0.031	[-0.133 - -0.013]	-0.996	0.017	0.196	2573	1833
Right lingual gyrus	-0.052	0.031	[-0.112 - 0.008]	-0.771	0.091	0.487	2575	1835
Right medial orbitofrontal cortex	-0.045	0.031	[-0.105 - 0.015]	-0.615	0.143	0.577	2568	1823
Right middle temporal gyrus	-0.033	0.031	[-0.093 - 0.026]	-0.515	0.277	0.713	2572	1834
Right parahippocampal gyrus	-0.043	0.031	[-0.103 - 0.017]	-0.664	0.161	0.601	2572	1826
Right paracentral lobule	-0.012	0.031	[-0.072 - 0.048]	-0.192	0.695	0.926	2574	1833
Right pars opercularis of inferior frontal gyrus	-0.020	0.031	[-0.08 - 0.04]	-0.340	0.517	0.847	2574	1834
Right pars orbitalis of inferior frontal gyrus	-0.064	0.031	[-0.124 - -0.004]	-0.914	0.036	0.313	2572	1835
Right pars triangularis of inferior frontal gyrus	-0.014	0.031	[-0.074 - 0.046]	-0.238	0.654	0.913	2575	1834
Right pericalcarine cortex	-0.046	0.031	[-0.105 - 0.014]	-0.838	0.139	0.571	2575	1832
Right postcentral gyrus	0.004	0.031	[-0.056 - 0.064]	0.055	0.890	0.982	2571	1828
Right posterior cingulate cortex	0.020	0.031	[-0.04 - 0.08]	0.325	0.520	0.847	2574	1833
Right precentral gyrus	-0.028	0.031	[-0.088 - 0.032]	-0.342	0.370	0.783	2571	1830

Right precuneus	-0.013	0.031	[-0.073 - 0.047]	-0.178	0.664	0.916	2575	1835
Right rostral anterior cingulate cortex	-0.040	0.031	[-0.099 - 0.02]	-0.874	0.198	0.652	2572	1832
Right rostral middle frontal gyrus	-0.015	0.031	[-0.074 - 0.045]	-0.219	0.635	0.903	2573	1832
Right superior frontal gyrus	-0.031	0.031	[-0.091 - 0.029]	-0.408	0.314	0.743	2575	1833
Right superior parietal cortex	-0.026	0.031	[-0.086 - 0.034]	-0.320	0.399	0.798	2575	1835
Right superior temporal gyrus	-0.017	0.031	[-0.077 - 0.043]	-0.208	0.585	0.879	2566	1825
Right supramarginal gyrus	0.021	0.031	[-0.039 - 0.081]	0.319	0.500	0.843	2565	1827
Right frontal pole	0.014	0.031	[-0.046 - 0.073]	0.233	0.660	0.913	2569	1834
Right temporal pole	0.034	0.031	[-0.026 - 0.094]	0.537	0.273	0.710	2564	1810
Right transverse temporal gyrus	-0.021	0.031	[-0.081 - 0.039]	-0.385	0.492	0.843	2574	1834
Right insula	-0.055	0.031	[-0.115 - 0.005]	-0.760	0.074	0.439	2568	1832
Left hemisphere total surface area	-0.048	0.031	[-0.11 - 0.013]	-0.522	0.125	0.553	2512	1697
Right hemisphere total surface area	-0.043	0.031	[-0.105 - 0.018]	-0.470	0.172	0.615	2509	1697

Supplementary Table 7. Sex-by-Diagnosis interaction on cortical thickness differences in adults (all BD patients compared to controls)

	Cohen's d (BD vs CTL SexXDxI)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.021	0.031	[-0.081 - 0.039]	-0.168	4.99E-01	8.43E-01	2579	1830
Left caudal anterior cingulate cortex	-0.002	0.031	[-0.062 - 0.058]	-0.020	9.50E-01	9.94E-01	2580	1836
Left caudal middle frontal gyrus	-0.031	0.031	[-0.091 - 0.029]	-0.243	3.09E-01	7.39E-01	2581	1835
Left cuneus	-0.028	0.031	[-0.088 - 0.032]	-0.261	3.65E-01	7.80E-01	2579	1835
Left entorhinal cortex	-0.004	0.031	[-0.064 - 0.057]	-0.049	9.07E-01	9.83E-01	2569	1803
Left fusiform gyrus	-0.054	0.031	[-0.114 - 0.006]	-0.484	7.78E-02	4.52E-01	2580	1835
Left inferior parietal cortex	-0.059	0.031	[-0.119 - 0.001]	-0.418	5.55E-02	3.85E-01	2580	1834
Left inferior temporal gyrus	-0.032	0.031	[-0.092 - 0.028]	-0.337	2.92E-01	7.22E-01	2576	1824
Left isthmus cingulate cortex	0.027	0.031	[-0.033 - 0.087]	0.242	3.81E-01	7.87E-01	2580	1836
Left lateral occipital cortex	-0.070	0.031	[-0.13 - -0.01]	-0.491	2.34E-02	2.45E-01	2577	1832
Left lateral orbitofrontal cortex	0.000	0.031	[-0.06 - 0.06]	-0.001	9.97E-01	9.99E-01	2581	1835
Left lingual gyrus	-0.008	0.031	[-0.067 - 0.052]	-0.056	8.07E-01	9.63E-01	2580	1835
Left medial orbitofrontal cortex	-0.015	0.031	[-0.075 - 0.045]	-0.142	6.31E-01	8.99E-01	2572	1826
Left middle temporal gyrus	-0.004	0.031	[-0.063 - 0.056]	-0.027	9.08E-01	9.83E-01	2579	1831
Left parahippocampal gyrus	-0.012	0.031	[-0.072 - 0.048]	-0.146	7.04E-01	9.26E-01	2581	1820
Left paracentral lobule	-0.003	0.031	[-0.063 - 0.057]	-0.028	9.14E-01	9.83E-01	2581	1836
Left pars opercularis of inferior frontal gyrus	-0.012	0.031	[-0.072 - 0.048]	-0.091	6.99E-01	9.26E-01	2581	1837
Left pars orbitalis of inferior frontal gyrus	0.007	0.031	[-0.053 - 0.067]	0.063	8.21E-01	9.69E-01	2580	1837
Left pars triangularis of inferior frontal gyrus	0.048	0.031	[-0.012 - 0.108]	0.401	1.18E-01	5.44E-01	2581	1837
Left pericalcarine cortex	0.000	0.031	[-0.06 - 0.06]	0.001	9.99E-01	9.99E-01	2578	1836
Left postcentral gyrus	-0.029	0.031	[-0.089 - 0.031]	-0.239	3.40E-01	7.66E-01	2580	1830
Left posterior cingulate cortex	-0.016	0.031	[-0.076 - 0.044]	-0.119	5.98E-01	8.84E-01	2580	1837
Left precentral gyrus	-0.022	0.031	[-0.082 - 0.038]	-0.177	4.74E-01	8.37E-01	2580	1833
Left precuneus	-0.027	0.031	[-0.087 - 0.033]	-0.199	3.75E-01	7.84E-01	2581	1837
Left rostral anterior cingulate cortex	-0.013	0.031	[-0.073 - 0.047]	-0.131	6.68E-01	9.19E-01	2578	1834
Left rostral middle frontal gyrus	-0.007	0.031	[-0.067 - 0.053]	-0.055	8.14E-01	9.66E-01	2579	1837

Left superior frontal gyrus	0.010	0.031	[-0.05 - 0.07]	0.072	7.50E-01	9.42E-01	2581	1835
Left superior parietal cortex	-0.063	0.031	[-0.122 - -0.003]	-0.488	4.13E-02	3.33E-01	2580	1837
Left superior temporal gyrus	0.014	0.031	[-0.046 - 0.074]	0.101	6.41E-01	9.07E-01	2574	1829
Left supramarginal gyrus	0.000	0.031	[-0.06 - 0.06]	0.000	9.99E-01	9.99E-01	2580	1837
Left frontal pole	-0.023	0.031	[-0.083 - 0.037]	-0.273	4.53E-01	8.29E-01	2578	1836
Left temporal pole	0.008	0.031	[-0.052 - 0.068]	0.122	7.92E-01	9.58E-01	2572	1812
Left transverse temporal gyrus	0.010	0.031	[-0.049 - 0.07]	0.112	7.32E-01	9.36E-01	2579	1837
Left insula	0.090	0.031	[0.03 - 0.15]	0.625	3.44E-03	6.70E-02	2578	1836
Right banks of superior temporal sulcus	-0.014	0.031	[-0.074 - 0.046]	-0.118	6.45E-01	9.08E-01	2574	1832
Right caudal anterior cingulate cortex	-0.014	0.031	[-0.074 - 0.046]	-0.148	6.46E-01	9.09E-01	2571	1834
Right caudal middle frontal gyrus	-0.046	0.031	[-0.106 - 0.014]	-0.360	1.36E-01	5.69E-01	2573	1835
Right cuneus	-0.020	0.031	[-0.08 - 0.039]	-0.190	5.06E-01	8.43E-01	2572	1833
Right entorhinal cortex	0.002	0.031	[-0.059 - 0.062]	0.025	9.56E-01	9.95E-01	2567	1797
Right fusiform gyrus	-0.055	0.031	[-0.115 - 0.005]	-0.498	7.47E-02	4.43E-01	2570	1833
Right inferior parietal cortex	-0.036	0.031	[-0.096 - 0.024]	-0.269	2.37E-01	6.88E-01	2574	1834
Right inferior temporal gyrus	-0.010	0.031	[-0.07 - 0.05]	-0.113	7.40E-01	9.38E-01	2572	1827
Right isthmus cingulate cortex	-0.029	0.031	[-0.089 - 0.031]	-0.264	3.43E-01	7.69E-01	2573	1834
Right lateral occipital cortex	-0.052	0.031	[-0.112 - 0.008]	-0.383	9.08E-02	4.87E-01	2571	1832
Right lateral orbitofrontal cortex	-0.021	0.031	[-0.081 - 0.039]	-0.171	4.98E-01	8.43E-01	2573	1833
Right lingual gyrus	-0.002	0.031	[-0.062 - 0.058]	-0.013	9.53E-01	9.95E-01	2574	1835
Right medial orbitofrontal cortex	-0.024	0.031	[-0.084 - 0.036]	-0.231	4.27E-01	8.20E-01	2567	1823
Right middle temporal gyrus	0.001	0.031	[-0.059 - 0.06]	0.005	9.85E-01	9.97E-01	2572	1833
Right parahippocampal gyrus	-0.006	0.031	[-0.066 - 0.054]	-0.066	8.57E-01	9.79E-01	2573	1824
Right paracentral lobule	-0.014	0.031	[-0.074 - 0.046]	-0.114	6.54E-01	9.13E-01	2574	1834
Right pars opercularis of inferior frontal gyrus	-0.020	0.031	[-0.08 - 0.04]	-0.157	5.11E-01	8.44E-01	2574	1834
Right pars orbitalis of inferior frontal gyrus	-0.002	0.031	[-0.062 - 0.057]	-0.022	9.37E-01	9.91E-01	2572	1835
Right pars triangularis of inferior frontal gyrus	0.033	0.031	[-0.027 - 0.093]	0.272	2.85E-01	7.18E-01	2574	1835
Right pericalcarine cortex	0.010	0.031	[-0.05 - 0.07]	0.116	7.43E-01	9.39E-01	2574	1832
Right postcentral gyrus	-0.067	0.031	[-0.127 - -0.007]	-0.573	2.82E-02	2.69E-01	2570	1828
Right posterior cingulate cortex	-0.051	0.031	[-0.111 - 0.009]	-0.396	9.45E-02	4.98E-01	2574	1834
Right precentral gyrus	-0.030	0.031	[-0.09 - 0.03]	-0.244	3.28E-01	7.53E-01	2569	1830

Right precuneus	-0.064	0.031	[-0.124 - -0.004]	-0.486	3.79E-02	3.23E-01	2574	1835
Right rostral anterior cingulate cortex	0.030	0.031	[-0.03 - 0.09]	0.298	3.28E-01	7.53E-01	2570	1833
Right rostral middle frontal gyrus	-0.054	0.031	[-0.114 - 0.006]	-0.421	7.79E-02	4.52E-01	2572	1832
Right superior frontal gyrus	0.014	0.031	[-0.046 - 0.074]	0.101	6.54E-01	9.13E-01	2574	1833
Right superior parietal cortex	-0.064	0.031	[-0.124 - -0.004]	-0.550	3.63E-02	3.13E-01	2574	1834
Right superior temporal gyrus	0.013	0.031	[-0.047 - 0.073]	0.100	6.74E-01	9.20E-01	2564	1823
Right supramarginal gyrus	-0.034	0.031	[-0.094 - 0.026]	-0.255	2.67E-01	7.05E-01	2565	1828
Right frontal pole	0.016	0.031	[-0.044 - 0.076]	0.191	6.01E-01	8.86E-01	2570	1832
Right temporal pole	0.011	0.031	[-0.049 - 0.071]	0.168	7.26E-01	9.34E-01	2563	1810
Right transverse temporal gyrus	-0.012	0.031	[-0.072 - 0.048]	-0.133	6.88E-01	9.25E-01	2574	1834
Right insula	-0.024	0.031	[-0.084 - 0.036]	-0.165	4.40E-01	8.23E-01	2567	1832
Left hemisphere average thickness	-0.024	0.031	[-0.084 - 0.037]	-0.131	4.47E-01	8.24E-01	2559	1769
Right hemisphere average thickness	-0.038	0.031	[-0.099 - 0.022]	-0.217	2.16E-01	6.70E-01	2554	1768

Supplementary Table 8. Sex-by-Diagnosis interaction on cortical surface area differences in adults (all BD patients compared to controls)

	Cohen's d (BD vs CTL SexXDxI)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.027	0.031	[-0.087 - 0.033]	-0.467	3.84E-01	7.87E-01	2580	1829
Left caudal anterior cingulate cortex	0.015	0.031	[-0.045 - 0.075]	0.325	6.31E-01	8.99E-01	2579	1835
Left caudal middle frontal gyrus	-0.003	0.031	[-0.063 - 0.057]	-0.050	9.25E-01	9.87E-01	2581	1837
Left cuneus	0.011	0.031	[-0.048 - 0.071]	0.187	7.09E-01	9.28E-01	2579	1834
Left entorhinal cortex	0.031	0.031	[-0.029 - 0.091]	0.664	3.20E-01	7.46E-01	2571	1803
Left fusiform gyrus	0.036	0.031	[-0.024 - 0.096]	0.528	2.45E-01	6.91E-01	2581	1835
Left inferior parietal cortex	-0.024	0.031	[-0.084 - 0.036]	-0.354	4.41E-01	8.23E-01	2579	1833
Left inferior temporal gyrus	-0.029	0.031	[-0.089 - 0.031]	-0.495	3.50E-01	7.73E-01	2577	1824
Left isthmus cingulate cortex	-0.013	0.031	[-0.073 - 0.047]	-0.240	6.74E-01	9.20E-01	2580	1835
Left lateral occipital cortex	0.059	0.031	[-0.001 - 0.119]	0.822	5.35E-02	3.79E-01	2579	1832
Left lateral orbitofrontal cortex	-0.031	0.031	[-0.091 - 0.029]	-0.404	3.18E-01	7.46E-01	2580	1834
Left lingual gyrus	-0.024	0.031	[-0.083 - 0.036]	-0.357	4.41E-01	8.23E-01	2580	1835
Left medial orbitofrontal cortex	-0.049	0.031	[-0.109 - 0.011]	-0.720	1.13E-01	5.38E-01	2574	1826
Left middle temporal gyrus	0.035	0.031	[-0.025 - 0.094]	0.512	2.61E-01	7.03E-01	2580	1829
Left parahippocampal gyrus	-0.027	0.031	[-0.087 - 0.033]	-0.427	3.85E-01	7.87E-01	2582	1820
Left paracentral lobule	0.000	0.031	[-0.06 - 0.06]	-0.001	9.97E-01	9.99E-01	2580	1836
Left pars opercularis of inferior frontal gyrus	0.021	0.031	[-0.039 - 0.081]	0.342	4.99E-01	8.43E-01	2582	1837
Left pars orbitalis of inferior frontal gyrus	-0.036	0.031	[-0.096 - 0.024]	-0.518	2.42E-01	6.90E-01	2579	1837
Left pars triangularis of inferior frontal gyrus	0.013	0.031	[-0.047 - 0.072]	0.201	6.82E-01	9.23E-01	2581	1837
Left pericalcarine cortex	0.026	0.031	[-0.034 - 0.085]	0.468	4.05E-01	8.01E-01	2579	1834
Left postcentral gyrus	0.022	0.031	[-0.038 - 0.082]	0.281	4.66E-01	8.33E-01	2581	1830
Left posterior cingulate cortex	0.004	0.031	[-0.055 - 0.064]	0.073	8.87E-01	9.82E-01	2582	1836
Left precentral gyrus	0.019	0.031	[-0.041 - 0.079]	0.233	5.41E-01	8.55E-01	2581	1833
Left precuneus	-0.009	0.031	[-0.069 - 0.051]	-0.117	7.73E-01	9.50E-01	2581	1837
Left rostral anterior cingulate cortex	0.040	0.031	[-0.02 - 0.1]	0.833	1.95E-01	6.46E-01	2581	1834
Left rostral middle frontal gyrus	-0.003	0.031	[-0.063 - 0.057]	-0.047	9.17E-01	9.83E-01	2580	1837

Left superior frontal gyrus	0.025	0.031	[-0.035 - 0.085]	0.321	4.11E-01	8.04E-01	2580	1835
Left superior parietal cortex	0.015	0.031	[-0.045 - 0.075]	0.195	6.19E-01	8.93E-01	2579	1836
Left superior temporal gyrus	-0.018	0.031	[-0.078 - 0.042]	-0.228	5.57E-01	8.66E-01	2575	1827
Left supramarginal gyrus	-0.046	0.031	[-0.105 - 0.014]	-0.697	1.37E-01	5.70E-01	2579	1837
Left frontal pole	0.022	0.031	[-0.038 - 0.082]	0.387	4.78E-01	8.39E-01	2576	1836
Left temporal pole	0.030	0.031	[-0.03 - 0.09]	0.463	3.36E-01	7.61E-01	2573	1812
Left transverse temporal gyrus	-0.014	0.031	[-0.074 - 0.046]	-0.241	6.49E-01	9.11E-01	2581	1837
Left insula	-0.021	0.031	[-0.081 - 0.039]	-0.278	4.91E-01	8.43E-01	2579	1835
Right banks of superior temporal sulcus	-0.011	0.031	[-0.071 - 0.049]	-0.200	7.27E-01	9.34E-01	2575	1832
Right caudal anterior cingulate cortex	0.083	0.031	[0.023 - 0.143]	1.830	6.73E-03	1.06E-01	2574	1833
Right caudal middle frontal gyrus	-0.001	0.031	[-0.06 - 0.059]	-0.009	9.87E-01	9.97E-01	2574	1834
Right cuneus	0.022	0.031	[-0.038 - 0.082]	0.341	4.70E-01	8.35E-01	2571	1833
Right entorhinal cortex	-0.020	0.031	[-0.08 - 0.04]	-0.476	5.16E-01	8.47E-01	2566	1796
Right fusiform gyrus	-0.024	0.031	[-0.084 - 0.036]	-0.347	4.40E-01	8.23E-01	2571	1832
Right inferior parietal cortex	-0.007	0.031	[-0.067 - 0.053]	-0.103	8.23E-01	9.70E-01	2573	1835
Right inferior temporal gyrus	-0.018	0.031	[-0.078 - 0.042]	-0.314	5.53E-01	8.63E-01	2574	1828
Right isthmus cingulate cortex	0.039	0.031	[-0.021 - 0.099]	0.706	2.07E-01	6.60E-01	2573	1833
Right lateral occipital cortex	-0.014	0.031	[-0.074 - 0.045]	-0.203	6.39E-01	9.05E-01	2573	1833
Right lateral orbitofrontal cortex	-0.032	0.031	[-0.092 - 0.028]	-0.439	2.93E-01	7.23E-01	2573	1833
Right lingual gyrus	-0.004	0.031	[-0.063 - 0.056]	-0.052	9.08E-01	9.83E-01	2575	1835
Right medial orbitofrontal cortex	0.013	0.031	[-0.047 - 0.073]	0.175	6.77E-01	9.20E-01	2568	1823
Right middle temporal gyrus	-0.044	0.031	[-0.103 - 0.016]	-0.672	1.56E-01	5.95E-01	2572	1834
Right parahippocampal gyrus	-0.037	0.031	[-0.097 - 0.023]	-0.564	2.34E-01	6.87E-01	2572	1826
Right paracentral lobule	0.035	0.031	[-0.025 - 0.094]	0.550	2.61E-01	7.03E-01	2574	1833
Right pars opercularis of inferior frontal gyrus	0.041	0.031	[-0.019 - 0.101]	0.704	1.79E-01	6.28E-01	2574	1834
Right pars orbitalis of inferior frontal gyrus	0.014	0.031	[-0.046 - 0.074]	0.197	6.52E-01	9.12E-01	2572	1835
Right pars triangularis of inferior frontal gyrus	0.049	0.031	[-0.011 - 0.109]	0.851	1.09E-01	5.29E-01	2575	1834
Right pericalcarine cortex	-0.006	0.031	[-0.066 - 0.054]	-0.105	8.53E-01	9.78E-01	2575	1832
Right postcentral gyrus	0.035	0.031	[-0.025 - 0.095]	0.448	2.58E-01	7.00E-01	2571	1828
Right posterior cingulate cortex	0.050	0.031	[-0.01 - 0.11]	0.820	1.05E-01	5.17E-01	2574	1833
Right precentral gyrus	-0.015	0.031	[-0.074 - 0.045]	-0.180	6.37E-01	9.04E-01	2571	1830

Right precuneus	-0.059	0.031	[-0.119 - 0.001]	-0.787	5.48E-02	3.83E-01	2575	1835
Right rostral anterior cingulate cortex	0.036	0.031	[-0.024 - 0.096]	0.796	2.41E-01	6.90E-01	2572	1832
Right rostral middle frontal gyrus	-0.023	0.031	[-0.082 - 0.037]	-0.339	4.63E-01	8.33E-01	2573	1832
Right superior frontal gyrus	-0.007	0.031	[-0.066 - 0.053]	-0.086	8.32E-01	9.72E-01	2575	1833
Right superior parietal cortex	-0.006	0.031	[-0.066 - 0.054]	-0.071	8.51E-01	9.77E-01	2575	1835
Right superior temporal gyrus	0.023	0.031	[-0.037 - 0.083]	0.287	4.51E-01	8.28E-01	2566	1825
Right supramarginal gyrus	0.020	0.031	[-0.04 - 0.08]	0.308	5.15E-01	8.47E-01	2565	1827
Right frontal pole	0.000	0.031	[-0.06 - 0.06]	0.004	9.94E-01	9.98E-01	2569	1834
Right temporal pole	0.053	0.031	[-0.007 - 0.113]	0.845	8.43E-02	4.73E-01	2564	1810
Right transverse temporal gyrus	-0.014	0.031	[-0.074 - 0.046]	-0.250	6.55E-01	9.13E-01	2574	1834
Right insula	-0.005	0.031	[-0.064 - 0.055]	-0.063	8.83E-01	9.82E-01	2568	1832
Left hemisphere total surface area	0.000	0.031	[-0.062 - 0.061]	-0.003	9.92E-01	9.98E-01	2512	1697
Right hemisphere total surface area	0.001	0.031	[-0.061 - 0.062]	0.009	9.79E-01	9.97E-01	2509	1697

Supplementary Table 9. Age-by-Diagnosis interaction on cortical thickness differences in adults (all BD patients compared to controls)

	Cohen's d (BD vs CTL AgeXDx)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.045	0.031	[-0.105 - 0.015]	-0.362	1.46E-01	5.83E-01	2579	1830
Left caudal anterior cingulate cortex	0.025	0.031	[-0.035 - 0.085]	0.264	4.15E-01	8.09E-01	2580	1836
Left caudal middle frontal gyrus	0.028	0.031	[-0.032 - 0.088]	0.217	3.65E-01	7.80E-01	2581	1835
Left cuneus	-0.018	0.031	[-0.078 - 0.042]	-0.167	5.63E-01	8.70E-01	2579	1835
Left entorhinal cortex	-0.036	0.031	[-0.097 - 0.024]	-0.498	2.38E-01	6.89E-01	2569	1803
Left fusiform gyrus	-0.072	0.031	[-0.132 - -0.012]	-0.643	1.90E-02	2.12E-01	2580	1835
Left inferior parietal cortex	-0.030	0.031	[-0.09 - 0.03]	-0.213	3.30E-01	7.55E-01	2580	1834
Left inferior temporal gyrus	-0.045	0.031	[-0.105 - 0.015]	-0.474	1.39E-01	5.71E-01	2576	1824
Left isthmus cingulate cortex	-0.032	0.031	[-0.092 - 0.028]	-0.291	2.93E-01	7.23E-01	2580	1836
Left lateral occipital cortex	-0.072	0.031	[-0.132 - -0.012]	-0.505	1.97E-02	2.17E-01	2577	1832
Left lateral orbitofrontal cortex	-0.066	0.031	[-0.126 - -0.006]	-0.532	3.16E-02	2.88E-01	2581	1835
Left lingual gyrus	-0.019	0.031	[-0.079 - 0.04]	-0.145	5.27E-01	8.51E-01	2580	1835
Left medial orbitofrontal cortex	-0.046	0.031	[-0.106 - 0.014]	-0.441	1.37E-01	5.69E-01	2572	1826
Left middle temporal gyrus	-0.053	0.031	[-0.112 - 0.007]	-0.404	8.70E-02	4.78E-01	2579	1831
Left parahippocampal gyrus	-0.040	0.031	[-0.1 - 0.02]	-0.504	1.88E-01	6.42E-01	2581	1820
Left paracentral lobule	0.011	0.031	[-0.049 - 0.071]	0.094	7.18E-01	9.31E-01	2581	1836
Left pars opercularis of inferior frontal gyrus	-0.044	0.031	[-0.104 - 0.016]	-0.335	1.54E-01	5.94E-01	2581	1837
Left pars orbitalis of inferior frontal gyrus	-0.036	0.031	[-0.096 - 0.023]	-0.332	2.34E-01	6.87E-01	2580	1837
Left pars triangularis of inferior frontal gyrus	-0.028	0.031	[-0.088 - 0.032]	-0.236	3.58E-01	7.78E-01	2581	1837
Left pericalcarine cortex	-0.073	0.031	[-0.133 - -0.013]	-0.851	1.76E-02	1.99E-01	2578	1836
Left postcentral gyrus	0.028	0.031	[-0.032 - 0.088]	0.228	3.62E-01	7.78E-01	2580	1830
Left posterior cingulate cortex	-0.014	0.031	[-0.074 - 0.045]	-0.106	6.38E-01	9.05E-01	2580	1837
Left precentral gyrus	0.008	0.031	[-0.052 - 0.068]	0.065	7.94E-01	9.58E-01	2580	1833
Left precuneus	-0.007	0.031	[-0.067 - 0.053]	-0.050	8.25E-01	9.70E-01	2581	1837
Left rostral anterior cingulate cortex	-0.028	0.031	[-0.088 - 0.032]	-0.275	3.67E-01	7.82E-01	2578	1834
Left rostral middle frontal gyrus	-0.063	0.031	[-0.122 - -0.003]	-0.478	4.15E-02	3.33E-01	2579	1837

Left superior frontal gyrus	0.029	0.031	[-0.031 - 0.088]	0.211	3.51E-01	7.74E-01	2581	1835
Left superior parietal cortex	-0.026	0.031	[-0.086 - 0.034]	-0.205	3.91E-01	7.94E-01	2580	1837
Left superior temporal gyrus	-0.066	0.031	[-0.126 - -0.006]	-0.468	3.11E-02	2.85E-01	2574	1829
Left supramarginal gyrus	0.004	0.031	[-0.056 - 0.064]	0.030	8.93E-01	9.83E-01	2580	1837
Left frontal pole	-0.063	0.031	[-0.123 - -0.003]	-0.744	4.06E-02	3.31E-01	2578	1836
Left temporal pole	-0.057	0.031	[-0.118 - 0.003]	-0.865	6.21E-02	4.04E-01	2572	1812
Left transverse temporal gyrus	-0.051	0.031	[-0.111 - 0.009]	-0.542	9.73E-02	5.04E-01	2579	1837
Left insula	-0.052	0.031	[-0.111 - 0.008]	-0.359	9.30E-02	4.91E-01	2578	1836
Right banks of superior temporal sulcus	-0.018	0.031	[-0.078 - 0.042]	-0.152	5.52E-01	8.63E-01	2574	1832
Right caudal anterior cingulate cortex	0.001	0.031	[-0.059 - 0.061]	0.012	9.70E-01	9.97E-01	2571	1834
Right caudal middle frontal gyrus	0.002	0.031	[-0.058 - 0.062]	0.014	9.52E-01	9.95E-01	2573	1835
Right cuneus	-0.045	0.031	[-0.105 - 0.014]	-0.424	1.39E-01	5.71E-01	2572	1833
Right entorhinal cortex	0.025	0.031	[-0.035 - 0.086]	0.376	4.12E-01	8.06E-01	2567	1797
Right fusiform gyrus	-0.057	0.031	[-0.117 - 0.003]	-0.516	6.52E-02	4.14E-01	2570	1833
Right inferior parietal cortex	-0.004	0.031	[-0.064 - 0.056]	-0.029	8.97E-01	9.83E-01	2574	1834
Right inferior temporal gyrus	-0.082	0.031	[-0.142 - -0.022]	-0.914	7.48E-03	1.16E-01	2572	1827
Right isthmus cingulate cortex	-0.045	0.031	[-0.105 - 0.015]	-0.405	1.46E-01	5.82E-01	2573	1834
Right lateral occipital cortex	-0.092	0.031	[-0.152 - -0.032]	-0.677	2.83E-03	5.82E-02	2571	1832
Right lateral orbitofrontal cortex	-0.080	0.031	[-0.14 - -0.02]	-0.663	8.89E-03	1.31E-01	2573	1833
Right lingual gyrus	-0.046	0.031	[-0.106 - 0.014]	-0.345	1.31E-01	5.63E-01	2574	1835
Right medial orbitofrontal cortex	-0.067	0.031	[-0.127 - -0.007]	-0.633	2.97E-02	2.75E-01	2567	1823
Right middle temporal gyrus	-0.077	0.031	[-0.137 - -0.017]	-0.709	1.18E-02	1.54E-01	2572	1833
Right parahippocampal gyrus	-0.011	0.031	[-0.071 - 0.049]	-0.127	7.27E-01	9.34E-01	2573	1824
Right paracentral lobule	0.027	0.031	[-0.033 - 0.087]	0.226	3.75E-01	7.84E-01	2574	1834
Right pars opercularis of inferior frontal gyrus	0.009	0.031	[-0.05 - 0.069]	0.073	7.58E-01	9.45E-01	2574	1834
Right pars orbitalis of inferior frontal gyrus	-0.013	0.031	[-0.073 - 0.047]	-0.118	6.68E-01	9.19E-01	2572	1835
Right pars triangularis of inferior frontal gyrus	-0.047	0.031	[-0.107 - 0.013]	-0.392	1.24E-01	5.53E-01	2574	1835
Right pericalcarine cortex	-0.077	0.031	[-0.137 - -0.018]	-0.894	1.17E-02	1.53E-01	2574	1832
Right postcentral gyrus	0.017	0.031	[-0.043 - 0.077]	0.146	5.75E-01	8.75E-01	2570	1828
Right posterior cingulate cortex	-0.036	0.031	[-0.096 - 0.024]	-0.275	2.45E-01	6.91E-01	2574	1834
Right precentral gyrus	0.017	0.031	[-0.043 - 0.077]	0.135	5.88E-01	8.80E-01	2569	1830

Right precuneus	-0.034	0.031	[-0.094 - 0.026]	-0.258	2.71E-01	7.08E-01	2574	1835
Right rostral anterior cingulate cortex	-0.024	0.031	[-0.083 - 0.036]	-0.233	4.43E-01	8.24E-01	2570	1833
Right rostral middle frontal gyrus	-0.037	0.031	[-0.097 - 0.023]	-0.288	2.28E-01	6.81E-01	2572	1832
Right superior frontal gyrus	0.021	0.031	[-0.039 - 0.081]	0.155	4.94E-01	8.43E-01	2574	1833
Right superior parietal cortex	-0.003	0.031	[-0.062 - 0.057]	-0.022	9.34E-01	9.89E-01	2574	1834
Right superior temporal gyrus	-0.074	0.031	[-0.134 - -0.013]	-0.566	1.69E-02	1.94E-01	2564	1823
Right supramarginal gyrus	-0.010	0.031	[-0.07 - 0.05]	-0.075	7.43E-01	9.39E-01	2565	1828
Right frontal pole	-0.045	0.031	[-0.104 - 0.015]	-0.531	1.47E-01	5.85E-01	2570	1832
Right temporal pole	-0.059	0.031	[-0.119 - 0.001]	-0.915	5.61E-02	3.88E-01	2563	1810
Right transverse temporal gyrus	-0.053	0.031	[-0.113 - 0.007]	-0.569	8.65E-02	4.78E-01	2574	1834
Right insula	-0.052	0.031	[-0.112 - 0.007]	-0.364	8.76E-02	4.80E-01	2567	1832
Left hemisphere average thickness	-0.052	0.031	[-0.113 - 0.008]	-0.291	9.11E-02	4.87E-01	2559	1769
Right hemisphere average thickness	-0.057	0.031	[-0.118 - 0.003]	-0.323	6.50E-02	4.14E-01	2554	1768

Supplementary Table 10. Age-by-Diagnosis interaction on cortical surface area differences in adults (all BD patients compared to controls)

	Cohen's d (BD vs CTL AgeXDx)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.024	0.031	[-0.036 - 0.083]	0.412	4.43E-01	8.24E-01	2580	1829
Left caudal anterior cingulate cortex	-0.005	0.031	[-0.065 - 0.055]	-0.111	8.70E-01	9.81E-01	2579	1835
Left caudal middle frontal gyrus	0.043	0.031	[-0.017 - 0.103]	0.742	1.63E-01	6.04E-01	2581	1837
Left cuneus	0.014	0.031	[-0.046 - 0.074]	0.232	6.43E-01	9.08E-01	2579	1834
Left entorhinal cortex	-0.001	0.031	[-0.061 - 0.06]	-0.013	9.84E-01	9.97E-01	2571	1803
Left fusiform gyrus	0.010	0.031	[-0.05 - 0.07]	0.151	7.39E-01	9.38E-01	2581	1835
Left inferior parietal cortex	0.006	0.031	[-0.054 - 0.066]	0.095	8.36E-01	9.73E-01	2579	1833
Left inferior temporal gyrus	0.007	0.031	[-0.053 - 0.067]	0.127	8.11E-01	9.65E-01	2577	1824
Left isthmus cingulate cortex	-0.002	0.031	[-0.062 - 0.058]	-0.041	9.42E-01	9.92E-01	2580	1835
Left lateral occipital cortex	-0.016	0.031	[-0.076 - 0.044]	-0.225	5.97E-01	8.84E-01	2579	1832
Left lateral orbitofrontal cortex	0.001	0.031	[-0.059 - 0.061]	0.009	9.82E-01	9.97E-01	2580	1834
Left lingual gyrus	0.061	0.031	[0.001 - 0.121]	0.922	4.68E-02	3.51E-01	2580	1835
Left medial orbitofrontal cortex	0.006	0.031	[-0.054 - 0.066]	0.096	8.34E-01	9.72E-01	2574	1826
Left middle temporal gyrus	-0.020	0.031	[-0.079 - 0.04]	-0.289	5.25E-01	8.49E-01	2580	1829
Left parahippocampal gyrus	0.020	0.031	[-0.04 - 0.08]	0.315	5.22E-01	8.47E-01	2582	1820
Left paracentral lobule	0.006	0.031	[-0.054 - 0.066]	0.089	8.47E-01	9.76E-01	2580	1836
Left pars opercularis of inferior frontal gyrus	0.023	0.031	[-0.036 - 0.083]	0.386	4.44E-01	8.24E-01	2582	1837
Left pars orbitalis of inferior frontal gyrus	-0.035	0.031	[-0.095 - 0.025]	-0.504	2.54E-01	6.95E-01	2579	1837
Left pars triangularis of inferior frontal gyrus	-0.017	0.031	[-0.077 - 0.043]	-0.268	5.84E-01	8.78E-01	2581	1837
Left pericalcarine cortex	0.020	0.031	[-0.04 - 0.08]	0.370	5.10E-01	8.43E-01	2579	1834
Left postcentral gyrus	0.009	0.031	[-0.051 - 0.069]	0.110	7.75E-01	9.52E-01	2581	1830
Left posterior cingulate cortex	-0.100	0.031	[-0.16 - -0.04]	-1.674	1.12E-03	2.69E-02	2582	1836
Left precentral gyrus	0.030	0.031	[-0.029 - 0.09]	0.377	3.21E-01	7.47E-01	2581	1833
Left precuneus	-0.029	0.031	[-0.088 - 0.031]	-0.376	3.53E-01	7.76E-01	2581	1837
Left rostral anterior cingulate cortex	-0.016	0.031	[-0.076 - 0.044]	-0.332	6.06E-01	8.88E-01	2581	1834
Left rostral middle frontal gyrus	0.035	0.031	[-0.024 - 0.095]	0.523	2.47E-01	6.91E-01	2580	1837

Left superior frontal gyrus	0.011	0.031	[-0.049 - 0.07]	0.135	7.30E-01	9.35E-01	2580	1835
Left superior parietal cortex	-0.008	0.031	[-0.068 - 0.052]	-0.105	7.88E-01	9.58E-01	2579	1836
Left superior temporal gyrus	-0.057	0.031	[-0.116 - 0.003]	-0.713	6.61E-02	4.15E-01	2575	1827
Left supramarginal gyrus	-0.029	0.031	[-0.089 - 0.03]	-0.448	3.39E-01	7.65E-01	2579	1837
Left frontal pole	-0.020	0.031	[-0.08 - 0.04]	-0.359	5.10E-01	8.43E-01	2576	1836
Left temporal pole	-0.063	0.031	[-0.123 - -0.002]	-0.977	4.24E-02	3.36E-01	2573	1812
Left transverse temporal gyrus	-0.061	0.031	[-0.121 - -0.002]	-1.064	4.52E-02	3.45E-01	2581	1837
Left insula	0.004	0.031	[-0.056 - 0.063]	0.048	9.06E-01	9.83E-01	2579	1835
Right banks of superior temporal sulcus	-0.027	0.031	[-0.087 - 0.033]	-0.501	3.82E-01	7.87E-01	2575	1832
Right caudal anterior cingulate cortex	0.024	0.031	[-0.036 - 0.084]	0.534	4.29E-01	8.21E-01	2574	1833
Right caudal middle frontal gyrus	0.021	0.031	[-0.039 - 0.081]	0.389	4.93E-01	8.43E-01	2574	1834
Right cuneus	-0.012	0.031	[-0.072 - 0.048]	-0.190	6.87E-01	9.25E-01	2571	1833
Right entorhinal cortex	0.023	0.031	[-0.037 - 0.083]	0.543	4.59E-01	8.33E-01	2566	1796
Right fusiform gyrus	0.025	0.031	[-0.035 - 0.085]	0.371	4.08E-01	8.04E-01	2571	1832
Right inferior parietal cortex	0.025	0.031	[-0.035 - 0.085]	0.375	4.17E-01	8.10E-01	2573	1835
Right inferior temporal gyrus	-0.002	0.031	[-0.062 - 0.058]	-0.030	9.55E-01	9.95E-01	2574	1828
Right isthmus cingulate cortex	0.023	0.031	[-0.037 - 0.083]	0.419	4.54E-01	8.30E-01	2573	1833
Right lateral occipital cortex	0.012	0.031	[-0.047 - 0.072]	0.176	6.84E-01	9.24E-01	2573	1833
Right lateral orbitofrontal cortex	0.020	0.031	[-0.04 - 0.08]	0.270	5.18E-01	8.47E-01	2573	1833
Right lingual gyrus	0.044	0.031	[-0.016 - 0.103]	0.646	1.56E-01	5.95E-01	2575	1835
Right medial orbitofrontal cortex	-0.007	0.031	[-0.067 - 0.053]	-0.099	8.14E-01	9.66E-01	2568	1823
Right middle temporal gyrus	-0.013	0.031	[-0.072 - 0.047]	-0.193	6.83E-01	9.24E-01	2572	1834
Right parahippocampal gyrus	0.023	0.031	[-0.037 - 0.083]	0.351	4.59E-01	8.33E-01	2572	1826
Right paracentral lobule	0.002	0.031	[-0.058 - 0.062]	0.026	9.57E-01	9.95E-01	2574	1833
Right pars opercularis of inferior frontal gyrus	-0.028	0.031	[-0.088 - 0.031]	-0.485	3.55E-01	7.77E-01	2574	1834
Right pars orbitalis of inferior frontal gyrus	-0.032	0.031	[-0.092 - 0.028]	-0.452	3.01E-01	7.32E-01	2572	1835
Right pars triangularis of inferior frontal gyrus	-0.040	0.031	[-0.1 - 0.02]	-0.690	1.93E-01	6.45E-01	2575	1834
Right pericalcarine cortex	0.008	0.031	[-0.052 - 0.068]	0.148	7.93E-01	9.58E-01	2575	1832
Right postcentral gyrus	0.015	0.031	[-0.045 - 0.075]	0.192	6.28E-01	8.97E-01	2571	1828
Right posterior cingulate cortex	-0.008	0.031	[-0.068 - 0.052]	-0.126	8.02E-01	9.62E-01	2574	1833
Right precentral gyrus	0.041	0.031	[-0.019 - 0.101]	0.512	1.80E-01	6.28E-01	2571	1830

Right precuneus	-0.019	0.031	[-0.079 - 0.041]	-0.249	5.43E-01	8.57E-01	2575	1835
Right rostral anterior cingulate cortex	-0.004	0.031	[-0.064 - 0.056]	-0.083	9.03E-01	9.83E-01	2572	1832
Right rostral middle frontal gyrus	0.041	0.031	[-0.019 - 0.101]	0.621	1.80E-01	6.28E-01	2573	1832
Right superior frontal gyrus	-0.006	0.031	[-0.066 - 0.054]	-0.079	8.46E-01	9.76E-01	2575	1833
Right superior parietal cortex	-0.005	0.031	[-0.065 - 0.054]	-0.067	8.61E-01	9.80E-01	2575	1835
Right superior temporal gyrus	-0.059	0.031	[-0.119 - 0.001]	-0.731	5.48E-02	3.83E-01	2566	1825
Right supramarginal gyrus	-0.051	0.031	[-0.111 - 0.009]	-0.785	9.72E-02	5.04E-01	2565	1827
Right frontal pole	-0.023	0.031	[-0.083 - 0.037]	-0.391	4.60E-01	8.33E-01	2569	1834
Right temporal pole	0.014	0.031	[-0.046 - 0.074]	0.220	6.53E-01	9.13E-01	2564	1810
Right transverse temporal gyrus	-0.034	0.031	[-0.094 - 0.026]	-0.615	2.72E-01	7.09E-01	2574	1834
Right insula	-0.037	0.031	[-0.097 - 0.023]	-0.517	2.24E-01	6.78E-01	2568	1832
Left hemisphere total surface area	0.019	0.031	[-0.043 - 0.08]	0.200	5.57E-01	8.66E-01	2512	1697
Right hemisphere total surface area	0.024	0.031	[-0.038 - 0.086]	0.261	4.48E-01	8.25E-01	2509	1697

Supplementary Table 11. Cortical thickness differences in adults (BD type-1 patients compared to BD type-2)

	Cohen's d (BD1 vs BD2)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.064	0.061	[-0.055 - 0.183]	0.517	3.00E-01	7.32E-01	1268	344
Left caudal anterior cingulate cortex	-0.009	0.061	[-0.128 - 0.11]	-0.092	8.87E-01	9.82E-01	1273	345
Left caudal middle frontal gyrus	0.047	0.061	[-0.072 - 0.166]	0.366	4.45E-01	8.24E-01	1272	345
Left cuneus	-0.003	0.061	[-0.122 - 0.116]	-0.026	9.65E-01	9.96E-01	1273	344
Left entorhinal cortex	-0.046	0.062	[-0.167 - 0.075]	-0.631	4.60E-01	8.33E-01	1254	331
Left fusiform gyrus	0.037	0.061	[-0.082 - 0.156]	0.328	5.50E-01	8.62E-01	1273	344
Left inferior parietal cortex	-0.083	0.061	[-0.202 - 0.036]	-0.589	1.78E-01	6.27E-01	1271	345
Left inferior temporal gyrus	0.032	0.061	[-0.088 - 0.151]	0.329	6.08E-01	8.88E-01	1264	342
Left isthmus cingulate cortex	-0.021	0.061	[-0.14 - 0.098]	-0.193	7.28E-01	9.34E-01	1273	345
Left lateral occipital cortex	-0.131	0.061	[-0.251 - -0.012]	-0.926	3.28E-02	2.94E-01	1271	344
Left lateral orbitofrontal cortex	0.112	0.061	[-0.007 - 0.231]	0.900	6.94E-02	4.26E-01	1272	345
Left lingual gyrus	0.016	0.061	[-0.103 - 0.135]	0.117	8.00E-01	9.62E-01	1272	345
Left medial orbitofrontal cortex	0.062	0.061	[-0.058 - 0.181]	0.596	3.15E-01	7.44E-01	1266	342
Left middle temporal gyrus	0.040	0.061	[-0.079 - 0.159]	0.307	5.15E-01	8.47E-01	1268	345
Left parahippocampal gyrus	0.111	0.061	[-0.009 - 0.231]	1.384	7.29E-02	4.37E-01	1263	339
Left paracentral lobule	-0.020	0.061	[-0.139 - 0.099]	-0.167	7.50E-01	9.42E-01	1273	345
Left pars opercularis of inferior frontal gyrus	0.054	0.061	[-0.065 - 0.173]	0.411	3.82E-01	7.87E-01	1274	345
Left pars orbitalis of inferior frontal gyrus	0.057	0.061	[-0.061 - 0.176]	0.523	3.49E-01	7.73E-01	1274	345
Left pars triangularis of inferior frontal gyrus	0.007	0.061	[-0.112 - 0.126]	0.055	9.15E-01	9.83E-01	1274	345
Left pericalcarine cortex	-0.075	0.061	[-0.194 - 0.044]	-0.873	2.23E-01	6.78E-01	1273	345
Left postcentral gyrus	-0.084	0.061	[-0.204 - 0.035]	-0.687	1.72E-01	6.15E-01	1273	341
Left posterior cingulate cortex	0.041	0.061	[-0.078 - 0.16]	0.300	5.08E-01	8.43E-01	1274	345
Left precentral gyrus	-0.061	0.061	[-0.181 - 0.058]	-0.493	3.20E-01	7.46E-01	1273	342
Left precuneus	-0.033	0.061	[-0.152 - 0.086]	-0.242	5.90E-01	8.80E-01	1274	345
Left rostral anterior cingulate cortex	0.023	0.061	[-0.096 - 0.142]	0.232	7.04E-01	9.26E-01	1271	345
Left rostral middle frontal gyrus	0.089	0.061	[-0.03 - 0.208]	0.680	1.48E-01	5.85E-01	1274	345

Left superior frontal gyrus	0.057	0.061	[-0.062 - 0.176]	0.420	3.54E-01	7.77E-01	1272	345
Left superior parietal cortex	-0.076	0.061	[-0.195 - 0.043]	-0.591	2.17E-01	6.70E-01	1274	345
Left superior temporal gyrus	0.118	0.061	[-0.001 - 0.238]	0.836	5.55E-02	3.85E-01	1270	341
Left supramarginal gyrus	-0.042	0.061	[-0.161 - 0.077]	-0.311	4.90E-01	8.43E-01	1274	345
Left frontal pole	0.089	0.061	[-0.03 - 0.208]	1.052	1.48E-01	5.85E-01	1273	345
Left temporal pole	0.042	0.062	[-0.079 - 0.163]	0.636	4.98E-01	8.43E-01	1261	333
Left transverse temporal gyrus	0.072	0.061	[-0.047 - 0.191]	0.764	2.43E-01	6.91E-01	1274	345
Left insula	0.072	0.061	[-0.047 - 0.191]	0.501	2.41E-01	6.90E-01	1273	345
Right banks of superior temporal sulcus	0.051	0.061	[-0.068 - 0.17]	0.426	4.05E-01	8.01E-01	1275	343
Right caudal anterior cingulate cortex	0.031	0.061	[-0.088 - 0.15]	0.324	6.14E-01	8.91E-01	1274	345
Right caudal middle frontal gyrus	0.032	0.061	[-0.087 - 0.151]	0.255	5.98E-01	8.84E-01	1275	345
Right cuneus	0.008	0.061	[-0.111 - 0.127]	0.078	8.91E-01	9.82E-01	1274	345
Right entorhinal cortex	0.075	0.062	[-0.047 - 0.197]	1.113	2.32E-01	6.85E-01	1258	327
Right fusiform gyrus	0.046	0.061	[-0.073 - 0.165]	0.420	4.53E-01	8.29E-01	1273	345
Right inferior parietal cortex	-0.018	0.061	[-0.137 - 0.101]	-0.132	7.72E-01	9.50E-01	1275	344
Right inferior temporal gyrus	-0.008	0.061	[-0.128 - 0.111]	-0.091	8.95E-01	9.83E-01	1270	342
Right isthmus cingulate cortex	-0.084	0.061	[-0.203 - 0.035]	-0.762	1.71E-01	6.15E-01	1274	345
Right lateral occipital cortex	-0.058	0.061	[-0.177 - 0.061]	-0.428	3.45E-01	7.70E-01	1273	345
Right lateral orbitofrontal cortex	0.094	0.061	[-0.025 - 0.213]	0.777	1.25E-01	5.53E-01	1273	345
Right lingual gyrus	0.023	0.061	[-0.096 - 0.142]	0.170	7.11E-01	9.29E-01	1275	345
Right medial orbitofrontal cortex	0.035	0.061	[-0.085 - 0.155]	0.331	5.71E-01	8.74E-01	1267	341
Right middle temporal gyrus	0.010	0.061	[-0.109 - 0.129]	0.088	8.76E-01	9.82E-01	1273	345
Right parahippocampal gyrus	0.013	0.061	[-0.107 - 0.132]	0.151	8.36E-01	9.73E-01	1266	343
Right paracentral lobule	-0.033	0.061	[-0.152 - 0.086]	-0.275	5.90E-01	8.80E-01	1274	345
Right pars opercularis of inferior frontal gyrus	0.108	0.061	[-0.011 - 0.227]	0.838	7.88E-02	4.55E-01	1274	345
Right pars orbitalis of inferior frontal gyrus	0.051	0.061	[-0.068 - 0.169]	0.451	4.11E-01	8.04E-01	1275	345
Right pars triangularis of inferior frontal gyrus	0.043	0.061	[-0.076 - 0.162]	0.359	4.80E-01	8.39E-01	1275	345
Right pericalcarine cortex	-0.034	0.061	[-0.153 - 0.085]	-0.398	5.75E-01	8.75E-01	1272	345
Right postcentral gyrus	0.043	0.061	[-0.076 - 0.163]	0.369	4.80E-01	8.39E-01	1272	343
Right posterior cingulate cortex	-0.079	0.061	[-0.198 - 0.04]	-0.610	1.97E-01	6.50E-01	1274	345
Right precentral gyrus	-0.032	0.061	[-0.152 - 0.087]	-0.262	6.00E-01	8.85E-01	1273	342

Right precuneus	-0.060	0.061	[-0.179 - 0.059]	-0.458	3.28E-01	7.53E-01	1275	345
Right rostral anterior cingulate cortex	0.025	0.061	[-0.094 - 0.144]	0.249	6.82E-01	9.23E-01	1273	345
Right rostral middle frontal gyrus	0.101	0.061	[-0.018 - 0.22]	0.786	9.94E-02	5.09E-01	1272	345
Right superior frontal gyrus	0.109	0.061	[-0.01 - 0.228]	0.805	7.50E-02	4.43E-01	1273	345
Right superior parietal cortex	-0.076	0.061	[-0.195 - 0.043]	-0.653	2.14E-01	6.66E-01	1274	345
Right superior temporal gyrus	0.172	0.061	[0.052 - 0.292]	1.324	5.42E-03	9.11E-02	1269	339
Right supramarginal gyrus	-0.011	0.061	[-0.131 - 0.109]	-0.083	8.57E-01	9.78E-01	1273	340
Right frontal pole	-0.039	0.061	[-0.158 - 0.08]	-0.462	5.28E-01	8.51E-01	1272	345
Right temporal pole	0.046	0.062	[-0.075 - 0.167]	0.708	4.66E-01	8.33E-01	1264	331
Right transverse temporal gyrus	0.148	0.061	[0.029 - 0.267]	1.604	1.58E-02	1.85E-01	1274	345
Right insula	0.015	0.061	[-0.104 - 0.134]	0.105	8.06E-01	9.63E-01	1272	345
Left hemisphere average thickness	0.021	0.061	[-0.099 - 0.141]	0.115	7.37E-01	9.37E-01	1207	342
Right hemisphere average thickness	0.044	0.061	[-0.076 - 0.164]	0.247	4.80E-01	8.39E-01	1207	342

Supplementary Table 12. Cortical surface area differences in adults (BD type-1 patients compared to BD type-2)

	Cohen's d (BD1 vs BD2)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.047	0.061	[-0.072 - 0.167]	0.827	4.43E-01	8.24E-01	1268	343
Left caudal anterior cingulate cortex	0.128	0.061	[0.009 - 0.247]	2.815	3.80E-02	3.23E-01	1272	345
Left caudal middle frontal gyrus	0.003	0.061	[-0.116 - 0.122]	0.046	9.66E-01	9.96E-01	1274	345
Left cuneus	0.104	0.061	[-0.016 - 0.223]	1.690	9.27E-02	4.91E-01	1272	344
Left entorhinal cortex	0.099	0.062	[-0.022 - 0.22]	2.146	1.12E-01	5.38E-01	1253	332
Left fusiform gyrus	0.116	0.061	[-0.003 - 0.235]	1.719	5.95E-02	3.94E-01	1273	344
Left inferior parietal cortex	-0.013	0.061	[-0.132 - 0.106]	-0.189	8.38E-01	9.73E-01	1270	345
Left inferior temporal gyrus	0.004	0.061	[-0.116 - 0.123]	0.060	9.55E-01	9.95E-01	1264	342
Left isthmus cingulate cortex	-0.066	0.061	[-0.185 - 0.053]	-1.226	2.85E-01	7.18E-01	1272	345
Left lateral occipital cortex	0.048	0.061	[-0.071 - 0.167]	0.663	4.37E-01	8.23E-01	1271	344
Left lateral orbitofrontal cortex	0.044	0.061	[-0.075 - 0.163]	0.578	4.75E-01	8.38E-01	1271	345
Left lingual gyrus	0.004	0.061	[-0.115 - 0.123]	0.063	9.46E-01	9.93E-01	1272	345
Left medial orbitofrontal cortex	-0.002	0.061	[-0.121 - 0.118]	-0.023	9.79E-01	9.97E-01	1266	342
Left middle temporal gyrus	0.004	0.061	[-0.115 - 0.123]	0.053	9.54E-01	9.95E-01	1266	345
Left parahippocampal gyrus	-0.081	0.061	[-0.201 - 0.039]	-1.298	1.91E-01	6.43E-01	1263	339
Left paracentral lobule	0.032	0.061	[-0.087 - 0.151]	0.481	6.02E-01	8.86E-01	1273	345
Left pars opercularis of inferior frontal gyrus	0.082	0.061	[-0.037 - 0.201]	1.354	1.81E-01	6.30E-01	1274	345
Left pars orbitalis of inferior frontal gyrus	0.058	0.061	[-0.061 - 0.177]	0.831	3.48E-01	7.73E-01	1274	345
Left pars triangularis of inferior frontal gyrus	0.015	0.061	[-0.104 - 0.134]	0.234	8.12E-01	9.66E-01	1274	345
Left pericalcarine cortex	0.062	0.061	[-0.057 - 0.181]	1.136	3.13E-01	7.41E-01	1271	345
Left postcentral gyrus	-0.020	0.061	[-0.14 - 0.099]	-0.254	7.43E-01	9.39E-01	1273	341
Left posterior cingulate cortex	0.062	0.061	[-0.057 - 0.181]	1.045	3.10E-01	7.40E-01	1273	345
Left precentral gyrus	0.057	0.061	[-0.062 - 0.176]	0.705	3.56E-01	7.77E-01	1273	342
Left precuneus	0.054	0.061	[-0.065 - 0.173]	0.709	3.82E-01	7.87E-01	1274	345
Left rostral anterior cingulate cortex	0.089	0.061	[-0.03 - 0.208]	1.866	1.48E-01	5.85E-01	1271	345
Left rostral middle frontal gyrus	0.101	0.061	[-0.018 - 0.22]	1.481	1.02E-01	5.14E-01	1274	345

Left superior frontal gyrus	-0.040	0.061	[-0.159 - 0.079]	-0.513	5.11E-01	8.45E-01	1272	345
Left superior parietal cortex	0.119	0.061	[0 - 0.238]	1.521	5.25E-02	3.78E-01	1273	345
Left superior temporal gyrus	0.019	0.061	[-0.101 - 0.138]	0.234	7.64E-01	9.46E-01	1268	341
Left supramarginal gyrus	0.077	0.061	[-0.042 - 0.196]	1.177	2.11E-01	6.63E-01	1274	345
Left frontal pole	-0.057	0.061	[-0.176 - 0.062]	-1.008	3.56E-01	7.77E-01	1273	345
Left temporal pole	-0.013	0.062	[-0.133 - 0.108]	-0.199	8.38E-01	9.73E-01	1261	333
Left transverse temporal gyrus	-0.003	0.061	[-0.122 - 0.116]	-0.057	9.57E-01	9.95E-01	1274	345
Left insula	-0.021	0.061	[-0.14 - 0.098]	-0.272	7.37E-01	9.37E-01	1272	345
Right banks of superior temporal sulcus	0.061	0.061	[-0.058 - 0.18]	1.137	3.23E-01	7.50E-01	1275	343
Right caudal anterior cingulate cortex	0.008	0.061	[-0.111 - 0.127]	0.181	8.94E-01	9.83E-01	1273	345
Right caudal middle frontal gyrus	0.053	0.061	[-0.066 - 0.172]	0.983	3.87E-01	7.88E-01	1274	345
Right cuneus	0.067	0.061	[-0.052 - 0.186]	1.021	2.79E-01	7.13E-01	1274	345
Right entorhinal cortex	-0.018	0.062	[-0.139 - 0.104]	-0.422	7.77E-01	9.53E-01	1257	327
Right fusiform gyrus	0.097	0.061	[-0.022 - 0.216]	1.413	1.16E-01	5.43E-01	1272	345
Right inferior parietal cortex	0.013	0.061	[-0.106 - 0.132]	0.190	8.37E-01	9.73E-01	1275	345
Right inferior temporal gyrus	0.012	0.061	[-0.107 - 0.132]	0.212	8.42E-01	9.74E-01	1270	343
Right isthmus cingulate cortex	0.042	0.061	[-0.077 - 0.161]	0.766	4.94E-01	8.43E-01	1274	344
Right lateral occipital cortex	0.093	0.061	[-0.026 - 0.212]	1.311	1.30E-01	5.63E-01	1274	345
Right lateral orbitofrontal cortex	0.086	0.061	[-0.033 - 0.205]	1.171	1.61E-01	6.01E-01	1273	345
Right lingual gyrus	0.060	0.061	[-0.059 - 0.179]	0.885	3.32E-01	7.57E-01	1275	345
Right medial orbitofrontal cortex	0.009	0.061	[-0.111 - 0.129]	0.122	8.85E-01	9.82E-01	1267	341
Right middle temporal gyrus	-0.077	0.061	[-0.196 - 0.042]	-1.183	2.12E-01	6.65E-01	1274	345
Right parahippocampal gyrus	-0.022	0.061	[-0.142 - 0.097]	-0.343	7.18E-01	9.31E-01	1268	343
Right paracentral lobule	0.071	0.061	[-0.048 - 0.19]	1.135	2.46E-01	6.91E-01	1273	345
Right pars opercularis of inferior frontal gyrus	0.012	0.061	[-0.107 - 0.131]	0.212	8.40E-01	9.74E-01	1274	345
Right pars orbitalis of inferior frontal gyrus	-0.040	0.061	[-0.159 - 0.079]	-0.564	5.18E-01	8.47E-01	1275	345
Right pars triangularis of inferior frontal gyrus	0.067	0.061	[-0.052 - 0.186]	1.151	2.79E-01	7.13E-01	1275	345
Right pericalcarine cortex	0.016	0.061	[-0.103 - 0.135]	0.298	7.92E-01	9.58E-01	1272	345
Right postcentral gyrus	0.023	0.061	[-0.096 - 0.143]	0.300	7.06E-01	9.26E-01	1272	343
Right posterior cingulate cortex	0.143	0.061	[0.024 - 0.262]	2.350	2.02E-02	2.21E-01	1273	345
Right precentral gyrus	-0.006	0.061	[-0.125 - 0.113]	-0.076	9.21E-01	9.85E-01	1273	342

Right precuneus	0.008	0.061	[-0.111 - 0.127]	0.101	9.02E-01	9.83E-01	1275	345
Right rostral anterior cingulate cortex	-0.048	0.061	[-0.167 - 0.071]	-1.061	4.35E-01	8.23E-01	1272	345
Right rostral middle frontal gyrus	0.113	0.061	[-0.006 - 0.232]	1.699	6.67E-02	4.17E-01	1272	345
Right superior frontal gyrus	-0.009	0.061	[-0.127 - 0.11]	-0.112	8.90E-01	9.82E-01	1273	345
Right superior parietal cortex	0.057	0.061	[-0.062 - 0.175]	0.698	3.58E-01	7.78E-01	1275	345
Right superior temporal gyrus	-0.021	0.061	[-0.14 - 0.099]	-0.257	7.37E-01	9.37E-01	1270	340
Right supramarginal gyrus	0.066	0.061	[-0.054 - 0.186]	1.017	2.85E-01	7.18E-01	1272	340
Right frontal pole	0.123	0.061	[0.004 - 0.242]	2.122	4.54E-02	3.46E-01	1274	345
Right temporal pole	-0.014	0.062	[-0.135 - 0.107]	-0.215	8.28E-01	9.71E-01	1264	331
Right transverse temporal gyrus	-0.083	0.061	[-0.202 - 0.036]	-1.506	1.79E-01	6.28E-01	1274	345
Right insula	-0.055	0.061	[-0.174 - 0.064]	-0.764	3.68E-01	7.82E-01	1272	345
Left hemisphere total surface area	0.089	0.063	[-0.034 - 0.212]	0.962	1.60E-01	6.01E-01	1151	326
Right hemisphere total surface area	0.081	0.063	[-0.042 - 0.204]	0.886	2.01E-01	6.57E-01	1151	326

Supplementary Table 13. Illness duration on cortical thickness in adults (all BD patients)

	Pearson's r ^a (DurOfIllness)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Patients
Left banks of superior temporal sulcus	-0.083	0.026	[-0.135 - -0.031]	-1.354	1.84E-03	4.14E-02	1429
Left caudal anterior cingulate cortex	-0.023	0.026	[-0.075 - 0.029]	-0.488	3.87E-01	7.88E-01	1432
Left caudal middle frontal gyrus	-0.031	0.026	[-0.082 - 0.021]	-0.478	2.52E-01	6.93E-01	1432
Left cuneus	-0.087	0.026	[-0.139 - -0.035]	-1.640	1.11E-03	2.67E-02	1433
Left entorhinal cortex	0.033	0.027	[-0.02 - 0.085]	0.890	2.27E-01	6.79E-01	1412
Left fusiform gyrus	-0.036	0.026	[-0.088 - 0.016]	-0.644	1.79E-01	6.28E-01	1431
Left inferior parietal cortex	-0.075	0.026	[-0.127 - -0.023]	-1.068	5.09E-03	8.95E-02	1430
Left inferior temporal gyrus	0.041	0.027	[-0.011 - 0.093]	0.853	1.27E-01	5.55E-01	1420
Left isthmus cingulate cortex	-0.006	0.026	[-0.058 - 0.046]	-0.113	8.14E-01	9.66E-01	1432
Left lateral occipital cortex	-0.072	0.026	[-0.124 - -0.021]	-1.023	6.82E-03	1.07E-01	1429
Left lateral orbitofrontal cortex	0.004	0.026	[-0.047 - 0.056]	0.071	8.69E-01	9.81E-01	1431
Left lingual gyrus	-0.055	0.026	[-0.107 - -0.003]	-0.828	3.92E-02	3.28E-01	1432
Left medial orbitofrontal cortex	-0.020	0.027	[-0.072 - 0.032]	-0.392	4.48E-01	8.25E-01	1423
Left middle temporal gyrus	-0.014	0.026	[-0.066 - 0.038]	-0.210	6.10E-01	8.88E-01	1427
Left parahippocampal gyrus	-0.032	0.027	[-0.084 - 0.02]	-0.805	2.28E-01	6.81E-01	1425
Left paracentral lobule	-0.059	0.026	[-0.111 - -0.007]	-1.005	2.75E-02	2.66E-01	1433
Left pars opercularis of inferior frontal gyrus	-0.050	0.026	[-0.102 - 0.001]	-0.775	5.90E-02	3.93E-01	1433
Left pars orbitalis of inferior frontal gyrus	-0.022	0.026	[-0.074 - 0.029]	-0.408	4.01E-01	8.00E-01	1433
Left pars triangularis of inferior frontal gyrus	-0.041	0.026	[-0.093 - 0.011]	-0.684	1.26E-01	5.53E-01	1433
Left pericalcarine cortex	-0.129	0.026	[-0.181 - -0.077]	-3.030	1.35E-06	8.12E-05	1432
Left postcentral gyrus	-0.016	0.026	[-0.068 - 0.035]	-0.268	5.39E-01	8.54E-01	1429
Left posterior cingulate cortex	-0.048	0.026	[-0.1 - 0.003]	-0.715	7.00E-02	4.27E-01	1433
Left precentral gyrus	-0.029	0.026	[-0.08 - 0.023]	-0.460	2.85E-01	7.18E-01	1430
Left precuneus	-0.077	0.026	[-0.129 - -0.025]	-1.130	3.88E-03	7.18E-02	1433
Left rostral anterior cingulate cortex	-0.091	0.026	[-0.144 - -0.04]	-1.824	6.09E-04	1.70E-02	1431
Left rostral middle frontal gyrus	-0.037	0.026	[-0.089 - 0.015]	-0.566	1.66E-01	6.10E-01	1433
Left superior frontal gyrus	-0.003	0.026	[-0.055 - 0.049]	-0.048	9.04E-01	9.83E-01	1431

Left superior parietal cortex	-0.059	0.026	[-0.111 - -0.007]	-0.920	2.75E-02	2.66E-01	1433
Left superior temporal gyrus	-0.032	0.027	[-0.084 - 0.019]	-0.460	2.25E-01	6.79E-01	1426
Left supramarginal gyrus	-0.026	0.026	[-0.078 - 0.026]	-0.385	3.26E-01	7.53E-01	1433
Left frontal pole	0.009	0.026	[-0.043 - 0.061]	0.221	7.27E-01	9.34E-01	1432
Left temporal pole	-0.004	0.027	[-0.056 - 0.048]	-0.122	8.81E-01	9.82E-01	1408
Left transverse temporal gyrus	-0.051	0.026	[-0.103 - 0.001]	-1.081	5.79E-02	3.92E-01	1433
Left insula	-0.019	0.026	[-0.07 - 0.033]	-0.259	4.86E-01	8.42E-01	1432
Right banks of superior temporal sulcus	-0.036	0.026	[-0.088 - 0.016]	-0.603	1.75E-01	6.21E-01	1433
Right caudal anterior cingulate cortex	-0.043	0.026	[-0.095 - 0.009]	-0.905	1.06E-01	5.22E-01	1432
Right caudal middle frontal gyrus	-0.033	0.026	[-0.085 - 0.019]	-0.518	2.18E-01	6.71E-01	1433
Right cuneus	-0.090	0.026	[-0.142 - -0.038]	-1.682	7.44E-04	1.99E-02	1433
Right entorhinal cortex	0.089	0.027	[0.037 - 0.141]	2.646	9.19E-04	2.38E-02	1419
Right fusiform gyrus	0.051	0.026	[-0.001 - 0.102]	0.921	5.87E-02	3.93E-01	1431
Right inferior parietal cortex	-0.042	0.026	[-0.094 - 0.01]	-0.619	1.18E-01	5.44E-01	1433
Right inferior temporal gyrus	0.055	0.027	[0.003 - 0.107]	1.225	3.98E-02	3.29E-01	1425
Right isthmus cingulate cortex	-0.003	0.026	[-0.055 - 0.049]	-0.053	9.13E-01	9.83E-01	1432
Right lateral occipital cortex	-0.048	0.026	[-0.1 - 0.004]	-0.708	7.30E-02	4.37E-01	1431
Right lateral orbitofrontal cortex	-0.044	0.026	[-0.095 - 0.008]	-0.719	1.03E-01	5.15E-01	1431
Right lingual gyrus	-0.050	0.026	[-0.102 - 0.002]	-0.748	6.06E-02	3.96E-01	1433
Right medial orbitofrontal cortex	-0.057	0.027	[-0.109 - -0.005]	-1.079	3.37E-02	3.01E-01	1422
Right middle temporal gyrus	-0.028	0.026	[-0.08 - 0.024]	-0.518	2.91E-01	7.22E-01	1432
Right parahippocampal gyrus	-0.020	0.026	[-0.072 - 0.032]	-0.472	4.58E-01	8.33E-01	1428
Right paracentral lobule	-0.035	0.026	[-0.087 - 0.017]	-0.585	1.88E-01	6.42E-01	1432
Right pars opercularis of inferior frontal gyrus	-0.058	0.026	[-0.11 - -0.006]	-0.905	2.93E-02	2.75E-01	1432
Right pars orbitalis of inferior frontal gyrus	-0.048	0.026	[-0.1 - 0.004]	-0.857	7.29E-02	4.37E-01	1433
Right pars triangularis of inferior frontal gyrus	-0.078	0.026	[-0.129 - -0.026]	-1.290	3.67E-03	6.98E-02	1433
Right pericalcarine cortex	-0.123	0.026	[-0.175 - -0.072]	-2.858	3.96E-06	2.27E-04	1431
Right postcentral gyrus	-0.035	0.026	[-0.087 - 0.017]	-0.594	1.92E-01	6.43E-01	1428
Right posterior cingulate cortex	-0.052	0.026	[-0.103 - 0]	-0.795	5.38E-02	3.79E-01	1432
Right precentral gyrus	-0.050	0.026	[-0.102 - 0.002]	-0.814	6.09E-02	3.98E-01	1428
Right precuneus	-0.056	0.026	[-0.108 - -0.004]	-0.850	3.72E-02	3.18E-01	1433

Right rostral anterior cingulate cortex	-0.061	0.026	[-0.113 - -0.009]	-1.206	2.31E-02	2.42E-01	1431
Right rostral middle frontal gyrus	-0.070	0.026	[-0.122 - -0.019]	-1.097	8.40E-03	1.26E-01	1430
Right superior frontal gyrus	-0.039	0.026	[-0.091 - 0.013]	-0.575	1.45E-01	5.79E-01	1431
Right superior parietal cortex	-0.038	0.026	[-0.09 - 0.013]	-0.657	1.51E-01	5.89E-01	1432
Right superior temporal gyrus	-0.045	0.027	[-0.097 - 0.007]	-0.690	9.46E-02	4.98E-01	1422
Right supramarginal gyrus	-0.065	0.026	[-0.117 - -0.013]	-0.969	1.56E-02	1.85E-01	1427
Right frontal pole	0.019	0.026	[-0.033 - 0.071]	0.445	4.85E-01	8.41E-01	1431
Right temporal pole	0.029	0.027	[-0.023 - 0.082]	0.909	2.77E-01	7.13E-01	1410
Right transverse temporal gyrus	-0.030	0.026	[-0.082 - 0.022]	-0.649	2.62E-01	7.03E-01	1432
Right insula	-0.009	0.026	[-0.061 - 0.043]	-0.124	7.38E-01	9.38E-01	1430
Left hemisphere average thickness	-0.056	0.027	[-0.109 - -0.003]	-0.624	3.98E-02	3.29E-01	1366
Right hemisphere average thickness	-0.056	0.027	[-0.109 - -0.003]	-0.634	4.01E-02	3.29E-01	1366

Supplementary Table 14. Illness duration on cortical surface area in adults (all BD patients)

	Pearson's r (DurOfIllness)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Patients
Left banks of superior temporal sulcus	0.014	0.026	[-0.038 - 0.066]	0.494	5.97E-01	8.84E-01	1429
Left caudal anterior cingulate cortex	-0.028	0.026	[-0.08 - 0.023]	-1.253	2.88E-01	7.21E-01	1432
Left caudal middle frontal gyrus	-0.003	0.026	[-0.055 - 0.048]	-0.119	8.98E-01	9.83E-01	1433
Left cuneus	-0.033	0.026	[-0.085 - 0.019]	-1.075	2.18E-01	6.71E-01	1432
Left entorhinal cortex	-0.021	0.027	[-0.073 - 0.031]	-0.897	4.41E-01	8.23E-01	1412
Left fusiform gyrus	-0.015	0.026	[-0.067 - 0.037]	-0.443	5.76E-01	8.75E-01	1431
Left inferior parietal cortex	-0.025	0.026	[-0.077 - 0.027]	-0.750	3.49E-01	7.73E-01	1430
Left inferior temporal gyrus	-0.052	0.027	[-0.104 - 0]	-1.782	5.42E-02	3.80E-01	1420
Left isthmus cingulate cortex	-0.035	0.026	[-0.087 - 0.017]	-1.314	1.88E-01	6.42E-01	1432
Left lateral occipital cortex	-0.050	0.026	[-0.102 - 0.002]	-1.381	6.25E-02	4.05E-01	1429
Left lateral orbitofrontal cortex	-0.071	0.026	[-0.123 - -0.019]	-1.862	8.27E-03	1.25E-01	1430
Left lingual gyrus	-0.032	0.026	[-0.084 - 0.019]	-0.981	2.25E-01	6.79E-01	1432
Left medial orbitofrontal cortex	-0.024	0.027	[-0.076 - 0.028]	-0.711	3.70E-01	7.83E-01	1423
Left middle temporal gyrus	-0.011	0.027	[-0.063 - 0.041]	-0.325	6.82E-01	9.23E-01	1426
Left parahippocampal gyrus	-0.021	0.027	[-0.073 - 0.031]	-0.665	4.38E-01	8.23E-01	1424
Left paracentral lobule	-0.015	0.026	[-0.067 - 0.037]	-0.441	5.83E-01	8.78E-01	1433
Left pars opercularis of inferior frontal gyrus	-0.011	0.026	[-0.063 - 0.041]	-0.368	6.76E-01	9.20E-01	1433
Left pars orbitalis of inferior frontal gyrus	-0.021	0.026	[-0.072 - 0.031]	-0.594	4.40E-01	8.23E-01	1433
Left pars triangularis of inferior frontal gyrus	0.004	0.026	[-0.048 - 0.055]	0.115	8.93E-01	9.83E-01	1433
Left pericalcarine cortex	-0.020	0.026	[-0.072 - 0.031]	-0.746	4.46E-01	8.24E-01	1430
Left postcentral gyrus	-0.010	0.026	[-0.061 - 0.042]	-0.239	7.22E-01	9.34E-01	1429
Left posterior cingulate cortex	-0.038	0.026	[-0.09 - 0.014]	-1.269	1.56E-01	5.95E-01	1432
Left precentral gyrus	-0.023	0.026	[-0.075 - 0.029]	-0.578	3.83E-01	7.87E-01	1430
Left precuneus	-0.053	0.026	[-0.105 - -0.002]	-1.413	4.51E-02	3.45E-01	1433
Left rostral anterior cingulate cortex	-0.003	0.026	[-0.055 - 0.049]	-0.129	9.08E-01	9.83E-01	1431
Left rostral middle frontal gyrus	-0.032	0.026	[-0.084 - 0.02]	-0.947	2.29E-01	6.82E-01	1433
Left superior frontal gyrus	-0.022	0.026	[-0.074 - 0.029]	-0.568	4.03E-01	8.00E-01	1431

Left superior parietal cortex	-0.055	0.026	[-0.107 - -0.003]	-1.400	4.00E-02	3.29E-01	1432
Left superior temporal gyrus	0.003	0.027	[-0.049 - 0.055]	0.079	9.07E-01	9.83E-01	1425
Left supramarginal gyrus	-0.039	0.026	[-0.091 - 0.013]	-1.200	1.42E-01	5.75E-01	1433
Left frontal pole	-0.029	0.026	[-0.081 - 0.023]	-1.018	2.84E-01	7.18E-01	1432
Left temporal pole	-0.011	0.027	[-0.063 - 0.041]	-0.347	6.81E-01	9.23E-01	1408
Left transverse temporal gyrus	-0.005	0.026	[-0.057 - 0.047]	-0.168	8.56E-01	9.78E-01	1433
Left insula	-0.027	0.026	[-0.079 - 0.025]	-0.711	3.12E-01	7.41E-01	1431
Right banks of superior temporal sulcus	-0.020	0.026	[-0.072 - 0.031]	-0.763	4.44E-01	8.24E-01	1433
Right caudal anterior cingulate cortex	-0.017	0.026	[-0.069 - 0.035]	-0.739	5.30E-01	8.51E-01	1431
Right caudal middle frontal gyrus	-0.020	0.026	[-0.071 - 0.032]	-0.724	4.64E-01	8.33E-01	1432
Right cuneus	0.005	0.026	[-0.047 - 0.057]	0.154	8.51E-01	9.77E-01	1433
Right entorhinal cortex	-0.071	0.027	[-0.123 - -0.019]	-3.359	8.36E-03	1.26E-01	1419
Right fusiform gyrus	-0.036	0.026	[-0.088 - 0.016]	-1.049	1.80E-01	6.28E-01	1430
Right inferior parietal cortex	-0.028	0.026	[-0.08 - 0.024]	-0.849	2.91E-01	7.22E-01	1433
Right inferior temporal gyrus	-0.028	0.027	[-0.08 - 0.024]	-0.969	2.94E-01	7.23E-01	1426
Right isthmus cingulate cortex	-0.052	0.026	[-0.103 - 0]	-1.878	5.38E-02	3.79E-01	1432
Right lateral occipital cortex	-0.018	0.026	[-0.07 - 0.033]	-0.518	4.91E-01	8.43E-01	1432
Right lateral orbitofrontal cortex	-0.035	0.026	[-0.087 - 0.017]	-0.954	1.89E-01	6.42E-01	1431
Right lingual gyrus	-0.024	0.026	[-0.076 - 0.027]	-0.724	3.61E-01	7.78E-01	1433
Right medial orbitofrontal cortex	-0.028	0.027	[-0.08 - 0.024]	-0.771	2.92E-01	7.22E-01	1422
Right middle temporal gyrus	-0.015	0.026	[-0.067 - 0.037]	-0.466	5.71E-01	8.74E-01	1432
Right parahippocampal gyrus	-0.007	0.026	[-0.059 - 0.045]	-0.219	7.91E-01	9.58E-01	1429
Right paracentral lobule	-0.004	0.026	[-0.056 - 0.048]	-0.124	8.84E-01	9.82E-01	1432
Right pars opercularis of inferior frontal gyrus	-0.036	0.026	[-0.088 - 0.016]	-1.217	1.82E-01	6.33E-01	1432
Right pars orbitalis of inferior frontal gyrus	-0.037	0.026	[-0.089 - 0.014]	-1.064	1.61E-01	6.01E-01	1433
Right pars triangularis of inferior frontal gyrus	-0.027	0.026	[-0.079 - 0.025]	-0.936	3.11E-01	7.41E-01	1433
Right pericalcarine cortex	-0.021	0.026	[-0.073 - 0.031]	-0.770	4.34E-01	8.23E-01	1431
Right postcentral gyrus	-0.044	0.026	[-0.096 - 0.008]	-1.126	1.03E-01	5.15E-01	1428
Right posterior cingulate cortex	0.002	0.026	[-0.05 - 0.054]	0.060	9.45E-01	9.93E-01	1431
Right precentral gyrus	-0.024	0.026	[-0.076 - 0.028]	-0.591	3.74E-01	7.84E-01	1428
Right precuneus	-0.044	0.026	[-0.096 - 0.008]	-1.183	9.72E-02	5.04E-01	1433

Right rostral anterior cingulate cortex	-0.005	0.026	[-0.057 - 0.047]	-0.216	8.55E-01	9.78E-01	1430
Right rostral middle frontal gyrus	-0.029	0.026	[-0.081 - 0.023]	-0.870	2.80E-01	7.13E-01	1430
Right superior frontal gyrus	-0.019	0.026	[-0.071 - 0.033]	-0.506	4.74E-01	8.37E-01	1431
Right superior parietal cortex	-0.051	0.026	[-0.103 - 0.001]	-1.254	5.77E-02	3.92E-01	1433
Right superior temporal gyrus	-0.002	0.027	[-0.054 - 0.05]	-0.054	9.35E-01	9.89E-01	1424
Right supramarginal gyrus	0.008	0.027	[-0.044 - 0.06]	0.245	7.66E-01	9.46E-01	1426
Right frontal pole	-0.051	0.026	[-0.103 - 0.001]	-1.749	5.80E-02	3.92E-01	1432
Right temporal pole	-0.018	0.027	[-0.07 - 0.034]	-0.568	5.07E-01	8.43E-01	1410
Right transverse temporal gyrus	0.012	0.026	[-0.04 - 0.064]	0.449	6.45E-01	9.08E-01	1432
Right insula	-0.038	0.026	[-0.09 - 0.013]	-1.061	1.51E-01	5.89E-01	1430
Left hemisphere total surface area	-0.051	0.028	[-0.106 - 0.003]	-1.108	6.75E-02	4.20E-01	1296
Right hemisphere total surface area	-0.047	0.028	[-0.101 - 0.008]	-1.021	9.53E-02	5.00E-01	1296

Supplementary Table 15. Effects of lithium on cortical thickness in adults (all BD patients, controlling for all other medications)

	Cohen's d ^a (BD Li FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.055	0.051	[-0.044 - 0.154]	0.445	3.04E-01	7.37E-01	889	696
Left caudal anterior cingulate cortex	0.038	0.051	[-0.061 - 0.137]	0.404	4.72E-01	8.37E-01	891	700
Left caudal middle frontal gyrus	0.120	0.051	[0.021 - 0.219]	0.937	2.43E-02	2.49E-01	892	698
Left cuneus	0.123	0.051	[0.024 - 0.222]	1.153	2.13E-02	2.28E-01	890	700
Left entorhinal cortex	-0.059	0.051	[-0.159 - 0.041]	-0.804	2.75E-01	7.13E-01	874	684
Left fusiform gyrus	-0.063	0.051	[-0.162 - 0.037]	-0.559	2.41E-01	6.90E-01	891	699
Left inferior parietal cortex	0.120	0.051	[0.021 - 0.219]	0.856	2.41E-02	2.47E-01	890	699
Left inferior temporal gyrus	-0.025	0.051	[-0.124 - 0.075]	-0.258	6.43E-01	9.08E-01	883	696
Left isthmus cingulate cortex	0.123	0.051	[0.024 - 0.222]	1.107	2.13E-02	2.28E-01	892	699
Left lateral occipital cortex	0.098	0.051	[-0.001 - 0.197]	0.693	6.56E-02	4.14E-01	890	699
Left lateral orbitofrontal cortex	0.048	0.051	[-0.051 - 0.147]	0.387	3.69E-01	7.83E-01	890	700
Left lingual gyrus	0.062	0.051	[-0.037 - 0.161]	0.466	2.44E-01	6.91E-01	890	700
Left medial orbitofrontal cortex	0.069	0.051	[-0.03 - 0.168]	0.664	1.97E-01	6.50E-01	882	699
Left middle temporal gyrus	0.020	0.051	[-0.079 - 0.119]	0.153	7.09E-01	9.28E-01	888	698
Left parahippocampal gyrus	-0.007	0.051	[-0.107 - 0.092]	-0.091	8.91E-01	9.82E-01	886	691
Left paracentral lobule	0.211	0.051	[0.111 - 0.31]	1.796	7.96E-05	3.23E-03	891	700
Left pars opercularis of inferior frontal gyrus	0.064	0.051	[-0.035 - 0.163]	0.488	2.32E-01	6.85E-01	892	700
Left pars orbitalis of inferior frontal gyrus	0.054	0.051	[-0.045 - 0.153]	0.494	3.08E-01	7.39E-01	892	700
Left pars triangularis of inferior frontal gyrus	0.110	0.051	[0.011 - 0.209]	0.919	3.90E-02	3.28E-01	892	700
Left pericalcarine cortex	0.026	0.051	[-0.073 - 0.125]	0.298	6.32E-01	9.00E-01	891	700
Left postcentral gyrus	0.105	0.051	[0.006 - 0.204]	0.857	4.87E-02	3.63E-01	887	699
Left posterior cingulate cortex	0.135	0.051	[0.036 - 0.234]	0.999	1.11E-02	1.48E-01	892	700
Left precentral gyrus	0.157	0.051	[0.058 - 0.256]	1.262	3.30E-03	6.47E-02	888	700
Left precuneus	0.183	0.051	[0.084 - 0.282]	1.337	6.07E-04	1.70E-02	892	700
Left rostral anterior cingulate cortex	-0.013	0.051	[-0.112 - 0.086]	-0.132	8.03E-01	9.62E-01	891	698
Left rostral middle frontal gyrus	0.067	0.051	[-0.032 - 0.166]	0.511	2.10E-01	6.62E-01	892	700

Left superior frontal gyrus	0.179	0.051	[0.08 - 0.279]	1.326	7.76E-04	2.07E-02	890	700
Left superior parietal cortex	0.202	0.051	[0.102 - 0.301]	1.571	1.60E-04	5.95E-03	892	700
Left superior temporal gyrus	0.042	0.051	[-0.057 - 0.141]	0.297	4.32E-01	8.22E-01	889	695
Left supramarginal gyrus	0.104	0.051	[0.005 - 0.203]	0.761	5.16E-02	3.76E-01	892	700
Left frontal pole	-0.020	0.051	[-0.119 - 0.079]	-0.242	7.02E-01	9.26E-01	891	700
Left temporal pole	0.002	0.051	[-0.098 - 0.101]	0.025	9.76E-01	9.97E-01	876	691
Left transverse temporal gyrus	0.017	0.050	[-0.082 - 0.116]	0.181	7.50E-01	9.42E-01	892	700
Left insula	0.055	0.051	[-0.044 - 0.154]	0.381	3.04E-01	7.37E-01	891	700
Right banks of superior temporal sulcus	0.038	0.051	[-0.061 - 0.137]	0.314	4.78E-01	8.39E-01	889	700
Right caudal anterior cingulate cortex	-0.016	0.051	[-0.115 - 0.083]	-0.165	7.68E-01	9.47E-01	891	700
Right caudal middle frontal gyrus	0.177	0.051	[0.077 - 0.276]	1.390	9.32E-04	2.40E-02	892	700
Right cuneus	0.120	0.051	[0.021 - 0.219]	1.120	2.41E-02	2.47E-01	891	700
Right entorhinal cortex	-0.083	0.051	[-0.183 - 0.017]	-1.227	1.25E-01	5.53E-01	869	687
Right fusiform gyrus	0.046	0.051	[-0.053 - 0.145]	0.420	3.87E-01	7.88E-01	890	700
Right inferior parietal cortex	0.118	0.051	[0.019 - 0.217]	0.870	2.74E-02	2.66E-01	891	700
Right inferior temporal gyrus	0.022	0.051	[-0.077 - 0.121]	0.241	6.84E-01	9.24E-01	886	698
Right isthmus cingulate cortex	0.064	0.051	[-0.035 - 0.163]	0.584	2.27E-01	6.79E-01	892	699
Right lateral occipital cortex	0.083	0.051	[-0.016 - 0.182]	0.613	1.19E-01	5.47E-01	892	698
Right lateral orbitofrontal cortex	0.084	0.051	[-0.016 - 0.183]	0.689	1.17E-01	5.44E-01	890	700
Right lingual gyrus	0.056	0.051	[-0.043 - 0.155]	0.419	2.91E-01	7.22E-01	892	700
Right medial orbitofrontal cortex	0.039	0.051	[-0.061 - 0.138]	0.366	4.69E-01	8.34E-01	881	699
Right middle temporal gyrus	0.070	0.051	[-0.029 - 0.169]	0.642	1.89E-01	6.42E-01	892	698
Right parahippocampal gyrus	0.081	0.051	[-0.019 - 0.18]	0.960	1.31E-01	5.63E-01	886	695
Right paracentral lobule	0.163	0.051	[0.064 - 0.262]	1.354	2.26E-03	4.89E-02	892	699
Right pars opercularis of inferior frontal gyrus	0.108	0.051	[0.009 - 0.207]	0.841	4.21E-02	3.35E-01	891	700
Right pars orbitalis of inferior frontal gyrus	0.048	0.051	[-0.051 - 0.147]	0.432	3.64E-01	7.80E-01	892	700
Right pars triangularis of inferior frontal gyrus	0.138	0.051	[0.039 - 0.237]	1.148	9.46E-03	1.34E-01	892	700
Right pericalcarine cortex	0.130	0.051	[0.031 - 0.229]	1.498	1.50E-02	1.81E-01	891	699
Right postcentral gyrus	0.140	0.051	[0.041 - 0.24]	1.192	8.54E-03	1.27E-01	887	699
Right posterior cingulate cortex	0.075	0.051	[-0.024 - 0.174]	0.580	1.58E-01	5.97E-01	892	699
Right precentral gyrus	0.169	0.051	[0.07 - 0.269]	1.372	1.53E-03	3.54E-02	887	700

Right precuneus	0.129	0.051	[0.03 - 0.228]	0.982	1.58E-02	1.85E-01	892	700
Right rostral anterior cingulate cortex	0.027	0.051	[-0.072 - 0.126]	0.270	6.09E-01	8.88E-01	890	700
Right rostral middle frontal gyrus	0.097	0.051	[-0.002 - 0.196]	0.751	6.98E-02	4.27E-01	890	699
Right superior frontal gyrus	0.138	0.051	[0.039 - 0.237]	1.015	9.74E-03	1.37E-01	890	700
Right superior parietal cortex	0.188	0.051	[0.088 - 0.287]	1.607	4.39E-04	1.34E-02	891	700
Right superior temporal gyrus	0.115	0.051	[0.015 - 0.214]	0.882	3.21E-02	2.91E-01	885	695
Right supramarginal gyrus	0.119	0.051	[0.02 - 0.219]	0.891	2.56E-02	2.59E-01	888	697
Right frontal pole	-0.118	0.051	[-0.217 - -0.018]	-1.401	2.76E-02	2.66E-01	889	700
Right temporal pole	-0.020	0.051	[-0.12 - 0.08]	-0.309	7.11E-01	9.29E-01	876	691
Right transverse temporal gyrus	-0.004	0.051	[-0.103 - 0.095]	-0.049	9.33E-01	9.89E-01	892	699
Right insula	0.035	0.051	[-0.064 - 0.134]	0.244	5.09E-01	8.43E-01	891	700
Left hemisphere average thickness	0.135	0.052	[0.033 - 0.236]	0.748	1.29E-02	1.65E-01	872	653
Right hemisphere average thickness	0.148	0.052	[0.046 - 0.249]	0.833	6.44E-03	1.03E-01	872	653

Supplementary Table 16. Effects of lithium on cortical surface area in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD Li FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.013	0.051	[-0.112 - 0.087]	-0.221	8.13E-01	9.66E-01	888	696
Left caudal anterior cingulate cortex	-0.005	0.051	[-0.104 - 0.094]	-0.102	9.31E-01	9.89E-01	891	699
Left caudal middle frontal gyrus	0.092	0.051	[-0.007 - 0.191]	1.592	8.54E-02	4.75E-01	892	700
Left cuneus	0.063	0.051	[-0.036 - 0.162]	1.021	2.41E-01	6.90E-01	890	699
Left entorhinal cortex	-0.023	0.051	[-0.123 - 0.077]	-0.493	6.72E-01	9.20E-01	875	683
Left fusiform gyrus	0.000	0.051	[-0.099 - 0.099]	0.000	1.00E+00	1.00E+00	891	699
Left inferior parietal cortex	0.095	0.051	[-0.004 - 0.194]	1.422	7.53E-02	4.43E-01	890	698
Left inferior temporal gyrus	0.013	0.051	[-0.086 - 0.113]	0.230	8.03E-01	9.62E-01	883	696
Left isthmus cingulate cortex	-0.055	0.051	[-0.154 - 0.044]	-1.032	3.00E-01	7.31E-01	892	698
Left lateral occipital cortex	-0.033	0.051	[-0.132 - 0.066]	-0.455	5.39E-01	8.54E-01	890	698
Left lateral orbitofrontal cortex	-0.035	0.051	[-0.134 - 0.064]	-0.466	5.08E-01	8.43E-01	890	700
Left lingual gyrus	-0.004	0.051	[-0.103 - 0.095]	-0.054	9.46E-01	9.93E-01	890	700
Left medial orbitofrontal cortex	-0.010	0.051	[-0.109 - 0.089]	-0.145	8.55E-01	9.78E-01	882	699
Left middle temporal gyrus	-0.007	0.051	[-0.106 - 0.092]	-0.102	8.97E-01	9.83E-01	888	696
Left parahippocampal gyrus	-0.003	0.051	[-0.103 - 0.096]	-0.051	9.52E-01	9.95E-01	886	691
Left paracentral lobule	0.170	0.051	[0.07 - 0.269]	2.545	1.50E-03	3.51E-02	891	700
Left pars opercularis of inferior frontal gyrus	-0.054	0.051	[-0.153 - 0.045]	-0.887	3.13E-01	7.41E-01	892	700
Left pars orbitalis of inferior frontal gyrus	0.027	0.050	[-0.072 - 0.126]	0.395	6.07E-01	8.88E-01	892	700
Left pars triangularis of inferior frontal gyrus	0.021	0.050	[-0.078 - 0.12]	0.333	6.96E-01	9.26E-01	892	700
Left pericalcarine cortex	0.061	0.051	[-0.038 - 0.16]	1.119	2.52E-01	6.93E-01	890	699
Left postcentral gyrus	0.061	0.051	[-0.038 - 0.161]	0.770	2.51E-01	6.93E-01	887	699
Left posterior cingulate cortex	-0.043	0.051	[-0.142 - 0.056]	-0.726	4.17E-01	8.10E-01	892	699
Left precentral gyrus	0.078	0.051	[-0.021 - 0.178]	0.971	1.42E-01	5.75E-01	888	700
Left precuneus	0.064	0.051	[-0.035 - 0.163]	0.843	2.31E-01	6.85E-01	892	700
Left rostral anterior cingulate cortex	0.028	0.051	[-0.071 - 0.127]	0.590	5.98E-01	8.84E-01	891	698
Left rostral middle frontal gyrus	0.097	0.051	[-0.002 - 0.196]	1.434	6.80E-02	4.21E-01	892	700

Left superior frontal gyrus	0.109	0.051	[0.01 - 0.208]	1.383	4.15E-02	3.33E-01	890	700
Left superior parietal cortex	0.066	0.051	[-0.033 - 0.165]	0.838	2.18E-01	6.71E-01	892	699
Left superior temporal gyrus	0.068	0.051	[-0.031 - 0.167]	0.857	2.05E-01	6.59E-01	889	693
Left supramarginal gyrus	-0.044	0.051	[-0.143 - 0.055]	-0.679	4.05E-01	8.01E-01	892	700
Left frontal pole	0.066	0.051	[-0.033 - 0.165]	1.179	2.14E-01	6.66E-01	891	700
Left temporal pole	0.039	0.051	[-0.061 - 0.139]	0.609	4.69E-01	8.34E-01	876	691
Left transverse temporal gyrus	0.028	0.050	[-0.071 - 0.127]	0.491	5.95E-01	8.82E-01	892	700
Left insula	0.060	0.051	[-0.04 - 0.159]	0.783	2.65E-01	7.04E-01	891	699
Right banks of superior temporal sulcus	0.020	0.051	[-0.079 - 0.119]	0.366	7.13E-01	9.30E-01	889	700
Right caudal anterior cingulate cortex	0.003	0.051	[-0.096 - 0.102]	0.073	9.50E-01	9.94E-01	891	699
Right caudal middle frontal gyrus	0.129	0.051	[0.03 - 0.228]	2.389	1.55E-02	1.84E-01	892	699
Right cuneus	0.062	0.051	[-0.037 - 0.161]	0.956	2.43E-01	6.91E-01	891	700
Right entorhinal cortex	0.029	0.051	[-0.071 - 0.129]	0.680	5.95E-01	8.82E-01	869	686
Right fusiform gyrus	0.051	0.051	[-0.048 - 0.15]	0.741	3.42E-01	7.69E-01	889	700
Right inferior parietal cortex	0.029	0.050	[-0.07 - 0.128]	0.438	5.86E-01	8.79E-01	892	700
Right inferior temporal gyrus	0.044	0.051	[-0.055 - 0.143]	0.759	4.10E-01	8.04E-01	887	698
Right isthmus cingulate cortex	-0.071	0.051	[-0.17 - 0.028]	-1.296	1.82E-01	6.33E-01	892	698
Right lateral occipital cortex	-0.068	0.051	[-0.167 - 0.031]	-0.965	2.00E-01	6.55E-01	892	699
Right lateral orbitofrontal cortex	-0.004	0.051	[-0.103 - 0.095]	-0.053	9.42E-01	9.92E-01	890	700
Right lingual gyrus	0.011	0.050	[-0.088 - 0.11]	0.158	8.42E-01	9.74E-01	892	700
Right medial orbitofrontal cortex	0.052	0.051	[-0.047 - 0.152]	0.714	3.28E-01	7.53E-01	881	699
Right middle temporal gyrus	-0.014	0.051	[-0.113 - 0.085]	-0.217	7.92E-01	9.58E-01	892	699
Right parahippocampal gyrus	-0.027	0.051	[-0.127 - 0.072]	-0.423	6.08E-01	8.88E-01	887	696
Right paracentral lobule	0.097	0.051	[-0.002 - 0.196]	1.548	6.87E-02	4.23E-01	892	698
Right pars opercularis of inferior frontal gyrus	0.045	0.051	[-0.054 - 0.144]	0.767	4.00E-01	7.98E-01	891	700
Right pars orbitalis of inferior frontal gyrus	-0.010	0.050	[-0.109 - 0.089]	-0.148	8.45E-01	9.75E-01	892	700
Right pars triangularis of inferior frontal gyrus	0.054	0.051	[-0.045 - 0.153]	0.936	3.10E-01	7.40E-01	891	700
Right pericalcarine cortex	0.110	0.051	[0.011 - 0.209]	2.018	4.02E-02	3.29E-01	891	699
Right postcentral gyrus	0.091	0.051	[-0.009 - 0.19]	1.167	9.02E-02	4.87E-01	887	699
Right posterior cingulate cortex	-0.007	0.051	[-0.106 - 0.092]	-0.116	8.95E-01	9.83E-01	892	698
Right precentral gyrus	0.098	0.051	[-0.001 - 0.198]	1.221	6.55E-02	4.14E-01	887	700

Right precuneus	0.063	0.051	[-0.036 - 0.162]	0.838	2.39E-01	6.90E-01	892	700
Right rostral anterior cingulate cortex	-0.012	0.051	[-0.111 - 0.087]	-0.261	8.25E-01	9.70E-01	890	699
Right rostral middle frontal gyrus	0.032	0.051	[-0.067 - 0.131]	0.476	5.54E-01	8.63E-01	890	699
Right superior frontal gyrus	0.088	0.051	[-0.011 - 0.187]	1.157	1.01E-01	5.11E-01	890	700
Right superior parietal cortex	0.069	0.051	[-0.03 - 0.168]	0.856	1.94E-01	6.45E-01	892	700
Right superior temporal gyrus	0.047	0.051	[-0.052 - 0.146]	0.581	3.81E-01	7.87E-01	886	696
Right supramarginal gyrus	0.004	0.051	[-0.096 - 0.103]	0.057	9.45E-01	9.93E-01	888	696
Right frontal pole	0.006	0.051	[-0.093 - 0.105]	0.111	9.04E-01	9.83E-01	891	700
Right temporal pole	-0.061	0.051	[-0.161 - 0.039]	-0.970	2.56E-01	6.97E-01	877	690
Right transverse temporal gyrus	0.127	0.051	[0.028 - 0.226]	2.308	1.77E-02	1.99E-01	891	700
Right insula	0.041	0.051	[-0.058 - 0.14]	0.566	4.42E-01	8.24E-01	891	699
Left hemisphere total surface area	0.084	0.053	[-0.02 - 0.187]	0.902	1.32E-01	5.63E-01	812	641
Right hemisphere total surface area	0.086	0.053	[-0.018 - 0.189]	0.933	1.23E-01	5.53E-01	812	641

Supplementary Table 17. Effects of antiepileptics on cortical thickness in adults (all BD patients, controlling for all other medications)

	Cohen's d ^a (BD AntiEpileptic FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.191	0.053	[-0.295 - -0.087]	-1.548	4.77E-04	1.41E-02	927	574
Left caudal anterior cingulate cortex	0.025	0.053	[-0.079 - 0.129]	0.262	6.48E-01	9.10E-01	932	575
Left caudal middle frontal gyrus	-0.181	0.053	[-0.285 - -0.077]	-1.411	9.11E-04	2.37E-02	931	575
Left cuneus	-0.262	0.053	[-0.366 - -0.158]	-2.461	1.62E-06	9.57E-05	930	576
Left entorhinal cortex	-0.060	0.054	[-0.165 - 0.045]	-0.819	2.76E-01	7.13E-01	911	564
Left fusiform gyrus	-0.237	0.053	[-0.342 - -0.133]	-2.121	1.39E-05	6.63E-04	930	576
Left inferior parietal cortex	-0.282	0.053	[-0.386 - -0.177]	-2.005	2.57E-07	1.70E-05	930	575
Left inferior temporal gyrus	-0.082	0.053	[-0.186 - 0.023]	-0.851	1.35E-01	5.67E-01	925	570
Left isthmus cingulate cortex	-0.111	0.053	[-0.215 - -0.007]	-1.001	4.16E-02	3.33E-01	932	575
Left lateral occipital cortex	-0.360	0.053	[-0.465 - -0.255]	-2.539	5.35E-11	6.32E-09	930	575
Left lateral orbitofrontal cortex	-0.086	0.053	[-0.19 - 0.018]	-0.691	1.16E-01	5.43E-01	932	574
Left lingual gyrus	-0.295	0.053	[-0.4 - -0.191]	-2.216	6.79E-08	4.94E-06	931	575
Left medial orbitofrontal cortex	-0.039	0.053	[-0.144 - 0.065]	-0.380	4.70E-01	8.35E-01	928	570
Left middle temporal gyrus	-0.135	0.053	[-0.24 - -0.031]	-1.042	1.31E-02	1.66E-01	929	574
Left parahippocampal gyrus	-0.079	0.053	[-0.183 - 0.026]	-0.980	1.50E-01	5.87E-01	923	570
Left paracentral lobule	-0.301	0.053	[-0.405 - -0.197]	-2.565	3.75E-08	3.02E-06	931	576
Left pars opercularis of inferior frontal gyrus	-0.079	0.053	[-0.183 - 0.025]	-0.605	1.47E-01	5.85E-01	932	576
Left pars orbitalis of inferior frontal gyrus	-0.078	0.053	[-0.182 - 0.026]	-0.707	1.53E-01	5.92E-01	932	576
Left pars triangularis of inferior frontal gyrus	-0.152	0.053	[-0.256 - -0.048]	-1.268	5.34E-03	9.11E-02	932	576
Left pericalcarine cortex	-0.224	0.053	[-0.329 - -0.12]	-2.621	3.95E-05	1.66E-03	932	575
Left postcentral gyrus	-0.233	0.053	[-0.337 - -0.128]	-1.896	2.04E-05	8.87E-04	926	576
Left posterior cingulate cortex	-0.076	0.053	[-0.18 - 0.028]	-0.564	1.60E-01	6.01E-01	932	576
Left precentral gyrus	-0.208	0.053	[-0.312 - -0.104]	-1.675	1.36E-04	5.31E-03	928	576
Left precuneus	-0.250	0.053	[-0.354 - -0.146]	-1.829	4.59E-06	2.59E-04	932	576
Left rostral anterior cingulate cortex	-0.075	0.053	[-0.179 - 0.029]	-0.741	1.71E-01	6.14E-01	929	576
Left rostral middle frontal gyrus	-0.192	0.053	[-0.296 - -0.088]	-1.467	4.34E-04	1.33E-02	932	576

Left superior frontal gyrus	-0.241	0.053	[-0.345 - -0.137]	-1.782	1.03E-05	5.20E-04	932	574
Left superior parietal cortex	-0.298	0.053	[-0.402 - -0.194]	-2.324	5.03E-08	3.81E-06	932	576
Left superior temporal gyrus	-0.164	0.053	[-0.268 - -0.059]	-1.158	2.74E-03	5.70E-02	929	571
Left supramarginal gyrus	-0.207	0.053	[-0.311 - -0.103]	-1.518	1.47E-04	5.67E-03	932	576
Left frontal pole	-0.085	0.053	[-0.189 - 0.019]	-1.011	1.17E-01	5.44E-01	932	575
Left temporal pole	-0.050	0.054	[-0.155 - 0.055]	-0.756	3.61E-01	7.78E-01	920	563
Left transverse temporal gyrus	-0.135	0.053	[-0.239 - -0.031]	-1.438	1.32E-02	1.66E-01	932	576
Left insula	-0.093	0.053	[-0.197 - 0.011]	-0.645	8.88E-02	4.84E-01	932	575
Right banks of superior temporal sulcus	-0.167	0.053	[-0.271 - -0.063]	-1.388	2.21E-03	4.81E-02	929	576
Right caudal anterior cingulate cortex	-0.061	0.053	[-0.165 - 0.043]	-0.638	2.63E-01	7.03E-01	931	576
Right caudal middle frontal gyrus	-0.222	0.053	[-0.326 - -0.118]	-1.749	4.65E-05	1.93E-03	932	576
Right cuneus	-0.293	0.053	[-0.398 - -0.189]	-2.733	8.04E-08	5.73E-06	931	576
Right entorhinal cortex	0.008	0.054	[-0.097 - 0.113]	0.123	8.80E-01	9.82E-01	903	569
Right fusiform gyrus	-0.115	0.053	[-0.219 - -0.011]	-1.051	3.41E-02	3.04E-01	931	575
Right inferior parietal cortex	-0.247	0.053	[-0.352 - -0.143]	-1.829	5.95E-06	3.21E-04	931	576
Right inferior temporal gyrus	-0.090	0.053	[-0.194 - 0.014]	-0.998	9.97E-02	5.09E-01	927	573
Right isthmus cingulate cortex	-0.172	0.053	[-0.276 - -0.068]	-1.562	1.59E-03	3.66E-02	932	575
Right lateral occipital cortex	-0.357	0.053	[-0.462 - -0.253]	-2.635	7.24E-11	8.29E-09	930	576
Right lateral orbitofrontal cortex	-0.024	0.053	[-0.128 - 0.08]	-0.198	6.59E-01	9.13E-01	932	574
Right lingual gyrus	-0.301	0.053	[-0.405 - -0.196]	-2.239	3.89E-08	3.07E-06	932	576
Right medial orbitofrontal cortex	-0.066	0.053	[-0.17 - 0.039]	-0.622	2.29E-01	6.82E-01	926	571
Right middle temporal gyrus	-0.140	0.053	[-0.244 - -0.036]	-1.281	1.04E-02	1.41E-01	931	575
Right parahippocampal gyrus	0.032	0.053	[-0.072 - 0.136]	0.383	5.55E-01	8.65E-01	925	572
Right paracentral lobule	-0.326	0.053	[-0.431 - -0.222]	-2.712	2.57E-09	2.32E-07	932	575
Right pars opercularis of inferior frontal gyrus	-0.103	0.053	[-0.207 - 0.001]	-0.798	5.88E-02	3.93E-01	931	576
Right pars orbitalis of inferior frontal gyrus	-0.110	0.053	[-0.213 - -0.006]	-0.978	4.42E-02	3.41E-01	932	576
Right pars triangularis of inferior frontal gyrus	-0.124	0.053	[-0.228 - -0.02]	-1.032	2.23E-02	2.35E-01	932	576
Right pericalcarine cortex	-0.136	0.053	[-0.24 - -0.032]	-1.570	1.25E-02	1.61E-01	930	576
Right postcentral gyrus	-0.233	0.053	[-0.337 - -0.129]	-1.977	2.01E-05	8.84E-04	927	576
Right posterior cingulate cortex	-0.132	0.053	[-0.236 - -0.028]	-1.019	1.52E-02	1.83E-01	931	576
Right precentral gyrus	-0.239	0.053	[-0.343 - -0.135]	-1.936	1.23E-05	5.96E-04	927	576

Right precuneus	-0.270	0.053	[-0.374 - -0.166]	-2.059	7.81E-07	4.84E-05	932	576
Right rostral anterior cingulate cortex	-0.044	0.053	[-0.148 - 0.06]	-0.435	4.20E-01	8.13E-01	930	576
Right rostral middle frontal gyrus	-0.196	0.053	[-0.301 - -0.092]	-1.526	3.19E-04	1.04E-02	931	574
Right superior frontal gyrus	-0.269	0.053	[-0.374 - -0.165]	-1.982	8.56E-07	5.22E-05	932	574
Right superior parietal cortex	-0.310	0.053	[-0.414 - -0.205]	-2.651	1.54E-08	1.32E-06	932	575
Right superior temporal gyrus	-0.147	0.053	[-0.251 - -0.042]	-1.129	7.25E-03	1.13E-01	923	573
Right supramarginal gyrus	-0.243	0.053	[-0.347 - -0.138]	-1.815	9.12E-06	4.66E-04	928	573
Right frontal pole	-0.063	0.053	[-0.167 - 0.041]	-0.755	2.45E-01	6.91E-01	931	574
Right temporal pole	-0.047	0.053	[-0.152 - 0.058]	-0.729	3.93E-01	7.95E-01	916	567
Right transverse temporal gyrus	-0.156	0.053	[-0.26 - -0.052]	-1.686	4.22E-03	7.74E-02	931	576
Right insula	-0.095	0.053	[-0.199 - 0.009]	-0.660	8.07E-02	4.61E-01	932	575
Left hemisphere average thickness	-0.316	0.055	[-0.423 - -0.208]	-1.749	1.57E-08	1.32E-06	906	535
Right hemisphere average thickness	-0.311	0.055	[-0.418 - -0.203]	-1.751	2.59E-08	2.13E-06	906	535

Supplementary Table 18. Effects of antiepileptics on cortical surface area in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD AntiEpileptic FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.039	0.053	[-0.065 - 0.143]	0.678	4.77E-01	8.38E-01	926	574
Left caudal anterior cingulate cortex	-0.021	0.053	[-0.125 - 0.083]	-0.468	6.97E-01	9.26E-01	931	575
Left caudal middle frontal gyrus	0.010	0.053	[-0.094 - 0.114]	0.173	8.55E-01	9.78E-01	932	576
Left cuneus	-0.013	0.053	[-0.117 - 0.091]	-0.206	8.17E-01	9.67E-01	929	576
Left entorhinal cortex	-0.027	0.054	[-0.132 - 0.078]	-0.587	6.22E-01	8.95E-01	911	564
Left fusiform gyrus	-0.007	0.053	[-0.111 - 0.097]	-0.099	9.03E-01	9.83E-01	930	576
Left inferior parietal cortex	-0.001	0.053	[-0.105 - 0.103]	-0.018	9.82E-01	9.97E-01	929	575
Left inferior temporal gyrus	-0.005	0.053	[-0.11 - 0.099]	-0.091	9.23E-01	9.86E-01	925	570
Left isthmus cingulate cortex	-0.006	0.053	[-0.11 - 0.097]	-0.121	9.06E-01	9.83E-01	931	575
Left lateral occipital cortex	-0.033	0.053	[-0.137 - 0.071]	-0.456	5.47E-01	8.60E-01	929	575
Left lateral orbitofrontal cortex	-0.056	0.053	[-0.16 - 0.048]	-0.736	3.06E-01	7.38E-01	932	574
Left lingual gyrus	-0.055	0.053	[-0.159 - 0.049]	-0.834	3.12E-01	7.41E-01	931	575
Left medial orbitofrontal cortex	-0.029	0.053	[-0.133 - 0.076]	-0.426	5.99E-01	8.84E-01	928	570
Left middle temporal gyrus	-0.020	0.053	[-0.124 - 0.085]	-0.291	7.20E-01	9.32E-01	928	573
Left parahippocampal gyrus	0.016	0.053	[-0.088 - 0.121]	0.257	7.69E-01	9.48E-01	924	569
Left paracentral lobule	-0.027	0.053	[-0.131 - 0.077]	-0.400	6.24E-01	8.95E-01	931	576
Left pars opercularis of inferior frontal gyrus	-0.098	0.053	[-0.202 - 0.006]	-1.611	7.27E-02	4.37E-01	932	576
Left pars orbitalis of inferior frontal gyrus	-0.032	0.053	[-0.135 - 0.072]	-0.455	5.62E-01	8.69E-01	932	576
Left pars triangularis of inferior frontal gyrus	-0.096	0.053	[-0.2 - 0.008]	-1.529	7.93E-02	4.57E-01	932	576
Left pericalcarine cortex	-0.009	0.053	[-0.113 - 0.095]	-0.159	8.74E-01	9.82E-01	930	575
Left postcentral gyrus	-0.031	0.053	[-0.136 - 0.073]	-0.395	5.64E-01	8.70E-01	926	576
Left posterior cingulate cortex	0.048	0.053	[-0.056 - 0.152]	0.808	3.76E-01	7.84E-01	931	576
Left precentral gyrus	-0.095	0.053	[-0.199 - 0.009]	-1.175	8.21E-02	4.68E-01	928	576
Left precuneus	0.001	0.053	[-0.103 - 0.105]	0.014	9.84E-01	9.97E-01	932	576
Left rostral anterior cingulate cortex	-0.015	0.053	[-0.119 - 0.089]	-0.312	7.85E-01	9.57E-01	929	576
Left rostral middle frontal gyrus	0.076	0.053	[-0.028 - 0.18]	1.116	1.64E-01	6.06E-01	932	576

Left superior frontal gyrus	-0.046	0.053	[-0.15 - 0.058]	-0.579	4.03E-01	8.00E-01	932	574
Left superior parietal cortex	-0.013	0.053	[-0.117 - 0.091]	-0.165	8.12E-01	9.66E-01	931	576
Left superior temporal gyrus	0.070	0.053	[-0.034 - 0.174]	0.882	2.01E-01	6.58E-01	927	571
Left supramarginal gyrus	0.135	0.053	[0.031 - 0.239]	2.059	1.35E-02	1.69E-01	932	576
Left frontal pole	0.007	0.053	[-0.097 - 0.111]	0.122	9.00E-01	9.83E-01	932	575
Left temporal pole	0.119	0.054	[0.014 - 0.224]	1.858	3.08E-02	2.83E-01	920	563
Left transverse temporal gyrus	0.015	0.053	[-0.089 - 0.119]	0.256	7.86E-01	9.57E-01	932	576
Left insula	-0.014	0.053	[-0.118 - 0.09]	-0.180	8.02E-01	9.62E-01	931	575
Right banks of superior temporal sulcus	0.049	0.053	[-0.055 - 0.153]	0.908	3.73E-01	7.84E-01	929	576
Right caudal anterior cingulate cortex	-0.018	0.053	[-0.122 - 0.086]	-0.389	7.46E-01	9.40E-01	930	576
Right caudal middle frontal gyrus	0.061	0.053	[-0.042 - 0.165]	1.136	2.59E-01	7.01E-01	931	576
Right cuneus	0.010	0.053	[-0.094 - 0.114]	0.155	8.53E-01	9.78E-01	931	576
Right entorhinal cortex	-0.038	0.054	[-0.143 - 0.067]	-0.895	4.92E-01	8.43E-01	903	568
Right fusiform gyrus	-0.012	0.053	[-0.117 - 0.092]	-0.183	8.19E-01	9.68E-01	931	574
Right inferior parietal cortex	0.018	0.053	[-0.086 - 0.122]	0.274	7.39E-01	9.38E-01	932	576
Right inferior temporal gyrus	0.054	0.053	[-0.05 - 0.158]	0.925	3.26E-01	7.53E-01	928	573
Right isthmus cingulate cortex	-0.053	0.053	[-0.157 - 0.051]	-0.962	3.32E-01	7.57E-01	931	575
Right lateral occipital cortex	-0.066	0.053	[-0.17 - 0.038]	-0.930	2.26E-01	6.79E-01	931	576
Right lateral orbitofrontal cortex	0.012	0.053	[-0.092 - 0.116]	0.161	8.28E-01	9.71E-01	932	574
Right lingual gyrus	-0.023	0.053	[-0.127 - 0.081]	-0.346	6.68E-01	9.19E-01	932	576
Right medial orbitofrontal cortex	-0.021	0.053	[-0.125 - 0.083]	-0.288	6.99E-01	9.26E-01	926	571
Right middle temporal gyrus	0.032	0.053	[-0.072 - 0.136]	0.493	5.57E-01	8.66E-01	931	576
Right parahippocampal gyrus	-0.050	0.053	[-0.154 - 0.054]	-0.773	3.59E-01	7.78E-01	927	572
Right paracentral lobule	-0.043	0.053	[-0.147 - 0.061]	-0.690	4.27E-01	8.20E-01	930	576
Right pars opercularis of inferior frontal gyrus	-0.006	0.053	[-0.11 - 0.097]	-0.110	9.06E-01	9.83E-01	931	576
Right pars orbitalis of inferior frontal gyrus	-0.068	0.053	[-0.172 - 0.036]	-0.971	2.10E-01	6.62E-01	932	576
Right pars triangularis of inferior frontal gyrus	-0.069	0.053	[-0.173 - 0.035]	-1.190	2.07E-01	6.60E-01	931	576
Right pericalcarine cortex	0.052	0.053	[-0.052 - 0.155]	0.948	3.45E-01	7.70E-01	930	576
Right postcentral gyrus	-0.020	0.053	[-0.124 - 0.084]	-0.254	7.18E-01	9.31E-01	927	576
Right posterior cingulate cortex	0.085	0.053	[-0.019 - 0.189]	1.403	1.18E-01	5.44E-01	930	576
Right precentral gyrus	-0.087	0.053	[-0.191 - 0.017]	-1.077	1.11E-01	5.36E-01	927	576

Right precuneus	-0.028	0.053	[-0.132 - 0.076]	-0.370	6.11E-01	8.88E-01	932	576
Right rostral anterior cingulate cortex	0.007	0.053	[-0.097 - 0.111]	0.146	9.03E-01	9.83E-01	929	576
Right rostral middle frontal gyrus	0.077	0.053	[-0.027 - 0.181]	1.156	1.59E-01	6.01E-01	931	574
Right superior frontal gyrus	0.020	0.053	[-0.084 - 0.124]	0.267	7.11E-01	9.29E-01	932	574
Right superior parietal cortex	-0.010	0.053	[-0.114 - 0.094]	-0.125	8.52E-01	9.78E-01	932	576
Right superior temporal gyrus	0.012	0.053	[-0.092 - 0.117]	0.154	8.20E-01	9.68E-01	925	573
Right supramarginal gyrus	0.024	0.053	[-0.081 - 0.128]	0.363	6.65E-01	9.18E-01	927	573
Right frontal pole	0.011	0.053	[-0.093 - 0.115]	0.190	8.40E-01	9.74E-01	932	575
Right temporal pole	0.006	0.053	[-0.099 - 0.111]	0.097	9.11E-01	9.83E-01	915	568
Right transverse temporal gyrus	0.006	0.053	[-0.098 - 0.11]	0.109	9.12E-01	9.83E-01	932	575
Right insula	-0.011	0.053	[-0.115 - 0.093]	-0.153	8.40E-01	9.74E-01	931	575
Left hemisphere total surface area	-0.018	0.056	[-0.128 - 0.091]	-0.199	7.46E-01	9.40E-01	853	516
Right hemisphere total surface area	-0.009	0.056	[-0.118 - 0.101]	-0.093	8.80E-01	9.82E-01	853	516

Supplementary Table 19. Effects of typical antipsychotics on cortical thickness in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD Gen1AntiPsych FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.024	0.118	[-0.255 - 0.207]	-0.194	8.42E-01	9.74E-01	1414	76
Left caudal anterior cingulate cortex	-0.096	0.116	[-0.324 - 0.132]	-1.015	4.19E-01	8.12E-01	1418	78
Left caudal middle frontal gyrus	-0.065	0.116	[-0.293 - 0.163]	-0.505	5.86E-01	8.79E-01	1417	78
Left cuneus	0.017	0.116	[-0.211 - 0.245]	0.162	8.85E-01	9.82E-01	1417	78
Left entorhinal cortex	-0.073	0.117	[-0.303 - 0.156]	-1.005	5.40E-01	8.54E-01	1391	77
Left fusiform gyrus	-0.132	0.116	[-0.36 - 0.096]	-1.183	2.66E-01	7.04E-01	1417	78
Left inferior parietal cortex	-0.042	0.116	[-0.27 - 0.186]	-0.298	7.25E-01	9.34E-01	1416	78
Left inferior temporal gyrus	-0.083	0.118	[-0.314 - 0.148]	-0.866	4.90E-01	8.43E-01	1408	76
Left isthmus cingulate cortex	0.094	0.116	[-0.134 - 0.322]	0.847	4.29E-01	8.21E-01	1419	78
Left lateral occipital cortex	-0.001	0.116	[-0.229 - 0.227]	-0.005	9.96E-01	9.98E-01	1416	78
Left lateral orbitofrontal cortex	0.067	0.117	[-0.163 - 0.296]	0.538	5.77E-01	8.75E-01	1418	77
Left lingual gyrus	-0.046	0.116	[-0.274 - 0.182]	-0.347	6.98E-01	9.26E-01	1417	78
Left medial orbitofrontal cortex	-0.109	0.116	[-0.337 - 0.119]	-1.054	3.58E-01	7.78E-01	1410	78
Left middle temporal gyrus	-0.171	0.118	[-0.402 - 0.06]	-1.316	1.56E-01	5.95E-01	1416	76
Left parahippocampal gyrus	-0.283	0.116	[-0.511 - -0.054]	-3.522	1.76E-02	1.99E-01	1410	78
Left paracentral lobule	-0.048	0.116	[-0.276 - 0.18]	-0.406	6.88E-01	9.25E-01	1418	78
Left pars opercularis of inferior frontal gyrus	-0.041	0.116	[-0.269 - 0.187]	-0.315	7.30E-01	9.35E-01	1419	78
Left pars orbitalis of inferior frontal gyrus	-0.120	0.116	[-0.348 - 0.108]	-1.095	3.11E-01	7.41E-01	1419	78
Left pars triangularis of inferior frontal gyrus	-0.131	0.116	[-0.359 - 0.097]	-1.095	2.70E-01	7.08E-01	1419	78
Left pericalcarine cortex	-0.046	0.117	[-0.275 - 0.183]	-0.536	7.01E-01	9.26E-01	1419	77
Left postcentral gyrus	-0.073	0.117	[-0.302 - 0.156]	-0.594	5.42E-01	8.56E-01	1414	77
Left posterior cingulate cortex	-0.017	0.116	[-0.245 - 0.211]	-0.128	8.84E-01	9.82E-01	1419	78
Left precentral gyrus	0.009	0.116	[-0.219 - 0.237]	0.073	9.40E-01	9.92E-01	1415	78
Left precuneus	0.010	0.116	[-0.218 - 0.238]	0.071	9.35E-01	9.89E-01	1419	78
Left rostral anterior cingulate cortex	-0.131	0.117	[-0.36 - 0.099]	-1.298	2.75E-01	7.13E-01	1417	77
Left rostral middle frontal gyrus	-0.095	0.116	[-0.322 - 0.133]	-0.723	4.27E-01	8.20E-01	1419	78

Left superior frontal gyrus	-0.182	0.116	[-0.41 - 0.046]	-1.343	1.27E-01	5.55E-01	1417	78
Left superior parietal cortex	-0.016	0.116	[-0.243 - 0.212]	-0.121	8.96E-01	9.83E-01	1419	78
Left superior temporal gyrus	-0.026	0.117	[-0.256 - 0.203]	-0.186	8.26E-01	9.70E-01	1412	77
Left supramarginal gyrus	-0.026	0.116	[-0.254 - 0.201]	-0.194	8.24E-01	9.70E-01	1419	78
Left frontal pole	0.052	0.116	[-0.176 - 0.28]	0.617	6.62E-01	9.15E-01	1418	78
Left temporal pole	-0.088	0.117	[-0.317 - 0.142]	-1.322	4.63E-01	8.33E-01	1395	77
Left transverse temporal gyrus	-0.059	0.116	[-0.287 - 0.169]	-0.629	6.20E-01	8.94E-01	1419	78
Left insula	-0.146	0.117	[-0.376 - 0.083]	-1.019	2.21E-01	6.73E-01	1419	77
Right banks of superior temporal sulcus	0.066	0.116	[-0.162 - 0.294]	0.545	5.82E-01	8.78E-01	1416	78
Right caudal anterior cingulate cortex	-0.133	0.116	[-0.36 - 0.095]	-1.388	2.65E-01	7.04E-01	1418	78
Right caudal middle frontal gyrus	-0.112	0.116	[-0.34 - 0.116]	-0.884	3.45E-01	7.71E-01	1419	78
Right cuneus	0.054	0.116	[-0.174 - 0.282]	0.502	6.51E-01	9.12E-01	1418	78
Right entorhinal cortex	-0.079	0.117	[-0.309 - 0.15]	-1.178	5.07E-01	8.43E-01	1386	77
Right fusiform gyrus	-0.165	0.116	[-0.393 - 0.063]	-1.502	1.66E-01	6.08E-01	1417	78
Right inferior parietal cortex	-0.132	0.116	[-0.36 - 0.096]	-0.979	2.66E-01	7.04E-01	1418	78
Right inferior temporal gyrus	-0.195	0.118	[-0.426 - 0.036]	-2.167	1.06E-01	5.20E-01	1413	76
Right isthmus cingulate cortex	-0.027	0.116	[-0.255 - 0.201]	-0.247	8.19E-01	9.68E-01	1419	78
Right lateral occipital cortex	-0.112	0.117	[-0.341 - 0.118]	-0.823	3.51E-01	7.74E-01	1418	77
Right lateral orbitofrontal cortex	-0.119	0.117	[-0.348 - 0.111]	-0.980	3.21E-01	7.47E-01	1418	77
Right lingual gyrus	0.070	0.116	[-0.158 - 0.297]	0.518	5.59E-01	8.67E-01	1419	78
Right medial orbitofrontal cortex	-0.025	0.116	[-0.253 - 0.203]	-0.238	8.33E-01	9.72E-01	1410	78
Right middle temporal gyrus	-0.224	0.116	[-0.452 - 0.004]	-2.057	5.94E-02	3.94E-01	1417	78
Right parahippocampal gyrus	-0.142	0.116	[-0.37 - 0.086]	-1.683	2.34E-01	6.87E-01	1410	78
Right paracentral lobule	0.023	0.116	[-0.205 - 0.251]	0.192	8.46E-01	9.76E-01	1418	78
Right pars opercularis of inferior frontal gyrus	-0.162	0.116	[-0.39 - 0.066]	-1.257	1.73E-01	6.18E-01	1418	78
Right pars orbitalis of inferior frontal gyrus	-0.082	0.116	[-0.31 - 0.146]	-0.734	4.89E-01	8.43E-01	1419	78
Right pars triangularis of inferior frontal gyrus	0.074	0.116	[-0.154 - 0.302]	0.610	5.36E-01	8.53E-01	1419	78
Right pericalcarine cortex	0.227	0.116	[-0.001 - 0.456]	2.625	5.60E-02	3.88E-01	1417	78
Right postcentral gyrus	-0.116	0.117	[-0.345 - 0.113]	-0.985	3.32E-01	7.57E-01	1415	77
Right posterior cingulate cortex	0.007	0.117	[-0.222 - 0.237]	0.056	9.52E-01	9.95E-01	1419	77
Right precentral gyrus	-0.030	0.116	[-0.258 - 0.198]	-0.245	7.99E-01	9.62E-01	1414	78

Right precuneus	0.100	0.116	[-0.128 - 0.328]	0.759	4.03E-01	8.00E-01	1419	78
Right rostral anterior cingulate cortex	-0.067	0.116	[-0.294 - 0.161]	-0.660	5.76E-01	8.75E-01	1417	78
Right rostral middle frontal gyrus	-0.140	0.116	[-0.368 - 0.088]	-1.087	2.39E-01	6.90E-01	1416	78
Right superior frontal gyrus	-0.143	0.116	[-0.371 - 0.085]	-1.054	2.29E-01	6.82E-01	1417	78
Right superior parietal cortex	-0.098	0.116	[-0.326 - 0.13]	-0.842	4.09E-01	8.04E-01	1418	78
Right superior temporal gyrus	-0.034	0.117	[-0.263 - 0.196]	-0.258	7.79E-01	9.55E-01	1408	77
Right supramarginal gyrus	-0.194	0.116	[-0.423 - 0.034]	-1.454	1.02E-01	5.14E-01	1412	78
Right frontal pole	0.268	0.116	[0.04 - 0.496]	3.194	2.44E-02	2.49E-01	1416	78
Right temporal pole	-0.133	0.117	[-0.363 - 0.096]	-2.074	2.65E-01	7.04E-01	1395	77
Right transverse temporal gyrus	-0.096	0.117	[-0.325 - 0.134]	-1.033	4.25E-01	8.17E-01	1419	77
Right insula	-0.195	0.117	[-0.425 - 0.034]	-1.355	1.03E-01	5.15E-01	1419	77
Left hemisphere average thickness	-0.096	0.117	[-0.326 - 0.133]	-0.534	4.21E-01	8.14E-01	1379	77
Right hemisphere average thickness	-0.128	0.117	[-0.358 - 0.101]	-0.724	2.84E-01	7.18E-01	1379	77

Supplementary Table 20. Effects of typical antipsychotics on cortical surface area in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD Gen1AntiPsych FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.026	0.118	[-0.204 - 0.257]	0.463	8.26E-01	9.70E-01	1413	76
Left caudal anterior cingulate cortex	0.168	0.116	[-0.06 - 0.396]	3.697	1.59E-01	6.01E-01	1417	78
Left caudal middle frontal gyrus	0.150	0.116	[-0.078 - 0.378]	2.601	2.08E-01	6.62E-01	1419	78
Left cuneus	0.183	0.116	[-0.045 - 0.411]	2.979	1.26E-01	5.53E-01	1416	78
Left entorhinal cortex	-0.042	0.117	[-0.272 - 0.187]	-0.916	7.24E-01	9.34E-01	1391	77
Left fusiform gyrus	0.308	0.116	[0.08 - 0.536]	4.563	9.79E-03	1.37E-01	1417	78
Left inferior parietal cortex	0.366	0.117	[0.138 - 0.595]	5.483	2.13E-03	4.68E-02	1415	78
Left inferior temporal gyrus	0.269	0.118	[0.038 - 0.5]	4.628	2.60E-02	2.61E-01	1408	76
Left isthmus cingulate cortex	0.287	0.116	[0.059 - 0.515]	5.349	1.61E-02	1.88E-01	1418	78
Left lateral occipital cortex	0.025	0.117	[-0.204 - 0.255]	0.352	8.32E-01	9.72E-01	1416	77
Left lateral orbitofrontal cortex	0.099	0.117	[-0.131 - 0.328]	1.299	4.11E-01	8.04E-01	1418	77
Left lingual gyrus	0.270	0.116	[0.041 - 0.498]	4.072	2.38E-02	2.46E-01	1417	78
Left medial orbitofrontal cortex	0.224	0.116	[-0.004 - 0.452]	3.314	6.02E-02	3.96E-01	1410	78
Left middle temporal gyrus	0.439	0.118	[0.208 - 0.67]	6.508	2.83E-04	9.39E-03	1414	76
Left parahippocampal gyrus	0.262	0.116	[0.034 - 0.49]	4.194	2.80E-02	2.69E-01	1410	78
Left paracentral lobule	-0.129	0.116	[-0.357 - 0.099]	-1.942	2.77E-01	7.13E-01	1418	78
Left pars opercularis of inferior frontal gyrus	0.163	0.116	[-0.065 - 0.391]	2.683	1.72E-01	6.15E-01	1419	78
Left pars orbitalis of inferior frontal gyrus	-0.062	0.116	[-0.29 - 0.166]	-0.890	6.04E-01	8.87E-01	1419	78
Left pars triangularis of inferior frontal gyrus	0.177	0.116	[-0.051 - 0.405]	2.825	1.38E-01	5.70E-01	1419	78
Left pericalcarine cortex	0.305	0.117	[0.076 - 0.535]	5.587	1.09E-02	1.46E-01	1417	77
Left postcentral gyrus	0.098	0.117	[-0.131 - 0.327]	1.230	4.13E-01	8.07E-01	1414	77
Left posterior cingulate cortex	-0.144	0.116	[-0.372 - 0.084]	-2.411	2.27E-01	6.79E-01	1418	78
Left precentral gyrus	0.020	0.116	[-0.208 - 0.248]	0.243	8.69E-01	9.81E-01	1415	78
Left precuneus	0.082	0.116	[-0.146 - 0.309]	1.075	4.94E-01	8.43E-01	1419	78
Left rostral anterior cingulate cortex	0.312	0.116	[0.084 - 0.54]	6.537	8.91E-03	1.31E-01	1416	78
Left rostral middle frontal gyrus	0.104	0.116	[-0.124 - 0.332]	1.532	3.83E-01	7.87E-01	1419	78

Left superior frontal gyrus	0.243	0.116	[0.015 - 0.471]	3.089	4.14E-02	3.33E-01	1417	78
Left superior parietal cortex	0.151	0.116	[-0.077 - 0.379]	1.930	2.04E-01	6.58E-01	1418	78
Left superior temporal gyrus	0.004	0.118	[-0.227 - 0.235]	0.049	9.74E-01	9.97E-01	1411	76
Left supramarginal gyrus	0.180	0.116	[-0.048 - 0.408]	2.750	1.31E-01	5.63E-01	1419	78
Left frontal pole	0.230	0.116	[0.002 - 0.458]	4.084	5.38E-02	3.79E-01	1418	78
Left temporal pole	0.195	0.117	[-0.034 - 0.425]	3.049	1.04E-01	5.16E-01	1395	77
Left transverse temporal gyrus	0.061	0.116	[-0.167 - 0.289]	1.056	6.09E-01	8.88E-01	1419	78
Left insula	0.170	0.117	[-0.06 - 0.399]	2.230	1.57E-01	5.97E-01	1418	77
Right banks of superior temporal sulcus	0.218	0.116	[-0.01 - 0.446]	4.066	6.78E-02	4.21E-01	1416	78
Right caudal anterior cingulate cortex	-0.017	0.116	[-0.245 - 0.211]	-0.368	8.88E-01	9.82E-01	1417	78
Right caudal middle frontal gyrus	0.308	0.116	[0.08 - 0.536]	5.696	9.77E-03	1.37E-01	1418	78
Right cuneus	0.242	0.116	[0.014 - 0.47]	3.707	4.27E-02	3.36E-01	1418	78
Right entorhinal cortex	-0.042	0.117	[-0.271 - 0.188]	-0.987	7.28E-01	9.34E-01	1386	77
Right fusiform gyrus	0.255	0.116	[0.026 - 0.483]	3.722	3.28E-02	2.94E-01	1416	78
Right inferior parietal cortex	0.184	0.116	[-0.044 - 0.412]	2.775	1.22E-01	5.52E-01	1419	78
Right inferior temporal gyrus	0.140	0.118	[-0.091 - 0.371]	2.413	2.46E-01	6.91E-01	1414	76
Right isthmus cingulate cortex	0.215	0.116	[-0.013 - 0.443]	3.912	7.15E-02	4.34E-01	1418	78
Right lateral occipital cortex	0.130	0.116	[-0.098 - 0.358]	1.831	2.76E-01	7.13E-01	1418	78
Right lateral orbitofrontal cortex	0.190	0.117	[-0.039 - 0.42]	2.586	1.13E-01	5.38E-01	1418	77
Right lingual gyrus	0.283	0.116	[0.055 - 0.511]	4.199	1.76E-02	1.99E-01	1419	78
Right medial orbitofrontal cortex	0.166	0.116	[-0.063 - 0.394]	2.258	1.65E-01	6.07E-01	1410	78
Right middle temporal gyrus	0.156	0.116	[-0.072 - 0.384]	2.401	1.91E-01	6.43E-01	1418	78
Right parahippocampal gyrus	0.283	0.116	[0.055 - 0.512]	4.368	1.75E-02	1.99E-01	1412	78
Right paracentral lobule	0.075	0.116	[-0.153 - 0.303]	1.191	5.30E-01	8.51E-01	1417	78
Right pars opercularis of inferior frontal gyrus	0.135	0.116	[-0.093 - 0.363]	2.300	2.58E-01	7.00E-01	1418	78
Right pars orbitalis of inferior frontal gyrus	0.132	0.116	[-0.096 - 0.36]	1.875	2.68E-01	7.06E-01	1419	78
Right pars triangularis of inferior frontal gyrus	0.117	0.116	[-0.111 - 0.345]	2.024	3.26E-01	7.53E-01	1418	78
Right pericalcarine cortex	0.109	0.116	[-0.119 - 0.337]	1.999	3.62E-01	7.78E-01	1417	78
Right postcentral gyrus	0.134	0.117	[-0.096 - 0.363]	1.726	2.64E-01	7.03E-01	1415	77
Right posterior cingulate cortex	-0.013	0.117	[-0.242 - 0.217]	-0.208	9.16E-01	9.83E-01	1418	77
Right precentral gyrus	0.234	0.116	[0.006 - 0.463]	2.907	4.93E-02	3.65E-01	1414	78

Right precuneus	0.013	0.116	[-0.215 - 0.241]	0.172	9.14E-01	9.83E-01	1419	78
Right rostral anterior cingulate cortex	0.333	0.116	[0.105 - 0.561]	7.361	5.24E-03	9.09E-02	1416	78
Right rostral middle frontal gyrus	0.096	0.116	[-0.132 - 0.324]	1.445	4.20E-01	8.13E-01	1416	78
Right superior frontal gyrus	0.249	0.116	[0.021 - 0.477]	3.293	3.65E-02	3.14E-01	1417	78
Right superior parietal cortex	0.137	0.116	[-0.091 - 0.365]	1.696	2.49E-01	6.92E-01	1419	78
Right superior temporal gyrus	0.245	0.116	[0.017 - 0.473]	3.034	3.98E-02	3.29E-01	1409	78
Right supramarginal gyrus	0.162	0.116	[-0.066 - 0.39]	2.492	1.74E-01	6.19E-01	1411	78
Right frontal pole	-0.058	0.116	[-0.286 - 0.17]	-0.997	6.27E-01	8.97E-01	1418	78
Right temporal pole	0.382	0.117	[0.152 - 0.612]	6.061	1.47E-03	3.46E-02	1395	77
Right transverse temporal gyrus	0.077	0.116	[-0.151 - 0.305]	1.407	5.17E-01	8.47E-01	1418	78
Right insula	0.176	0.118	[-0.055 - 0.407]	2.433	1.44E-01	5.79E-01	1419	76
Left hemisphere total surface area	0.291	0.120	[0.057 - 0.525]	3.135	1.77E-02	1.99E-01	1310	74
Right hemisphere total surface area	0.281	0.120	[0.046 - 0.515]	3.057	2.20E-02	2.33E-01	1310	74

Supplementary Table 21. Effects of atypical antipsychotics on cortical thickness in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD Gen2AntiPsych FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.087	0.055	[-0.194 - 0.021]	-0.704	1.22E-01	5.52E-01	989	502
Left caudal anterior cingulate cortex	-0.113	0.055	[-0.22 - -0.006]	-1.193	4.36E-02	3.40E-01	994	503
Left caudal middle frontal gyrus	-0.127	0.055	[-0.234 - -0.019]	-0.988	2.39E-02	2.46E-01	994	502
Left cuneus	-0.087	0.055	[-0.194 - 0.021]	-0.813	1.22E-01	5.52E-01	992	504
Left entorhinal cortex	-0.002	0.055	[-0.11 - 0.106]	-0.029	9.70E-01	9.97E-01	971	498
Left fusiform gyrus	-0.035	0.055	[-0.142 - 0.072]	-0.314	5.30E-01	8.51E-01	992	504
Left inferior parietal cortex	-0.029	0.055	[-0.136 - 0.079]	-0.203	6.10E-01	8.88E-01	992	503
Left inferior temporal gyrus	-0.064	0.055	[-0.172 - 0.043]	-0.668	2.53E-01	6.94E-01	984	501
Left isthmus cingulate cortex	-0.083	0.055	[-0.19 - 0.024]	-0.749	1.38E-01	5.70E-01	994	504
Left lateral occipital cortex	-0.020	0.055	[-0.127 - 0.087]	-0.140	7.23E-01	9.34E-01	992	503
Left lateral orbitofrontal cortex	-0.082	0.055	[-0.189 - 0.025]	-0.664	1.42E-01	5.75E-01	992	504
Left lingual gyrus	-0.071	0.055	[-0.179 - 0.036]	-0.536	2.02E-01	6.58E-01	993	503
Left medial orbitofrontal cortex	-0.003	0.055	[-0.11 - 0.105]	-0.028	9.58E-01	9.95E-01	989	500
Left middle temporal gyrus	-0.063	0.055	[-0.17 - 0.044]	-0.484	2.62E-01	7.03E-01	992	501
Left parahippocampal gyrus	-0.044	0.055	[-0.151 - 0.064]	-0.542	4.38E-01	8.23E-01	986	503
Left paracentral lobule	-0.073	0.055	[-0.18 - 0.035]	-0.618	1.95E-01	6.45E-01	993	504
Left pars opercularis of inferior frontal gyrus	-0.047	0.055	[-0.154 - 0.06]	-0.362	3.99E-01	7.98E-01	994	504
Left pars orbitalis of inferior frontal gyrus	-0.025	0.055	[-0.133 - 0.082]	-0.230	6.51E-01	9.12E-01	994	504
Left pars triangularis of inferior frontal gyrus	-0.062	0.055	[-0.169 - 0.045]	-0.518	2.68E-01	7.06E-01	994	504
Left pericalcarine cortex	0.004	0.055	[-0.103 - 0.111]	0.044	9.47E-01	9.93E-01	993	504
Left postcentral gyrus	-0.055	0.055	[-0.162 - 0.053]	-0.445	3.29E-01	7.55E-01	989	503
Left posterior cingulate cortex	-0.031	0.055	[-0.138 - 0.076]	-0.227	5.83E-01	8.78E-01	994	504
Left precentral gyrus	-0.049	0.055	[-0.157 - 0.058]	-0.397	3.78E-01	7.84E-01	990	504
Left precuneus	-0.050	0.055	[-0.158 - 0.057]	-0.368	3.68E-01	7.82E-01	994	504
Left rostral anterior cingulate cortex	-0.008	0.055	[-0.115 - 0.099]	-0.080	8.85E-01	9.82E-01	993	502
Left rostral middle frontal gyrus	-0.089	0.055	[-0.196 - 0.018]	-0.681	1.12E-01	5.37E-01	994	504

Left superior frontal gyrus	-0.140	0.055	[-0.247 - -0.033]	-1.034	1.25E-02	1.61E-01	992	504
Left superior parietal cortex	-0.018	0.055	[-0.125 - 0.089]	-0.141	7.46E-01	9.40E-01	994	504
Left superior temporal gyrus	-0.116	0.055	[-0.224 - -0.009]	-0.820	3.86E-02	3.28E-01	988	502
Left supramarginal gyrus	-0.046	0.055	[-0.153 - 0.061]	-0.336	4.13E-01	8.07E-01	994	504
Left frontal pole	-0.073	0.055	[-0.18 - 0.034]	-0.864	1.93E-01	6.44E-01	993	504
Left temporal pole	0.088	0.055	[-0.02 - 0.196]	1.327	1.19E-01	5.46E-01	979	494
Left transverse temporal gyrus	-0.076	0.055	[-0.183 - 0.031]	-0.810	1.74E-01	6.20E-01	994	504
Left insula	-0.073	0.055	[-0.18 - 0.035]	-0.506	1.94E-01	6.45E-01	993	504
Right banks of superior temporal sulcus	-0.048	0.055	[-0.155 - 0.06]	-0.395	3.96E-01	7.98E-01	991	504
Right caudal anterior cingulate cortex	-0.029	0.055	[-0.136 - 0.079]	-0.300	6.09E-01	8.88E-01	993	504
Right caudal middle frontal gyrus	-0.035	0.055	[-0.142 - 0.072]	-0.277	5.30E-01	8.51E-01	994	504
Right cuneus	-0.064	0.055	[-0.172 - 0.043]	-0.600	2.50E-01	6.93E-01	993	504
Right entorhinal cortex	0.023	0.055	[-0.085 - 0.131]	0.336	6.88E-01	9.25E-01	964	500
Right fusiform gyrus	-0.045	0.055	[-0.152 - 0.062]	-0.409	4.23E-01	8.15E-01	994	502
Right inferior parietal cortex	-0.070	0.055	[-0.178 - 0.037]	-0.521	2.08E-01	6.62E-01	993	504
Right inferior temporal gyrus	0.010	0.055	[-0.097 - 0.118]	0.112	8.57E-01	9.78E-01	988	502
Right isthmus cingulate cortex	-0.060	0.055	[-0.167 - 0.048]	-0.540	2.88E-01	7.21E-01	994	504
Right lateral occipital cortex	-0.084	0.055	[-0.191 - 0.023]	-0.619	1.34E-01	5.66E-01	992	504
Right lateral orbitofrontal cortex	-0.065	0.055	[-0.172 - 0.042]	-0.537	2.44E-01	6.91E-01	992	504
Right lingual gyrus	-0.115	0.055	[-0.223 - -0.008]	-0.860	3.91E-02	3.28E-01	994	504
Right medial orbitofrontal cortex	-0.052	0.055	[-0.159 - 0.056]	-0.488	3.59E-01	7.78E-01	988	501
Right middle temporal gyrus	0.031	0.055	[-0.077 - 0.138]	0.281	5.84E-01	8.78E-01	992	504
Right parahippocampal gyrus	-0.058	0.055	[-0.165 - 0.05]	-0.685	3.04E-01	7.37E-01	986	503
Right paracentral lobule	-0.064	0.055	[-0.171 - 0.043]	-0.533	2.53E-01	6.93E-01	994	503
Right pars opercularis of inferior frontal gyrus	-0.016	0.055	[-0.123 - 0.092]	-0.121	7.81E-01	9.55E-01	994	503
Right pars orbitalis of inferior frontal gyrus	-0.120	0.055	[-0.228 - -0.013]	-1.074	3.17E-02	2.89E-01	994	504
Right pars triangularis of inferior frontal gyrus	-0.015	0.055	[-0.123 - 0.092]	-0.128	7.82E-01	9.55E-01	994	504
Right pericalcarine cortex	-0.028	0.055	[-0.136 - 0.079]	-0.327	6.12E-01	8.89E-01	993	503
Right postcentral gyrus	-0.066	0.055	[-0.173 - 0.041]	-0.561	2.38E-01	6.89E-01	990	503
Right posterior cingulate cortex	-0.088	0.055	[-0.195 - 0.019]	-0.678	1.16E-01	5.43E-01	993	504
Right precentral gyrus	-0.014	0.055	[-0.121 - 0.094]	-0.110	8.09E-01	9.64E-01	989	504

Right precuneus	-0.094	0.055	[-0.202 - 0.013]	-0.721	9.14E-02	4.87E-01	994	504
Right rostral anterior cingulate cortex	0.053	0.055	[-0.054 - 0.16]	0.525	3.44E-01	7.70E-01	993	503
Right rostral middle frontal gyrus	-0.038	0.055	[-0.146 - 0.069]	-0.298	4.93E-01	8.43E-01	992	503
Right superior frontal gyrus	-0.128	0.055	[-0.235 - -0.021]	-0.942	2.23E-02	2.35E-01	992	504
Right superior parietal cortex	-0.020	0.055	[-0.127 - 0.087]	-0.169	7.24E-01	9.34E-01	993	504
Right superior temporal gyrus	-0.067	0.055	[-0.174 - 0.041]	-0.513	2.35E-01	6.87E-01	984	502
Right supramarginal gyrus	-0.068	0.055	[-0.175 - 0.039]	-0.509	2.24E-01	6.79E-01	988	503
Right frontal pole	-0.033	0.055	[-0.14 - 0.074]	-0.393	5.56E-01	8.66E-01	991	504
Right temporal pole	0.050	0.055	[-0.058 - 0.158]	0.773	3.77E-01	7.84E-01	976	497
Right transverse temporal gyrus	-0.043	0.055	[-0.15 - 0.064]	-0.468	4.39E-01	8.23E-01	993	504
Right insula	-0.103	0.055	[-0.211 - 0.004]	-0.716	6.51E-02	4.14E-01	993	504
Left hemisphere average thickness	-0.096	0.055	[-0.204 - 0.013]	-0.530	9.06E-02	4.87E-01	958	499
Right hemisphere average thickness	-0.081	0.055	[-0.19 - 0.027]	-0.459	1.50E-01	5.87E-01	958	499

Supplementary Table 22. Effects of atypical antipsychotics on cortical surface area in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD Gen2AntiPsych FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.032	0.055	[-0.075 - 0.14]	0.565	5.65E-01	8.70E-01	988	502
Left caudal anterior cingulate cortex	-0.056	0.055	[-0.164 - 0.051]	-1.243	3.15E-01	7.44E-01	994	502
Left caudal middle frontal gyrus	-0.113	0.055	[-0.22 - -0.006]	-1.961	4.37E-02	3.40E-01	994	504
Left cuneus	-0.064	0.055	[-0.171 - 0.043]	-1.047	2.53E-01	6.93E-01	991	504
Left entorhinal cortex	-0.086	0.055	[-0.194 - 0.022]	-1.861	1.28E-01	5.57E-01	971	498
Left fusiform gyrus	-0.019	0.055	[-0.126 - 0.089]	-0.277	7.39E-01	9.38E-01	992	504
Left inferior parietal cortex	-0.087	0.055	[-0.194 - 0.021]	-1.294	1.23E-01	5.53E-01	991	503
Left inferior temporal gyrus	-0.083	0.055	[-0.19 - 0.025]	-1.425	1.41E-01	5.75E-01	984	501
Left isthmus cingulate cortex	-0.074	0.055	[-0.181 - 0.033]	-1.375	1.88E-01	6.42E-01	994	503
Left lateral occipital cortex	-0.074	0.055	[-0.182 - 0.033]	-1.027	1.86E-01	6.40E-01	991	503
Left lateral orbitofrontal cortex	-0.134	0.055	[-0.241 - -0.027]	-1.763	1.70E-02	1.96E-01	992	504
Left lingual gyrus	-0.016	0.055	[-0.123 - 0.091]	-0.243	7.74E-01	9.51E-01	993	503
Left medial orbitofrontal cortex	-0.037	0.055	[-0.144 - 0.071]	-0.545	5.12E-01	8.45E-01	989	500
Left middle temporal gyrus	-0.074	0.055	[-0.181 - 0.034]	-1.090	1.91E-01	6.43E-01	991	500
Left parahippocampal gyrus	-0.066	0.055	[-0.174 - 0.041]	-1.057	2.40E-01	6.90E-01	987	502
Left paracentral lobule	-0.086	0.055	[-0.193 - 0.021]	-1.293	1.24E-01	5.53E-01	993	504
Left pars opercularis of inferior frontal gyrus	-0.001	0.055	[-0.108 - 0.106]	-0.022	9.81E-01	9.97E-01	994	504
Left pars orbitalis of inferior frontal gyrus	-0.112	0.055	[-0.22 - -0.005]	-1.618	4.52E-02	3.45E-01	994	504
Left pars triangularis of inferior frontal gyrus	-0.027	0.055	[-0.134 - 0.08]	-0.431	6.30E-01	8.99E-01	994	504
Left pericalcarine cortex	-0.081	0.055	[-0.188 - 0.026]	-1.484	1.48E-01	5.85E-01	992	503
Left postcentral gyrus	-0.146	0.055	[-0.253 - -0.038]	-1.830	9.36E-03	1.34E-01	989	503
Left posterior cingulate cortex	-0.085	0.055	[-0.192 - 0.022]	-1.425	1.29E-01	5.60E-01	994	503
Left precentral gyrus	-0.124	0.055	[-0.231 - -0.017]	-1.538	2.70E-02	2.64E-01	990	504
Left precuneus	-0.043	0.055	[-0.15 - 0.065]	-0.562	4.46E-01	8.24E-01	994	504
Left rostral anterior cingulate cortex	-0.074	0.055	[-0.182 - 0.033]	-1.559	1.85E-01	6.38E-01	994	501

Left rostral middle frontal gyrus	-0.162	0.055	[-0.27 - -0.055]	-2.389	3.85E-03	7.16E-02	994	504
Left superior frontal gyrus	-0.083	0.055	[-0.191 - 0.024]	-1.060	1.37E-01	5.69E-01	992	504
Left superior parietal cortex	-0.033	0.055	[-0.14 - 0.075]	-0.415	5.61E-01	8.69E-01	993	504
Left superior temporal gyrus	-0.127	0.055	[-0.235 - -0.02]	-1.608	2.35E-02	2.45E-01	986	502
Left supramarginal gyrus	-0.090	0.055	[-0.197 - 0.017]	-1.371	1.09E-01	5.29E-01	994	504
Left frontal pole	0.003	0.055	[-0.104 - 0.11]	0.057	9.54E-01	9.95E-01	993	504
Left temporal pole	-0.023	0.055	[-0.131 - 0.086]	-0.352	6.90E-01	9.26E-01	979	494
Left transverse temporal gyrus	-0.113	0.055	[-0.22 - -0.006]	-1.958	4.37E-02	3.40E-01	994	504
Left insula	-0.081	0.055	[-0.189 - 0.026]	-1.068	1.48E-01	5.85E-01	993	503
Right banks of superior temporal sulcus	-0.003	0.055	[-0.11 - 0.105]	-0.049	9.62E-01	9.96E-01	991	504
Right caudal anterior cingulate cortex	0.046	0.055	[-0.061 - 0.153]	1.012	4.11E-01	8.05E-01	993	503
Right caudal middle frontal gyrus	-0.024	0.055	[-0.132 - 0.083]	-0.451	6.63E-01	9.16E-01	993	504
Right cuneus	-0.091	0.055	[-0.198 - 0.016]	-1.398	1.04E-01	5.17E-01	993	504
Right entorhinal cortex	-0.017	0.055	[-0.125 - 0.091]	-0.397	7.67E-01	9.47E-01	964	500
Right fusiform gyrus	-0.036	0.055	[-0.143 - 0.072]	-0.522	5.25E-01	8.49E-01	994	501
Right inferior parietal cortex	-0.101	0.055	[-0.208 - 0.007]	-1.514	7.29E-02	4.37E-01	994	504
Right inferior temporal gyrus	-0.082	0.055	[-0.19 - 0.025]	-1.420	1.43E-01	5.76E-01	989	502
Right isthmus cingulate cortex	-0.034	0.055	[-0.141 - 0.073]	-0.621	5.43E-01	8.57E-01	993	504
Right lateral occipital cortex	-0.129	0.055	[-0.237 - -0.022]	-1.821	2.13E-02	2.28E-01	993	504
Right lateral orbitofrontal cortex	-0.070	0.055	[-0.178 - 0.037]	-0.955	2.10E-01	6.62E-01	992	504
Right lingual gyrus	-0.071	0.055	[-0.179 - 0.036]	-1.059	2.03E-01	6.58E-01	994	504
Right medial orbitofrontal cortex	-0.032	0.055	[-0.139 - 0.076]	-0.435	5.71E-01	8.74E-01	988	501
Right middle temporal gyrus	-0.032	0.055	[-0.139 - 0.075]	-0.489	5.72E-01	8.74E-01	993	504
Right parahippocampal gyrus	-0.039	0.055	[-0.147 - 0.068]	-0.609	4.82E-01	8.40E-01	988	503
Right paracentral lobule	-0.013	0.055	[-0.12 - 0.094]	-0.206	8.17E-01	9.67E-01	993	503
Right pars opercularis of inferior frontal gyrus	-0.035	0.055	[-0.142 - 0.073]	-0.592	5.36E-01	8.53E-01	994	503
Right pars orbitalis of inferior frontal gyrus	-0.098	0.055	[-0.205 - 0.01]	-1.388	8.15E-02	4.65E-01	994	504
Right pars triangularis of inferior frontal gyrus	-0.028	0.055	[-0.135 - 0.079]	-0.484	6.17E-01	8.92E-01	993	504
Right pericalcarine cortex	-0.064	0.055	[-0.171 - 0.043]	-1.177	2.54E-01	6.95E-01	993	503
Right postcentral gyrus	-0.097	0.055	[-0.205 - 0.01]	-1.254	8.32E-02	4.71E-01	990	503
Right posterior cingulate cortex	-0.031	0.055	[-0.138 - 0.076]	-0.513	5.78E-01	8.75E-01	992	504

Right precentral gyrus	-0.152	0.055	[-0.259 - -0.044]	-1.880	6.94E-03	1.09E-01	989	504
Right precuneus	-0.063	0.055	[-0.17 - 0.044]	-0.841	2.61E-01	7.03E-01	994	504
Right rostral anterior cingulate cortex	0.064	0.055	[-0.043 - 0.171]	1.416	2.54E-01	6.95E-01	993	502
Right rostral middle frontal gyrus	-0.199	0.055	[-0.306 - -0.091]	-2.995	4.00E-04	1.25E-02	992	503
Right superior frontal gyrus	-0.187	0.055	[-0.295 - -0.08]	-2.472	8.61E-04	2.26E-02	992	504
Right superior parietal cortex	-0.049	0.055	[-0.156 - 0.058]	-0.604	3.83E-01	7.87E-01	994	504
Right superior temporal gyrus	-0.008	0.055	[-0.115 - 0.1]	-0.094	8.92E-01	9.82E-01	986	502
Right supramarginal gyrus	-0.024	0.055	[-0.131 - 0.084]	-0.361	6.75E-01	9.20E-01	988	502
Right frontal pole	-0.098	0.055	[-0.205 - 0.009]	-1.693	8.00E-02	4.59E-01	993	504
Right temporal pole	-0.057	0.055	[-0.165 - 0.051]	-0.907	3.11E-01	7.41E-01	976	497
Right transverse temporal gyrus	-0.098	0.055	[-0.206 - 0.009]	-1.790	8.00E-02	4.59E-01	994	503
Right insula	-0.013	0.055	[-0.121 - 0.094]	-0.185	8.11E-01	9.65E-01	992	504
Left hemisphere total surface area	-0.144	0.056	[-0.254 - -0.033]	-1.549	1.31E-02	1.66E-01	903	482
Right hemisphere total surface area	-0.141	0.056	[-0.251 - -0.03]	-1.530	1.53E-02	1.83E-01	903	482

Supplementary Table 23. Effects of antidepressants on cortical thickness in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD AntiDep FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.041	0.056	[-0.067 - 0.15]	0.336	4.65E-01	8.33E-01	1011	478
Left caudal anterior cingulate cortex	-0.038	0.055	[-0.147 - 0.07]	-0.406	4.97E-01	8.43E-01	1018	477
Left caudal middle frontal gyrus	0.041	0.056	[-0.067 - 0.15]	0.323	4.66E-01	8.33E-01	1017	477
Left cuneus	-0.021	0.055	[-0.13 - 0.087]	-0.202	7.05E-01	9.26E-01	1016	478
Left entorhinal cortex	0.015	0.056	[-0.095 - 0.124]	0.202	7.96E-01	9.60E-01	996	471
Left fusiform gyrus	0.051	0.055	[-0.058 - 0.159]	0.453	3.72E-01	7.84E-01	1016	478
Left inferior parietal cortex	0.057	0.055	[-0.052 - 0.166]	0.406	3.14E-01	7.43E-01	1016	478
Left inferior temporal gyrus	0.057	0.056	[-0.052 - 0.166]	0.591	3.18E-01	7.46E-01	1007	477
Left isthmus cingulate cortex	0.018	0.055	[-0.091 - 0.127]	0.162	7.51E-01	9.42E-01	1018	478
Left lateral occipital cortex	0.054	0.055	[-0.054 - 0.163]	0.384	3.38E-01	7.63E-01	1015	478
Left lateral orbitofrontal cortex	-0.016	0.055	[-0.124 - 0.093]	-0.127	7.81E-01	9.55E-01	1016	478
Left lingual gyrus	0.037	0.055	[-0.072 - 0.146]	0.276	5.16E-01	8.47E-01	1016	478
Left medial orbitofrontal cortex	-0.020	0.056	[-0.129 - 0.09]	-0.188	7.32E-01	9.36E-01	1015	472
Left middle temporal gyrus	0.063	0.056	[-0.046 - 0.172]	0.484	2.68E-01	7.06E-01	1014	477
Left parahippocampal gyrus	0.019	0.056	[-0.09 - 0.128]	0.239	7.35E-01	9.37E-01	1010	477
Left paracentral lobule	-0.039	0.055	[-0.148 - 0.07]	-0.332	4.92E-01	8.43E-01	1017	478
Left pars opercularis of inferior frontal gyrus	0.042	0.055	[-0.066 - 0.151]	0.324	4.56E-01	8.32E-01	1018	478
Left pars orbitalis of inferior frontal gyrus	0.038	0.055	[-0.071 - 0.146]	0.341	5.08E-01	8.43E-01	1018	478
Left pars triangularis of inferior frontal gyrus	0.034	0.055	[-0.075 - 0.143]	0.284	5.49E-01	8.61E-01	1018	478
Left pericalcarine cortex	0.028	0.055	[-0.081 - 0.137]	0.326	6.23E-01	8.95E-01	1017	478
Left postcentral gyrus	0.086	0.056	[-0.023 - 0.194]	0.698	1.31E-01	5.63E-01	1013	478
Left posterior cingulate cortex	-0.022	0.055	[-0.131 - 0.087]	-0.164	6.96E-01	9.26E-01	1018	478
Left precentral gyrus	0.066	0.055	[-0.042 - 0.175]	0.535	2.41E-01	6.90E-01	1014	478
Left precuneus	-0.039	0.055	[-0.148 - 0.07]	-0.285	4.91E-01	8.43E-01	1018	478
Left rostral anterior cingulate cortex	-0.008	0.056	[-0.117 - 0.101]	-0.080	8.87E-01	9.82E-01	1017	476
Left rostral middle frontal gyrus	0.012	0.055	[-0.097 - 0.121]	0.091	8.34E-01	9.72E-01	1018	478

Left superior frontal gyrus	-0.036	0.055	[-0.144 - 0.073]	-0.263	5.30E-01	8.51E-01	1016	478
Left superior parietal cortex	0.043	0.055	[-0.065 - 0.152]	0.337	4.45E-01	8.24E-01	1018	478
Left superior temporal gyrus	0.086	0.056	[-0.023 - 0.195]	0.607	1.31E-01	5.63E-01	1012	476
Left supramarginal gyrus	0.048	0.055	[-0.061 - 0.157]	0.351	3.98E-01	7.98E-01	1018	478
Left frontal pole	0.040	0.055	[-0.069 - 0.149]	0.473	4.81E-01	8.40E-01	1017	478
Left temporal pole	0.004	0.056	[-0.106 - 0.114]	0.063	9.41E-01	9.92E-01	1004	467
Left transverse temporal gyrus	0.083	0.055	[-0.025 - 0.192]	0.890	1.41E-01	5.75E-01	1018	478
Left insula	0.097	0.055	[-0.012 - 0.205]	0.672	8.87E-02	4.84E-01	1017	478
Right banks of superior temporal sulcus	0.066	0.055	[-0.043 - 0.175]	0.548	2.45E-01	6.91E-01	1015	478
Right caudal anterior cingulate cortex	0.048	0.055	[-0.061 - 0.157]	0.501	3.99E-01	7.98E-01	1017	478
Right caudal middle frontal gyrus	0.005	0.055	[-0.104 - 0.113]	0.037	9.34E-01	9.89E-01	1018	478
Right cuneus	-0.002	0.055	[-0.11 - 0.107]	-0.015	9.77E-01	9.97E-01	1017	478
Right entorhinal cortex	0.008	0.056	[-0.102 - 0.118]	0.120	8.87E-01	9.82E-01	993	469
Right fusiform gyrus	0.078	0.055	[-0.03 - 0.187]	0.714	1.67E-01	6.10E-01	1016	478
Right inferior parietal cortex	0.051	0.055	[-0.058 - 0.159]	0.376	3.71E-01	7.83E-01	1017	478
Right inferior temporal gyrus	0.048	0.056	[-0.061 - 0.156]	0.529	4.02E-01	8.00E-01	1010	478
Right isthmus cingulate cortex	0.040	0.055	[-0.069 - 0.149]	0.362	4.82E-01	8.40E-01	1018	478
Right lateral occipital cortex	0.077	0.055	[-0.031 - 0.186]	0.571	1.72E-01	6.16E-01	1016	478
Right lateral orbitofrontal cortex	0.002	0.055	[-0.107 - 0.11]	0.012	9.79E-01	9.97E-01	1016	478
Right lingual gyrus	0.041	0.055	[-0.067 - 0.15]	0.308	4.65E-01	8.33E-01	1018	478
Right medial orbitofrontal cortex	0.035	0.056	[-0.074 - 0.144]	0.331	5.39E-01	8.54E-01	1014	473
Right middle temporal gyrus	0.061	0.055	[-0.047 - 0.17]	0.562	2.80E-01	7.13E-01	1016	478
Right parahippocampal gyrus	-0.031	0.056	[-0.14 - 0.078]	-0.372	5.82E-01	8.78E-01	1011	476
Right paracentral lobule	0.002	0.055	[-0.107 - 0.111]	0.016	9.73E-01	9.97E-01	1017	478
Right pars opercularis of inferior frontal gyrus	0.039	0.055	[-0.07 - 0.147]	0.299	4.97E-01	8.43E-01	1018	477
Right pars orbitalis of inferior frontal gyrus	0.066	0.055	[-0.043 - 0.174]	0.587	2.47E-01	6.91E-01	1018	478
Right pars triangularis of inferior frontal gyrus	0.066	0.055	[-0.043 - 0.174]	0.544	2.48E-01	6.91E-01	1018	478
Right pericalcarine cortex	-0.050	0.055	[-0.159 - 0.059]	-0.578	3.77E-01	7.84E-01	1016	478
Right postcentral gyrus	0.042	0.055	[-0.066 - 0.151]	0.361	4.54E-01	8.30E-01	1014	478
Right posterior cingulate cortex	0.032	0.055	[-0.077 - 0.14]	0.243	5.77E-01	8.75E-01	1017	478
Right precentral gyrus	-0.001	0.055	[-0.11 - 0.107]	-0.012	9.80E-01	9.97E-01	1013	478

Right precuneus	0.028	0.055	[-0.081 - 0.137]	0.213	6.22E-01	8.95E-01	1018	478
Right rostral anterior cingulate cortex	0.050	0.056	[-0.058 - 0.159]	0.499	3.75E-01	7.84E-01	1017	477
Right rostral middle frontal gyrus	0.041	0.056	[-0.068 - 0.149]	0.315	4.75E-01	8.38E-01	1017	477
Right superior frontal gyrus	0.019	0.055	[-0.09 - 0.127]	0.137	7.43E-01	9.39E-01	1016	478
Right superior parietal cortex	0.057	0.055	[-0.052 - 0.166]	0.490	3.13E-01	7.41E-01	1017	478
Right superior temporal gyrus	0.091	0.056	[-0.018 - 0.201]	0.702	1.09E-01	5.29E-01	1011	473
Right supramarginal gyrus	0.015	0.056	[-0.094 - 0.124]	0.109	7.97E-01	9.61E-01	1015	475
Right frontal pole	0.023	0.055	[-0.085 - 0.132]	0.278	6.81E-01	9.23E-01	1015	478
Right temporal pole	-0.031	0.056	[-0.141 - 0.079]	-0.481	5.90E-01	8.80E-01	1007	464
Right transverse temporal gyrus	0.063	0.055	[-0.046 - 0.171]	0.678	2.69E-01	7.06E-01	1017	478
Right insula	0.069	0.055	[-0.04 - 0.178]	0.478	2.24E-01	6.79E-01	1017	478
Left hemisphere average thickness	0.040	0.056	[-0.07 - 0.15]	0.220	4.89E-01	8.43E-01	985	470
Right hemisphere average thickness	0.048	0.056	[-0.062 - 0.158]	0.272	4.01E-01	8.00E-01	985	470

Supplementary Table 24. Effects of antidepressants on cortical surface area in adults (all BD patients, controlling for all other medications)

	Cohen's d (BD AntiDep FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.022	0.056	[-0.131 - 0.087]	-0.381	7.02E-01	9.26E-01	1010	478
Left caudal anterior cingulate cortex	0.037	0.056	[-0.072 - 0.146]	0.810	5.18E-01	8.47E-01	1018	476
Left caudal middle frontal gyrus	0.000	0.055	[-0.109 - 0.109]	0.001	9.99E-01	1.00E+00	1018	478
Left cuneus	0.055	0.055	[-0.054 - 0.164]	0.901	3.31E-01	7.56E-01	1015	478
Left entorhinal cortex	0.006	0.056	[-0.104 - 0.115]	0.121	9.22E-01	9.85E-01	996	471
Left fusiform gyrus	0.045	0.055	[-0.064 - 0.153]	0.663	4.31E-01	8.22E-01	1016	478
Left inferior parietal cortex	0.065	0.055	[-0.043 - 0.174]	0.977	2.50E-01	6.93E-01	1015	478
Left inferior temporal gyrus	0.104	0.056	[-0.005 - 0.213]	1.784	6.90E-02	4.24E-01	1007	477
Left isthmus cingulate cortex	-0.003	0.055	[-0.112 - 0.106]	-0.057	9.57E-01	9.95E-01	1018	477
Left lateral occipital cortex	-0.001	0.055	[-0.11 - 0.108]	-0.011	9.89E-01	9.97E-01	1014	478
Left lateral orbitofrontal cortex	0.044	0.055	[-0.065 - 0.153]	0.579	4.39E-01	8.23E-01	1016	478
Left lingual gyrus	0.032	0.055	[-0.077 - 0.141]	0.483	5.73E-01	8.74E-01	1016	478
Left medial orbitofrontal cortex	0.058	0.056	[-0.051 - 0.168]	0.863	3.07E-01	7.38E-01	1015	472
Left middle temporal gyrus	0.038	0.056	[-0.071 - 0.147]	0.563	5.04E-01	8.43E-01	1012	477
Left parahippocampal gyrus	-0.009	0.056	[-0.117 - 0.1]	-0.137	8.80E-01	9.82E-01	1010	477
Left paracentral lobule	0.025	0.055	[-0.084 - 0.134]	0.377	6.59E-01	9.13E-01	1017	478
Left pars opercularis of inferior frontal gyrus	-0.030	0.055	[-0.139 - 0.078]	-0.498	5.95E-01	8.82E-01	1018	478
Left pars orbitalis of inferior frontal gyrus	-0.041	0.055	[-0.15 - 0.067]	-0.595	4.67E-01	8.33E-01	1018	478
Left pars triangularis of inferior frontal gyrus	0.008	0.055	[-0.101 - 0.116]	0.124	8.91E-01	9.82E-01	1018	478
Left pericalcarine cortex	0.002	0.055	[-0.107 - 0.111]	0.034	9.74E-01	9.97E-01	1015	478
Left postcentral gyrus	0.056	0.056	[-0.053 - 0.165]	0.700	3.26E-01	7.53E-01	1013	478
Left posterior cingulate cortex	0.036	0.055	[-0.072 - 0.145]	0.609	5.22E-01	8.47E-01	1017	478
Left precentral gyrus	0.050	0.055	[-0.059 - 0.159]	0.616	3.81E-01	7.87E-01	1014	478
Left precuneus	0.107	0.055	[-0.002 - 0.215]	1.406	6.06E-02	3.96E-01	1018	478
Left rostral anterior cingulate cortex	0.025	0.056	[-0.084 - 0.134]	0.522	6.61E-01	9.14E-01	1017	476
Left rostral middle frontal gyrus	0.034	0.055	[-0.075 - 0.142]	0.495	5.54E-01	8.63E-01	1018	478

Left superior frontal gyrus	0.003	0.055	[-0.106 - 0.111]	0.033	9.63E-01	9.96E-01	1016	478
Left superior parietal cortex	-0.037	0.055	[-0.146 - 0.072]	-0.473	5.13E-01	8.46E-01	1017	478
Left superior temporal gyrus	-0.046	0.056	[-0.155 - 0.063]	-0.579	4.21E-01	8.14E-01	1010	476
Left supramarginal gyrus	-0.014	0.055	[-0.123 - 0.094]	-0.217	8.02E-01	9.62E-01	1018	478
Left frontal pole	0.099	0.055	[-0.009 - 0.208]	1.765	8.04E-02	4.60E-01	1017	478
Left temporal pole	-0.067	0.056	[-0.176 - 0.043]	-1.040	2.46E-01	6.91E-01	1004	467
Left transverse temporal gyrus	-0.008	0.055	[-0.117 - 0.1]	-0.145	8.83E-01	9.82E-01	1018	478
Left insula	-0.028	0.055	[-0.137 - 0.081]	-0.366	6.24E-01	8.95E-01	1016	478
Right banks of superior temporal sulcus	0.055	0.055	[-0.054 - 0.163]	1.019	3.37E-01	7.62E-01	1015	478
Right caudal anterior cingulate cortex	0.045	0.055	[-0.063 - 0.154]	0.999	4.23E-01	8.15E-01	1016	478
Right caudal middle frontal gyrus	0.029	0.055	[-0.08 - 0.138]	0.538	6.08E-01	8.88E-01	1017	478
Right cuneus	0.010	0.055	[-0.099 - 0.119]	0.152	8.61E-01	9.81E-01	1017	478
Right entorhinal cortex	0.021	0.056	[-0.088 - 0.131]	0.507	7.09E-01	9.28E-01	993	469
Right fusiform gyrus	0.032	0.055	[-0.077 - 0.14]	0.461	5.79E-01	8.75E-01	1015	478
Right inferior parietal cortex	-0.086	0.055	[-0.195 - 0.022]	-1.298	1.29E-01	5.60E-01	1018	478
Right inferior temporal gyrus	0.038	0.056	[-0.071 - 0.147]	0.655	5.04E-01	8.43E-01	1011	478
Right isthmus cingulate cortex	0.032	0.055	[-0.077 - 0.141]	0.584	5.73E-01	8.74E-01	1017	478
Right lateral occipital cortex	0.102	0.055	[-0.007 - 0.211]	1.439	7.24E-02	4.37E-01	1017	478
Right lateral orbitofrontal cortex	0.038	0.055	[-0.071 - 0.146]	0.511	5.08E-01	8.43E-01	1016	478
Right lingual gyrus	0.048	0.055	[-0.06 - 0.157]	0.719	3.93E-01	7.95E-01	1018	478
Right medial orbitofrontal cortex	0.014	0.056	[-0.096 - 0.123]	0.185	8.12E-01	9.66E-01	1014	473
Right middle temporal gyrus	0.032	0.055	[-0.077 - 0.141]	0.494	5.72E-01	8.74E-01	1017	478
Right parahippocampal gyrus	0.010	0.056	[-0.099 - 0.119]	0.148	8.66E-01	9.81E-01	1013	476
Right paracentral lobule	0.002	0.055	[-0.107 - 0.111]	0.029	9.74E-01	9.97E-01	1016	478
Right pars opercularis of inferior frontal gyrus	-0.037	0.055	[-0.146 - 0.072]	-0.629	5.17E-01	8.47E-01	1018	477
Right pars orbitalis of inferior frontal gyrus	-0.057	0.055	[-0.166 - 0.052]	-0.808	3.17E-01	7.46E-01	1018	478
Right pars triangularis of inferior frontal gyrus	-0.072	0.055	[-0.181 - 0.037]	-1.246	2.05E-01	6.59E-01	1017	478
Right pericalcarine cortex	0.067	0.055	[-0.042 - 0.176]	1.235	2.37E-01	6.89E-01	1016	478
Right postcentral gyrus	0.019	0.055	[-0.09 - 0.128]	0.247	7.36E-01	9.37E-01	1014	478
Right posterior cingulate cortex	0.070	0.055	[-0.039 - 0.179]	1.149	2.19E-01	6.71E-01	1016	478
Right precentral gyrus	0.079	0.056	[-0.03 - 0.187]	0.975	1.67E-01	6.10E-01	1013	478

Right precuneus	0.073	0.055	[-0.036 - 0.181]	0.970	2.00E-01	6.57E-01	1018	478
Right rostral anterior cingulate cortex	0.037	0.056	[-0.072 - 0.146]	0.824	5.12E-01	8.45E-01	1016	477
Right rostral middle frontal gyrus	0.050	0.056	[-0.059 - 0.159]	0.756	3.77E-01	7.84E-01	1017	477
Right superior frontal gyrus	-0.004	0.055	[-0.113 - 0.104]	-0.056	9.40E-01	9.92E-01	1016	478
Right superior parietal cortex	0.050	0.055	[-0.058 - 0.159]	0.621	3.76E-01	7.84E-01	1018	478
Right superior temporal gyrus	0.053	0.056	[-0.056 - 0.162]	0.659	3.50E-01	7.73E-01	1013	473
Right supramarginal gyrus	0.096	0.056	[-0.013 - 0.205]	1.479	9.12E-02	4.87E-01	1014	475
Right frontal pole	0.084	0.055	[-0.024 - 0.193]	1.454	1.38E-01	5.70E-01	1017	478
Right temporal pole	0.041	0.056	[-0.069 - 0.151]	0.658	4.71E-01	8.35E-01	1007	464
Right transverse temporal gyrus	0.041	0.055	[-0.068 - 0.15]	0.745	4.72E-01	8.36E-01	1017	478
Right insula	-0.002	0.055	[-0.111 - 0.107]	-0.030	9.70E-01	9.97E-01	1016	478
Left hemisphere total surface area	0.048	0.057	[-0.064 - 0.161]	0.521	4.11E-01	8.04E-01	933	450
Right hemisphere total surface area	0.066	0.057	[-0.047 - 0.178]	0.718	2.63E-01	7.03E-01	933	450

Supplementary Table 25. Effects of a history of psychosis on cortical thickness in adults

	Cohen's d (Psy vs NoPsy)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.093	0.054	[-0.199 - 0.013]	-0.754	8.92E-02	4.86E-01	619	764
Left caudal anterior cingulate cortex	-0.028	0.054	[-0.134 - 0.078]	-0.295	6.08E-01	8.88E-01	619	767
Left caudal middle frontal gyrus	0.000	0.054	[-0.106 - 0.106]	0.002	9.96E-01	9.98E-01	618	768
Left cuneus	-0.099	0.054	[-0.205 - 0.007]	-0.927	7.08E-02	4.31E-01	619	768
Left entorhinal cortex	0.056	0.054	[-0.051 - 0.162]	0.759	3.12E-01	7.41E-01	612	760
Left fusiform gyrus	-0.023	0.054	[-0.129 - 0.083]	-0.206	6.73E-01	9.20E-01	618	767
Left inferior parietal cortex	0.059	0.054	[-0.047 - 0.165]	0.421	2.79E-01	7.13E-01	618	766
Left inferior temporal gyrus	-0.101	0.054	[-0.207 - 0.005]	-1.050	6.59E-02	4.15E-01	616	762
Left isthmus cingulate cortex	0.059	0.054	[-0.047 - 0.165]	0.535	2.78E-01	7.13E-01	618	768
Left lateral occipital cortex	0.012	0.054	[-0.094 - 0.118]	0.082	8.32E-01	9.72E-01	616	767
Left lateral orbitofrontal cortex	-0.100	0.054	[-0.206 - 0.006]	-0.809	6.68E-02	4.17E-01	619	766
Left lingual gyrus	-0.065	0.054	[-0.171 - 0.041]	-0.490	2.32E-01	6.85E-01	619	767
Left medial orbitofrontal cortex	-0.015	0.054	[-0.121 - 0.091]	-0.145	7.83E-01	9.56E-01	615	763
Left middle temporal gyrus	-0.083	0.054	[-0.189 - 0.023]	-0.640	1.28E-01	5.58E-01	619	763
Left parahippocampal gyrus	-0.084	0.054	[-0.19 - 0.022]	-1.045	1.26E-01	5.53E-01	617	762
Left paracentral lobule	0.059	0.054	[-0.046 - 0.165]	0.507	2.76E-01	7.13E-01	619	768
Left pars opercularis of inferior frontal gyrus	0.016	0.054	[-0.09 - 0.122]	0.125	7.66E-01	9.46E-01	619	768
Left pars orbitalis of inferior frontal gyrus	-0.068	0.054	[-0.174 - 0.038]	-0.617	2.14E-01	6.66E-01	619	768
Left pars triangularis of inferior frontal gyrus	-0.007	0.054	[-0.112 - 0.099]	-0.054	9.05E-01	9.83E-01	619	768
Left pericalcarine cortex	0.022	0.054	[-0.084 - 0.128]	0.258	6.86E-01	9.25E-01	619	767
Left postcentral gyrus	0.051	0.054	[-0.056 - 0.157]	0.412	3.56E-01	7.77E-01	614	767
Left posterior cingulate cortex	0.075	0.054	[-0.03 - 0.181]	0.557	1.67E-01	6.10E-01	619	768
Left precentral gyrus	0.004	0.054	[-0.102 - 0.11]	0.029	9.47E-01	9.93E-01	615	768
Left precuneus	0.061	0.054	[-0.044 - 0.167]	0.449	2.60E-01	7.02E-01	619	768
Left rostral anterior cingulate cortex	-0.003	0.054	[-0.108 - 0.103]	-0.025	9.63E-01	9.96E-01	619	766

Left rostral middle frontal gyrus	-0.003	0.054	[-0.109 - 0.102]	-0.026	9.50E-01	9.94E-01	619	768
Left superior frontal gyrus	-0.010	0.054	[-0.116 - 0.096]	-0.075	8.53E-01	9.78E-01	619	766
Left superior parietal cortex	0.092	0.054	[-0.013 - 0.198]	0.721	9.06E-02	4.87E-01	619	768
Left superior temporal gyrus	-0.094	0.054	[-0.2 - 0.012]	-0.663	8.69E-02	4.78E-01	614	767
Left supramarginal gyrus	0.019	0.054	[-0.087 - 0.125]	0.141	7.25E-01	9.34E-01	619	768
Left frontal pole	-0.067	0.054	[-0.173 - 0.039]	-0.794	2.20E-01	6.73E-01	619	767
Left temporal pole	0.017	0.054	[-0.09 - 0.123]	0.251	7.61E-01	9.46E-01	607	763
Left transverse temporal gyrus	-0.117	0.054	[-0.223 - -0.012]	-1.252	3.16E-02	2.88E-01	619	768
Left insula	-0.070	0.054	[-0.176 - 0.036]	-0.485	2.02E-01	6.58E-01	619	767
Right banks of superior temporal sulcus	0.006	0.054	[-0.1 - 0.112]	0.048	9.16E-01	9.83E-01	619	768
Right caudal anterior cingulate cortex	-0.058	0.054	[-0.164 - 0.048]	-0.611	2.85E-01	7.18E-01	619	767
Right caudal middle frontal gyrus	-0.025	0.054	[-0.131 - 0.081]	-0.199	6.43E-01	9.08E-01	619	768
Right cuneus	-0.068	0.054	[-0.174 - 0.038]	-0.637	2.11E-01	6.63E-01	619	768
Right entorhinal cortex	-0.050	0.054	[-0.156 - 0.057]	-0.738	3.64E-01	7.80E-01	612	766
Right fusiform gyrus	-0.069	0.054	[-0.175 - 0.037]	-0.626	2.08E-01	6.62E-01	619	768
Right inferior parietal cortex	-0.049	0.054	[-0.155 - 0.057]	-0.360	3.73E-01	7.84E-01	619	768
Right inferior temporal gyrus	-0.008	0.054	[-0.114 - 0.098]	-0.087	8.87E-01	9.82E-01	616	764
Right isthmus cingulate cortex	0.032	0.054	[-0.074 - 0.138]	0.291	5.57E-01	8.66E-01	618	768
Right lateral occipital cortex	0.012	0.054	[-0.094 - 0.118]	0.088	8.28E-01	9.71E-01	619	766
Right lateral orbitofrontal cortex	-0.105	0.054	[-0.211 - 0.001]	-0.865	5.51E-02	3.84E-01	619	766
Right lingual gyrus	0.017	0.054	[-0.089 - 0.122]	0.124	7.61E-01	9.46E-01	619	768
Right medial orbitofrontal cortex	-0.102	0.054	[-0.208 - 0.004]	-0.964	6.30E-02	4.06E-01	615	763
Right middle temporal gyrus	-0.029	0.054	[-0.135 - 0.077]	-0.267	5.94E-01	8.82E-01	619	767
Right parahippocampal gyrus	0.000	0.054	[-0.106 - 0.106]	-0.001	9.98E-01	9.99E-01	617	767
Right paracentral lobule	-0.006	0.054	[-0.112 - 0.1]	-0.049	9.14E-01	9.83E-01	618	768
Right pars opercularis of inferior frontal gyrus	-0.062	0.054	[-0.168 - 0.044]	-0.482	2.56E-01	6.97E-01	619	767
Right pars orbitalis of inferior frontal gyrus	-0.096	0.054	[-0.202 - 0.01]	-0.859	7.85E-02	4.54E-01	619	768
Right pars triangularis of inferior frontal gyrus	-0.067	0.054	[-0.173 - 0.038]	-0.559	2.17E-01	6.70E-01	619	768
Right pericalcarine cortex	0.073	0.054	[-0.033 - 0.179]	0.838	1.84E-01	6.37E-01	619	765
Right postcentral gyrus	0.072	0.054	[-0.034 - 0.179]	0.615	1.86E-01	6.38E-01	615	767
Right posterior cingulate cortex	-0.001	0.054	[-0.107 - 0.105]	-0.009	9.82E-01	9.97E-01	619	767

Right precentral gyrus	0.039	0.054	[-0.067 - 0.145]	0.316	4.76E-01	8.38E-01	614	768
Right precuneus	0.053	0.054	[-0.052 - 0.159]	0.408	3.28E-01	7.53E-01	619	768
Right rostral anterior cingulate cortex	-0.073	0.054	[-0.179 - 0.033]	-0.719	1.84E-01	6.38E-01	618	767
Right rostral middle frontal gyrus	0.004	0.054	[-0.102 - 0.11]	0.028	9.47E-01	9.93E-01	619	765
Right superior frontal gyrus	-0.030	0.054	[-0.136 - 0.076]	-0.218	5.88E-01	8.80E-01	619	766
Right superior parietal cortex	0.073	0.054	[-0.033 - 0.179]	0.627	1.80E-01	6.29E-01	619	767
Right superior temporal gyrus	-0.095	0.054	[-0.201 - 0.012]	-0.729	8.42E-02	4.73E-01	612	764
Right supramarginal gyrus	0.009	0.054	[-0.097 - 0.115]	0.068	8.68E-01	9.81E-01	614	766
Right frontal pole	0.000	0.054	[-0.105 - 0.106]	0.005	9.94E-01	9.98E-01	619	766
Right temporal pole	0.005	0.054	[-0.102 - 0.112]	0.081	9.24E-01	9.87E-01	603	764
Right transverse temporal gyrus	-0.128	0.054	[-0.234 - -0.022]	-1.381	1.95E-02	2.16E-01	619	767
Right insula	-0.011	0.054	[-0.117 - 0.095]	-0.077	8.39E-01	9.73E-01	618	766
Left hemisphere average thickness	-0.021	0.055	[-0.129 - 0.088]	-0.115	7.10E-01	9.29E-01	605	715
Right hemisphere average thickness	-0.025	0.055	[-0.133 - 0.083]	-0.140	6.56E-01	9.13E-01	605	715

Supplementary Table 26. Effects a history of psychosis on cortical surface area in adults

	Cohen's d (Psy vs NoPsy)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.025	0.054	[-0.081 - 0.131]	0.440	6.46E-01	9.09E-01	619	764
Left caudal anterior cingulate cortex	-0.020	0.054	[-0.126 - 0.086]	-0.438	7.16E-01	9.31E-01	619	767
Left caudal middle frontal gyrus	0.001	0.054	[-0.105 - 0.107]	0.020	9.83E-01	9.97E-01	619	768
Left cuneus	0.037	0.054	[-0.069 - 0.142]	0.597	5.04E-01	8.43E-01	618	768
Left entorhinal cortex	-0.077	0.054	[-0.183 - 0.03]	-1.654	1.64E-01	6.05E-01	612	760
Left fusiform gyrus	0.005	0.054	[-0.101 - 0.111]	0.069	9.32E-01	9.89E-01	618	767
Left inferior parietal cortex	0.035	0.054	[-0.071 - 0.141]	0.522	5.24E-01	8.49E-01	618	766
Left inferior temporal gyrus	0.061	0.054	[-0.045 - 0.167]	1.053	2.65E-01	7.04E-01	616	762
Left isthmus cingulate cortex	-0.031	0.054	[-0.137 - 0.075]	-0.578	5.71E-01	8.74E-01	618	768
Left lateral occipital cortex	0.047	0.054	[-0.059 - 0.153]	0.655	3.88E-01	7.89E-01	617	766
Left lateral orbitofrontal cortex	0.043	0.054	[-0.063 - 0.149]	0.571	4.28E-01	8.21E-01	618	766
Left lingual gyrus	0.048	0.054	[-0.058 - 0.154]	0.724	3.81E-01	7.87E-01	619	767
Left medial orbitofrontal cortex	0.058	0.054	[-0.048 - 0.164]	0.856	2.91E-01	7.22E-01	615	763
Left middle temporal gyrus	0.043	0.054	[-0.063 - 0.149]	0.635	4.35E-01	8.23E-01	619	762
Left parahippocampal gyrus	0.099	0.054	[-0.007 - 0.206]	1.592	6.99E-02	4.27E-01	617	761
Left paracentral lobule	0.004	0.054	[-0.102 - 0.11]	0.060	9.42E-01	9.92E-01	619	768
Left pars opercularis of inferior frontal gyrus	0.052	0.054	[-0.054 - 0.158]	0.853	3.44E-01	7.70E-01	619	768
Left pars orbitalis of inferior frontal gyrus	0.038	0.054	[-0.068 - 0.144]	0.543	4.91E-01	8.43E-01	619	768
Left pars triangularis of inferior frontal gyrus	0.070	0.054	[-0.035 - 0.176]	1.126	1.98E-01	6.52E-01	619	768
Left pericalcarine cortex	0.006	0.054	[-0.1 - 0.112]	0.104	9.17E-01	9.83E-01	618	766
Left postcentral gyrus	0.076	0.054	[-0.031 - 0.182]	0.947	1.68E-01	6.12E-01	614	767
Left posterior cingulate cortex	-0.004	0.054	[-0.11 - 0.102]	-0.061	9.46E-01	9.93E-01	619	767
Left precentral gyrus	0.008	0.054	[-0.098 - 0.114]	0.101	8.81E-01	9.82E-01	615	768
Left precuneus	0.074	0.054	[-0.032 - 0.179]	0.969	1.79E-01	6.28E-01	619	768
Left rostral anterior cingulate cortex	-0.068	0.054	[-0.174 - 0.038]	-1.427	2.13E-01	6.66E-01	619	766
Left rostral middle frontal gyrus	0.022	0.054	[-0.083 - 0.128]	0.330	6.82E-01	9.23E-01	619	768

Left superior frontal gyrus	0.081	0.054	[-0.025 - 0.187]	1.029	1.39E-01	5.71E-01	619	766
Left superior parietal cortex	-0.006	0.054	[-0.112 - 0.1]	-0.071	9.19E-01	9.83E-01	618	768
Left superior temporal gyrus	0.038	0.054	[-0.068 - 0.145]	0.485	4.84E-01	8.40E-01	614	766
Left supramarginal gyrus	0.008	0.054	[-0.098 - 0.114]	0.123	8.83E-01	9.82E-01	619	768
Left frontal pole	0.029	0.054	[-0.077 - 0.135]	0.516	5.95E-01	8.83E-01	619	767
Left temporal pole	-0.022	0.054	[-0.129 - 0.084]	-0.347	6.87E-01	9.25E-01	607	763
Left transverse temporal gyrus	0.079	0.054	[-0.027 - 0.185]	1.372	1.48E-01	5.85E-01	619	768
Left insula	0.048	0.054	[-0.058 - 0.154]	0.634	3.78E-01	7.85E-01	619	766
Right banks of superior temporal sulcus	0.027	0.054	[-0.078 - 0.133]	0.513	6.16E-01	8.92E-01	619	768
Right caudal anterior cingulate cortex	-0.038	0.054	[-0.144 - 0.068]	-0.827	4.92E-01	8.43E-01	619	766
Right caudal middle frontal gyrus	-0.031	0.054	[-0.137 - 0.075]	-0.571	5.73E-01	8.74E-01	618	768
Right cuneus	0.042	0.054	[-0.063 - 0.148]	0.651	4.38E-01	8.23E-01	619	768
Right entorhinal cortex	0.047	0.054	[-0.059 - 0.154]	1.124	3.88E-01	7.88E-01	612	766
Right fusiform gyrus	0.008	0.054	[-0.098 - 0.114]	0.120	8.81E-01	9.82E-01	619	767
Right inferior parietal cortex	0.065	0.054	[-0.04 - 0.171]	0.986	2.31E-01	6.85E-01	619	768
Right inferior temporal gyrus	0.049	0.054	[-0.057 - 0.155]	0.851	3.68E-01	7.82E-01	617	764
Right isthmus cingulate cortex	-0.052	0.054	[-0.158 - 0.054]	-0.954	3.38E-01	7.64E-01	618	768
Right lateral occipital cortex	-0.047	0.054	[-0.153 - 0.059]	-0.664	3.89E-01	7.91E-01	619	767
Right lateral orbitofrontal cortex	0.023	0.054	[-0.083 - 0.129]	0.318	6.69E-01	9.19E-01	619	766
Right lingual gyrus	0.023	0.054	[-0.082 - 0.129]	0.348	6.68E-01	9.19E-01	619	768
Right medial orbitofrontal cortex	0.072	0.054	[-0.035 - 0.178]	0.978	1.92E-01	6.43E-01	615	763
Right middle temporal gyrus	0.094	0.054	[-0.012 - 0.2]	1.455	8.47E-02	4.73E-01	619	767
Right parahippocampal gyrus	0.039	0.054	[-0.067 - 0.145]	0.597	4.79E-01	8.39E-01	618	767
Right paracentral lobule	0.006	0.054	[-0.1 - 0.112]	0.097	9.11E-01	9.83E-01	619	767
Right pars opercularis of inferior frontal gyrus	0.038	0.054	[-0.068 - 0.144]	0.644	4.90E-01	8.43E-01	619	767
Right pars orbitalis of inferior frontal gyrus	0.063	0.054	[-0.043 - 0.169]	0.899	2.47E-01	6.91E-01	619	768
Right pars triangularis of inferior frontal gyrus	0.021	0.054	[-0.085 - 0.127]	0.357	7.06E-01	9.26E-01	619	768
Right pericalcarine cortex	0.048	0.054	[-0.058 - 0.154]	0.887	3.79E-01	7.85E-01	619	765
Right postcentral gyrus	0.031	0.054	[-0.075 - 0.137]	0.399	5.72E-01	8.74E-01	615	767
Right posterior cingulate cortex	0.000	0.054	[-0.106 - 0.106]	0.007	9.94E-01	9.98E-01	618	767
Right precentral gyrus	0.059	0.054	[-0.047 - 0.165]	0.731	2.83E-01	7.18E-01	614	768

Right precuneus	0.058	0.054	[-0.048 - 0.163]	0.767	2.93E-01	7.23E-01	619	768
Right rostral anterior cingulate cortex	0.048	0.054	[-0.058 - 0.154]	1.071	3.76E-01	7.84E-01	618	766
Right rostral middle frontal gyrus	0.010	0.054	[-0.096 - 0.116]	0.149	8.56E-01	9.78E-01	619	765
Right superior frontal gyrus	0.088	0.054	[-0.018 - 0.194]	1.158	1.09E-01	5.29E-01	619	766
Right superior parietal cortex	-0.041	0.054	[-0.147 - 0.065]	-0.504	4.56E-01	8.31E-01	619	768
Right superior temporal gyrus	0.098	0.054	[-0.009 - 0.204]	1.210	7.51E-02	4.43E-01	613	765
Right supramarginal gyrus	-0.006	0.054	[-0.112 - 0.1]	-0.095	9.10E-01	9.83E-01	614	765
Right frontal pole	-0.167	0.054	[-0.273 - -0.061]	-2.881	2.30E-03	4.94E-02	619	767
Right temporal pole	-0.019	0.054	[-0.126 - 0.088]	-0.304	7.28E-01	9.34E-01	602	765
Right transverse temporal gyrus	0.088	0.054	[-0.018 - 0.194]	1.605	1.08E-01	5.26E-01	619	767
Right insula	0.045	0.054	[-0.061 - 0.151]	0.623	4.10E-01	8.04E-01	618	766
Left hemisphere total surface area	0.038	0.057	[-0.073 - 0.15]	0.414	5.07E-01	8.43E-01	567	683
Right hemisphere total surface area	0.031	0.057	[-0.081 - 0.142]	0.334	5.92E-01	8.81E-01	567	683

Supplementary Table 27. Effects of mood state at time of scanning (euthymic vs depressed) on cortical thickness in adults

	Cohen's d (Euth vs Dep)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.062	0.078	[-0.214 - 0.091]	-0.501	4.35E-01	8.23E-01	814	207
Left caudal anterior cingulate cortex	-0.001	0.078	[-0.152 - 0.151]	-0.006	9.95E-01	9.98E-01	818	209
Left caudal middle frontal gyrus	-0.100	0.078	[-0.252 - 0.052]	-0.778	2.06E-01	6.59E-01	818	208
Left cuneus	0.034	0.078	[-0.118 - 0.186]	0.317	6.69E-01	9.19E-01	818	208
Left entorhinal cortex	-0.072	0.080	[-0.228 - 0.084]	-0.979	3.76E-01	7.84E-01	798	197
Left fusiform gyrus	0.050	0.078	[-0.102 - 0.202]	0.450	5.23E-01	8.48E-01	817	209
Left inferior parietal cortex	0.016	0.077	[-0.136 - 0.168]	0.115	8.37E-01	9.73E-01	816	210
Left inferior temporal gyrus	-0.093	0.078	[-0.245 - 0.059]	-0.969	2.38E-01	6.89E-01	807	209
Left isthmus cingulate cortex	0.033	0.077	[-0.118 - 0.185]	0.300	6.72E-01	9.20E-01	817	210
Left lateral occipital cortex	0.140	0.077	[-0.012 - 0.291]	0.985	7.56E-02	4.43E-01	815	210
Left lateral orbitofrontal cortex	-0.051	0.077	[-0.203 - 0.101]	-0.411	5.17E-01	8.47E-01	816	210
Left lingual gyrus	-0.050	0.078	[-0.202 - 0.102]	-0.372	5.28E-01	8.51E-01	817	209
Left medial orbitofrontal cortex	-0.023	0.077	[-0.175 - 0.129]	-0.221	7.71E-01	9.49E-01	807	210
Left middle temporal gyrus	-0.094	0.077	[-0.245 - 0.058]	-0.720	2.34E-01	6.87E-01	813	210
Left parahippocampal gyrus	-0.003	0.079	[-0.157 - 0.151]	-0.034	9.73E-01	9.97E-01	808	203
Left paracentral lobule	-0.049	0.078	[-0.201 - 0.103]	-0.418	5.33E-01	8.53E-01	818	209
Left pars opercularis of inferior frontal gyrus	0.008	0.077	[-0.144 - 0.16]	0.062	9.18E-01	9.83E-01	818	210
Left pars orbitalis of inferior frontal gyrus	-0.038	0.077	[-0.19 - 0.114]	-0.346	6.28E-01	8.97E-01	818	210
Left pars triangularis of inferior frontal gyrus	0.062	0.077	[-0.089 - 0.214]	0.519	4.29E-01	8.21E-01	818	210
Left pericalcarine cortex	0.128	0.077	[-0.024 - 0.279]	1.491	1.04E-01	5.17E-01	817	210
Left postcentral gyrus	0.018	0.078	[-0.134 - 0.17]	0.150	8.15E-01	9.66E-01	815	209
Left posterior cingulate cortex	0.035	0.077	[-0.117 - 0.187]	0.258	6.57E-01	9.13E-01	818	210
Left precentral gyrus	0.074	0.078	[-0.078 - 0.226]	0.596	3.47E-01	7.73E-01	816	209
Left precuneus	-0.099	0.077	[-0.251 - 0.052]	-0.725	2.07E-01	6.60E-01	818	210
Left rostral anterior cingulate cortex	-0.092	0.078	[-0.244 - 0.06]	-0.912	2.43E-01	6.91E-01	816	209

Left rostral middle frontal gyrus	0.032	0.077	[-0.119 - 0.184]	0.247	6.81E-01	9.23E-01	818	210
Left superior frontal gyrus	-0.045	0.077	[-0.197 - 0.106]	-0.334	5.65E-01	8.71E-01	817	210
Left superior parietal cortex	0.078	0.077	[-0.073 - 0.23]	0.611	3.18E-01	7.46E-01	818	210
Left superior temporal gyrus	-0.113	0.077	[-0.265 - 0.039]	-0.799	1.51E-01	5.89E-01	810	210
Left supramarginal gyrus	0.002	0.077	[-0.15 - 0.153]	0.011	9.84E-01	9.97E-01	818	210
Left frontal pole	-0.080	0.077	[-0.231 - 0.072]	-0.945	3.10E-01	7.40E-01	817	210
Left temporal pole	0.018	0.078	[-0.134 - 0.17]	0.276	8.16E-01	9.67E-01	794	210
Left transverse temporal gyrus	-0.012	0.077	[-0.164 - 0.14]	-0.128	8.79E-01	9.82E-01	818	210
Left insula	-0.087	0.077	[-0.239 - 0.065]	-0.605	2.68E-01	7.06E-01	818	210
Right banks of superior temporal sulcus	-0.027	0.078	[-0.179 - 0.126]	-0.224	7.33E-01	9.37E-01	819	207
Right caudal anterior cingulate cortex	-0.035	0.077	[-0.186 - 0.117]	-0.365	6.57E-01	9.13E-01	818	210
Right caudal middle frontal gyrus	0.071	0.077	[-0.081 - 0.222]	0.557	3.68E-01	7.82E-01	819	210
Right cuneus	0.089	0.078	[-0.063 - 0.241]	0.829	2.58E-01	7.00E-01	819	209
Right entorhinal cortex	0.033	0.081	[-0.126 - 0.191]	0.488	6.88E-01	9.25E-01	805	189
Right fusiform gyrus	0.073	0.077	[-0.079 - 0.224]	0.660	3.56E-01	7.77E-01	817	210
Right inferior parietal cortex	0.076	0.078	[-0.076 - 0.228]	0.559	3.37E-01	7.62E-01	819	209
Right inferior temporal gyrus	0.027	0.077	[-0.125 - 0.179]	0.297	7.34E-01	9.37E-01	811	210
Right isthmus cingulate cortex	-0.030	0.077	[-0.182 - 0.122]	-0.273	7.01E-01	9.26E-01	818	210
Right lateral occipital cortex	0.023	0.077	[-0.128 - 0.175]	0.172	7.66E-01	9.46E-01	817	210
Right lateral orbitofrontal cortex	0.014	0.077	[-0.138 - 0.165]	0.112	8.63E-01	9.81E-01	817	210
Right lingual gyrus	0.052	0.077	[-0.099 - 0.204]	0.390	5.05E-01	8.43E-01	819	210
Right medial orbitofrontal cortex	-0.106	0.078	[-0.258 - 0.046]	-1.004	1.77E-01	6.26E-01	807	210
Right middle temporal gyrus	-0.054	0.078	[-0.206 - 0.098]	-0.494	4.93E-01	8.43E-01	818	209
Right parahippocampal gyrus	-0.053	0.078	[-0.207 - 0.1]	-0.631	5.04E-01	8.43E-01	815	204
Right paracentral lobule	-0.017	0.077	[-0.169 - 0.135]	-0.141	8.29E-01	9.72E-01	819	209
Right pars opercularis of inferior frontal gyrus	-0.031	0.077	[-0.183 - 0.121]	-0.240	6.94E-01	9.26E-01	818	210
Right pars orbitalis of inferior frontal gyrus	0.007	0.077	[-0.145 - 0.158]	0.060	9.32E-01	9.89E-01	819	210
Right pars triangularis of inferior frontal gyrus	0.010	0.077	[-0.142 - 0.161]	0.080	9.02E-01	9.83E-01	819	210
Right pericalcarine cortex	0.071	0.077	[-0.08 - 0.223]	0.825	3.63E-01	7.80E-01	816	210
Right postcentral gyrus	-0.027	0.078	[-0.179 - 0.125]	-0.230	7.31E-01	9.36E-01	817	209
Right posterior cingulate cortex	-0.003	0.077	[-0.154 - 0.149]	-0.021	9.72E-01	9.97E-01	818	210

Right precentral gyrus	0.081	0.078	[-0.071 - 0.233]	0.660	3.01E-01	7.32E-01	816	209
Right precuneus	-0.051	0.077	[-0.202 - 0.101]	-0.387	5.18E-01	8.47E-01	819	210
Right rostral anterior cingulate cortex	-0.062	0.077	[-0.213 - 0.09]	-0.611	4.33E-01	8.22E-01	817	210
Right rostral middle frontal gyrus	0.099	0.077	[-0.052 - 0.251]	0.771	2.07E-01	6.60E-01	817	210
Right superior frontal gyrus	-0.024	0.077	[-0.176 - 0.127]	-0.180	7.55E-01	9.44E-01	818	210
Right superior parietal cortex	0.128	0.077	[-0.023 - 0.28]	1.098	1.03E-01	5.15E-01	818	210
Right superior temporal gyrus	-0.031	0.077	[-0.183 - 0.121]	-0.240	6.92E-01	9.26E-01	807	210
Right supramarginal gyrus	0.060	0.078	[-0.092 - 0.212]	0.445	4.50E-01	8.26E-01	814	209
Right frontal pole	0.042	0.078	[-0.11 - 0.194]	0.505	5.90E-01	8.80E-01	817	209
Right temporal pole	0.100	0.078	[-0.052 - 0.252]	1.553	2.06E-01	6.59E-01	795	209
Right transverse temporal gyrus	0.183	0.077	[0.031 - 0.335]	1.981	1.99E-02	2.18E-01	818	210
Right insula	-0.014	0.077	[-0.166 - 0.137]	-0.098	8.57E-01	9.78E-01	819	210
Left hemisphere average thickness	0.004	0.078	[-0.149 - 0.157]	0.022	9.61E-01	9.96E-01	748	209
Right hemisphere average thickness	0.050	0.078	[-0.103 - 0.203]	0.282	5.29E-01	8.51E-01	748	209

Supplementary Table 28. Effects of mood state at time of scanning (euthymic vs depressed) on cortical surface area in adults

	Cohen's d (Euth vs Dep)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.061	0.078	[-0.092 - 0.214]	1.069	4.41E-01	8.23E-01	814	206
Left caudal anterior cingulate cortex	0.111	0.078	[-0.041 - 0.263]	2.451	1.60E-01	6.01E-01	818	208
Left caudal middle frontal gyrus	0.065	0.077	[-0.087 - 0.216]	1.120	4.12E-01	8.06E-01	818	210
Left cuneus	-0.056	0.078	[-0.208 - 0.097]	-0.908	4.81E-01	8.40E-01	818	208
Left entorhinal cortex	-0.078	0.080	[-0.234 - 0.078]	-1.685	3.36E-01	7.61E-01	799	197
Left fusiform gyrus	-0.028	0.078	[-0.179 - 0.124]	-0.408	7.27E-01	9.34E-01	817	209
Left inferior parietal cortex	0.066	0.078	[-0.086 - 0.218]	0.989	4.02E-01	8.00E-01	816	209
Left inferior temporal gyrus	-0.021	0.078	[-0.173 - 0.131]	-0.367	7.88E-01	9.58E-01	807	209
Left isthmus cingulate cortex	0.067	0.078	[-0.085 - 0.219]	1.250	3.96E-01	7.98E-01	817	209
Left lateral occipital cortex	-0.125	0.077	[-0.277 - 0.027]	-1.731	1.13E-01	5.38E-01	814	210
Left lateral orbitofrontal cortex	0.006	0.077	[-0.145 - 0.158]	0.085	9.34E-01	9.89E-01	816	210
Left lingual gyrus	-0.021	0.078	[-0.173 - 0.131]	-0.324	7.86E-01	9.57E-01	817	209
Left medial orbitofrontal cortex	0.154	0.078	[0.002 - 0.306]	2.273	5.15E-02	3.76E-01	807	210
Left middle temporal gyrus	0.010	0.078	[-0.142 - 0.162]	0.145	9.01E-01	9.83E-01	813	208
Left parahippocampal gyrus	-0.029	0.079	[-0.183 - 0.125]	-0.467	7.15E-01	9.31E-01	808	203
Left paracentral lobule	0.117	0.078	[-0.035 - 0.269]	1.752	1.39E-01	5.71E-01	818	209
Left pars opercularis of inferior frontal gyrus	-0.110	0.077	[-0.262 - 0.041]	-1.816	1.61E-01	6.01E-01	818	210
Left pars orbitalis of inferior frontal gyrus	-0.030	0.077	[-0.181 - 0.122]	-0.429	7.05E-01	9.26E-01	818	210
Left pars triangularis of inferior frontal gyrus	0.031	0.077	[-0.12 - 0.183]	0.498	6.92E-01	9.26E-01	818	210
Left pericalcarine cortex	-0.057	0.077	[-0.209 - 0.095]	-1.044	4.69E-01	8.34E-01	816	210
Left postcentral gyrus	0.102	0.078	[-0.05 - 0.254]	1.283	1.95E-01	6.45E-01	815	209
Left posterior cingulate cortex	-0.100	0.078	[-0.252 - 0.052]	-1.681	2.03E-01	6.58E-01	818	209
Left precentral gyrus	-0.056	0.078	[-0.208 - 0.096]	-0.696	4.76E-01	8.38E-01	816	209
Left precuneus	0.160	0.077	[0.008 - 0.312]	2.106	4.27E-02	3.36E-01	818	210
Left rostral anterior cingulate cortex	0.225	0.078	[0.073 - 0.378]	4.717	4.47E-03	8.13E-02	817	208

Left rostral middle frontal gyrus	-0.086	0.077	[-0.237 - 0.066]	-1.262	2.77E-01	7.13E-01	818	210
Left superior frontal gyrus	0.021	0.077	[-0.13 - 0.173]	0.272	7.85E-01	9.57E-01	817	210
Left superior parietal cortex	0.070	0.078	[-0.082 - 0.222]	0.895	3.73E-01	7.84E-01	818	209
Left superior temporal gyrus	0.029	0.078	[-0.123 - 0.181]	0.363	7.15E-01	9.31E-01	809	209
Left supramarginal gyrus	0.020	0.077	[-0.131 - 0.172]	0.308	7.98E-01	9.61E-01	818	210
Left frontal pole	0.070	0.077	[-0.082 - 0.221]	1.237	3.77E-01	7.84E-01	817	210
Left temporal pole	-0.012	0.078	[-0.164 - 0.14]	-0.191	8.77E-01	9.82E-01	794	210
Left transverse temporal gyrus	-0.108	0.077	[-0.26 - 0.043]	-1.875	1.69E-01	6.12E-01	818	210
Left insula	-0.011	0.078	[-0.163 - 0.141]	-0.143	8.90E-01	9.82E-01	818	209
Right banks of superior temporal sulcus	-0.069	0.078	[-0.222 - 0.083]	-1.292	3.82E-01	7.87E-01	819	207
Right caudal anterior cingulate cortex	0.097	0.078	[-0.055 - 0.249]	2.137	2.18E-01	6.71E-01	818	209
Right caudal middle frontal gyrus	0.001	0.077	[-0.151 - 0.153]	0.024	9.87E-01	9.97E-01	819	209
Right cuneus	-0.065	0.078	[-0.217 - 0.087]	-1.002	4.08E-01	8.04E-01	819	209
Right entorhinal cortex	-0.038	0.081	[-0.197 - 0.12]	-0.908	6.41E-01	9.07E-01	804	189
Right fusiform gyrus	-0.065	0.078	[-0.217 - 0.087]	-0.953	4.09E-01	8.04E-01	817	209
Right inferior parietal cortex	-0.009	0.077	[-0.161 - 0.143]	-0.134	9.10E-01	9.83E-01	819	210
Right inferior temporal gyrus	-0.049	0.077	[-0.201 - 0.103]	-0.846	5.33E-01	8.53E-01	812	210
Right isthmus cingulate cortex	0.084	0.078	[-0.068 - 0.235]	1.520	2.90E-01	7.22E-01	818	209
Right lateral occipital cortex	-0.025	0.077	[-0.177 - 0.126]	-0.358	7.47E-01	9.40E-01	818	210
Right lateral orbitofrontal cortex	0.144	0.077	[-0.008 - 0.295]	1.951	6.85E-02	4.23E-01	817	210
Right lingual gyrus	-0.102	0.077	[-0.254 - 0.049]	-1.520	1.93E-01	6.45E-01	819	210
Right medial orbitofrontal cortex	0.123	0.078	[-0.029 - 0.275]	1.676	1.19E-01	5.48E-01	807	210
Right middle temporal gyrus	-0.003	0.077	[-0.155 - 0.148]	-0.052	9.66E-01	9.96E-01	818	210
Right parahippocampal gyrus	0.015	0.078	[-0.138 - 0.168]	0.235	8.48E-01	9.76E-01	815	206
Right paracentral lobule	0.099	0.078	[-0.053 - 0.251]	1.576	2.11E-01	6.63E-01	819	208
Right pars opercularis of inferior frontal gyrus	-0.088	0.077	[-0.24 - 0.063]	-1.504	2.63E-01	7.03E-01	818	210
Right pars orbitalis of inferior frontal gyrus	0.065	0.077	[-0.087 - 0.216]	0.921	4.10E-01	8.04E-01	819	210
Right pars triangularis of inferior frontal gyrus	0.098	0.078	[-0.054 - 0.25]	1.688	2.16E-01	6.70E-01	819	209
Right pericalcarine cortex	-0.122	0.077	[-0.273 - 0.03]	-2.239	1.23E-01	5.53E-01	816	210
Right postcentral gyrus	0.031	0.078	[-0.121 - 0.183]	0.395	6.98E-01	9.26E-01	817	209
Right posterior cingulate cortex	-0.027	0.078	[-0.179 - 0.125]	-0.446	7.31E-01	9.36E-01	818	209

Right precentral gyrus	-0.093	0.078	[-0.245 - 0.059]	-1.150	2.40E-01	6.90E-01	816	209
Right precuneus	0.086	0.077	[-0.066 - 0.237]	1.143	2.76E-01	7.13E-01	819	210
Right rostral anterior cingulate cortex	0.123	0.078	[-0.029 - 0.275]	2.725	1.18E-01	5.46E-01	817	209
Right rostral middle frontal gyrus	0.040	0.077	[-0.111 - 0.192]	0.607	6.08E-01	8.88E-01	817	210
Right superior frontal gyrus	-0.040	0.077	[-0.192 - 0.111]	-0.532	6.09E-01	8.88E-01	818	210
Right superior parietal cortex	0.120	0.077	[-0.031 - 0.272]	1.488	1.26E-01	5.53E-01	819	210
Right superior temporal gyrus	0.056	0.077	[-0.095 - 0.208]	0.697	4.75E-01	8.38E-01	809	210
Right supramarginal gyrus	0.027	0.078	[-0.126 - 0.179]	0.410	7.36E-01	9.37E-01	814	208
Right frontal pole	-0.024	0.077	[-0.175 - 0.128]	-0.411	7.62E-01	9.46E-01	818	210
Right temporal pole	0.053	0.078	[-0.099 - 0.205]	0.842	5.02E-01	8.43E-01	795	209
Right transverse temporal gyrus	-0.027	0.077	[-0.179 - 0.125]	-0.489	7.34E-01	9.37E-01	819	209
Right insula	0.054	0.077	[-0.098 - 0.206]	0.744	4.94E-01	8.43E-01	818	210
Left hemisphere total surface area	-0.065	0.082	[-0.227 - 0.096]	-0.701	4.38E-01	8.23E-01	698	187
Right hemisphere total surface area	-0.058	0.082	[-0.22 - 0.103]	-0.632	4.89E-01	8.43E-01	698	187

Supplementary Table 29. Cortical thickness differences in adolescents <25 years old (all BD patients compared to controls)

	Cohen's d (Adols BD vs CTL)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.000	0.058	[-0.115 - 0.114]	-0.003	9.95E-01	9.98E-01	1035	408
Left caudal anterior cingulate cortex	-0.062	0.058	[-0.176 - 0.053]	-0.652	2.96E-01	7.27E-01	1034	409
Left caudal middle frontal gyrus	-0.144	0.058	[-0.259 - -0.03]	-1.124	1.48E-02	1.80E-01	1035	410
Left cuneus	-0.045	0.058	[-0.159 - 0.069]	-0.423	4.45E-01	8.24E-01	1034	410
Left entorhinal cortex	0.023	0.059	[-0.092 - 0.138]	0.315	6.98E-01	9.26E-01	1031	405
Left fusiform gyrus	-0.081	0.058	[-0.196 - 0.033]	-0.726	1.69E-01	6.12E-01	1035	411
Left inferior parietal cortex	-0.085	0.058	[-0.199 - 0.029]	-0.606	1.49E-01	5.87E-01	1034	411
Left inferior temporal gyrus	-0.056	0.058	[-0.171 - 0.058]	-0.586	3.41E-01	7.67E-01	1034	411
Left isthmus cingulate cortex	-0.143	0.058	[-0.257 - -0.028]	-1.287	1.58E-02	1.85E-01	1034	410
Left lateral occipital cortex	-0.052	0.058	[-0.166 - 0.063]	-0.366	3.80E-01	7.87E-01	1035	410
Left lateral orbitofrontal cortex	0.010	0.058	[-0.105 - 0.124]	0.080	8.67E-01	9.81E-01	1030	409
Left lingual gyrus	-0.068	0.058	[-0.182 - 0.046]	-0.511	2.49E-01	6.91E-01	1035	411
Left medial orbitofrontal cortex	-0.025	0.058	[-0.139 - 0.09]	-0.239	6.75E-01	9.20E-01	1030	409
Left middle temporal gyrus	-0.115	0.058	[-0.229 - 0]	-0.882	5.26E-02	3.78E-01	1033	410
Left parahippocampal gyrus	-0.098	0.058	[-0.212 - 0.017]	-1.216	9.93E-02	5.09E-01	1035	408
Left paracentral lobule	-0.060	0.058	[-0.174 - 0.055]	-0.508	3.13E-01	7.41E-01	1032	410
Left pars opercularis of inferior frontal gyrus	-0.167	0.058	[-0.282 - -0.053]	-1.282	4.69E-03	8.37E-02	1034	411
Left pars orbitalis of inferior frontal gyrus	0.003	0.058	[-0.111 - 0.118]	0.030	9.55E-01	9.95E-01	1034	411
Left pars triangularis of inferior frontal gyrus	-0.102	0.058	[-0.216 - 0.013]	-0.850	8.48E-02	4.73E-01	1034	411
Left pericalcarine cortex	0.060	0.058	[-0.055 - 0.174]	0.700	3.11E-01	7.41E-01	1034	409
Left postcentral gyrus	-0.031	0.058	[-0.146 - 0.083]	-0.253	6.00E-01	8.85E-01	1034	409
Left posterior cingulate cortex	-0.093	0.058	[-0.207 - 0.021]	-0.685	1.16E-01	5.43E-01	1034	411
Left precentral gyrus	-0.153	0.058	[-0.268 - -0.039]	-1.233	9.55E-03	1.35E-01	1033	410
Left precuneus	-0.106	0.058	[-0.221 - 0.008]	-0.776	7.20E-02	4.36E-01	1034	411
Left rostral anterior cingulate cortex	-0.134	0.058	[-0.248 - -0.019]	-1.327	2.39E-02	2.46E-01	1034	409
Left rostral middle frontal gyrus	-0.110	0.058	[-0.224 - 0.005]	-0.839	6.38E-02	4.10E-01	1030	409

Left superior frontal gyrus	-0.089	0.058	[-0.203 - 0.026]	-0.656	1.34E-01	5.66E-01	1029	410
Left superior parietal cortex	-0.069	0.058	[-0.183 - 0.046]	-0.535	2.45E-01	6.91E-01	1033	411
Left superior temporal gyrus	-0.092	0.058	[-0.206 - 0.023]	-0.650	1.20E-01	5.48E-01	1035	409
Left supramarginal gyrus	-0.154	0.058	[-0.269 - -0.04]	-1.132	9.05E-03	1.32E-01	1034	410
Left frontal pole	0.073	0.058	[-0.041 - 0.188]	0.871	2.13E-01	6.66E-01	1035	411
Left temporal pole	0.042	0.058	[-0.072 - 0.156]	0.633	4.76E-01	8.38E-01	1035	411
Left transverse temporal gyrus	-0.049	0.058	[-0.163 - 0.066]	-0.521	4.08E-01	8.04E-01	1035	410
Left insula	-0.091	0.058	[-0.205 - 0.024]	-0.632	1.25E-01	5.53E-01	1031	409
Right banks of superior temporal sulcus	-0.072	0.058	[-0.187 - 0.042]	-0.602	2.21E-01	6.74E-01	1033	408
Right caudal anterior cingulate cortex	-0.118	0.058	[-0.233 - -0.004]	-1.239	4.57E-02	3.47E-01	1035	408
Right caudal middle frontal gyrus	-0.091	0.058	[-0.206 - 0.023]	-0.717	1.23E-01	5.53E-01	1035	409
Right cuneus	-0.060	0.058	[-0.175 - 0.054]	-0.563	3.06E-01	7.38E-01	1031	410
Right entorhinal cortex	0.024	0.059	[-0.092 - 0.139]	0.350	6.91E-01	9.26E-01	1030	403
Right fusiform gyrus	-0.078	0.058	[-0.193 - 0.036]	-0.714	1.85E-01	6.38E-01	1035	409
Right inferior parietal cortex	-0.127	0.058	[-0.242 - -0.012]	-0.940	3.18E-02	2.89E-01	1034	409
Right inferior temporal gyrus	0.001	0.058	[-0.114 - 0.115]	0.010	9.88E-01	9.97E-01	1035	410
Right isthmus cingulate cortex	-0.105	0.058	[-0.22 - 0.009]	-0.957	7.47E-02	4.43E-01	1033	409
Right lateral occipital cortex	-0.025	0.058	[-0.139 - 0.09]	-0.181	6.78E-01	9.21E-01	1035	410
Right lateral orbitofrontal cortex	-0.089	0.059	[-0.204 - 0.025]	-0.737	1.31E-01	5.63E-01	1031	408
Right lingual gyrus	-0.047	0.058	[-0.162 - 0.067]	-0.354	4.22E-01	8.15E-01	1035	408
Right medial orbitofrontal cortex	-0.145	0.059	[-0.26 - -0.031]	-1.376	1.41E-02	1.76E-01	1032	408
Right middle temporal gyrus	-0.092	0.058	[-0.206 - 0.022]	-0.843	1.20E-01	5.48E-01	1035	410
Right parahippocampal gyrus	-0.100	0.058	[-0.214 - 0.015]	-1.186	9.15E-02	4.87E-01	1035	409
Right paracentral lobule	-0.078	0.058	[-0.193 - 0.036]	-0.652	1.85E-01	6.38E-01	1032	408
Right pars opercularis of inferior frontal gyrus	-0.179	0.058	[-0.294 - -0.065]	-1.391	2.45E-03	5.18E-02	1034	410
Right pars orbitalis of inferior frontal gyrus	-0.083	0.058	[-0.198 - 0.031]	-0.744	1.59E-01	6.00E-01	1034	410
Right pars triangularis of inferior frontal gyrus	-0.164	0.058	[-0.279 - -0.049]	-1.360	5.57E-03	9.28E-02	1034	410
Right pericalcarine cortex	0.039	0.058	[-0.075 - 0.154]	0.451	5.08E-01	8.43E-01	1034	409
Right postcentral gyrus	-0.070	0.058	[-0.185 - 0.044]	-0.598	2.34E-01	6.87E-01	1034	409
Right posterior cingulate cortex	-0.153	0.058	[-0.267 - -0.038]	-1.176	9.94E-03	1.38E-01	1035	409
Right precentral gyrus	-0.116	0.058	[-0.23 - -0.001]	-0.937	5.07E-02	3.72E-01	1034	409

Right precuneus	-0.137	0.058	[-0.251 - -0.022]	-1.043	2.08E-02	2.25E-01	1035	409
Right rostral anterior cingulate cortex	-0.173	0.058	[-0.287 - -0.058]	-1.714	3.48E-03	6.73E-02	1034	410
Right rostral middle frontal gyrus	-0.150	0.059	[-0.265 - -0.036]	-1.167	1.12E-02	1.49E-01	1029	409
Right superior frontal gyrus	-0.119	0.058	[-0.234 - -0.005]	-0.877	4.41E-02	3.41E-01	1030	409
Right superior parietal cortex	-0.098	0.058	[-0.212 - 0.017]	-0.835	9.88E-02	5.09E-01	1033	410
Right superior temporal gyrus	-0.104	0.058	[-0.219 - 0.01]	-0.802	7.76E-02	4.52E-01	1034	410
Right supramarginal gyrus	-0.195	0.058	[-0.309 - -0.08]	-1.454	1.02E-03	2.50E-02	1031	410
Right frontal pole	-0.022	0.058	[-0.137 - 0.092]	-0.268	7.04E-01	9.26E-01	1032	410
Right temporal pole	0.013	0.058	[-0.101 - 0.127]	0.202	8.26E-01	9.70E-01	1031	410
Right transverse temporal gyrus	0.011	0.058	[-0.104 - 0.125]	0.114	8.58E-01	9.79E-01	1033	410
Right insula	-0.059	0.058	[-0.173 - 0.056]	-0.409	3.19E-01	7.46E-01	1032	409
Left hemisphere average thickness	-0.099	0.059	[-0.213 - 0.016]	-0.547	9.58E-02	5.02E-01	1033	408
Right hemisphere average thickness	-0.125	0.059	[-0.24 - -0.01]	-0.704	3.49E-02	3.06E-01	1034	408

Supplementary Table 30. Cortical surface area differences in adolescents <25 years old (all BD patients compared to controls)

	Cohen's d (Adols BD vs CTL)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.052	0.059	[-0.167 - 0.062]	-0.916	3.77E-01	7.84E-01	1035	407
Left caudal anterior cingulate cortex	-0.063	0.058	[-0.177 - 0.052]	-1.386	2.88E-01	7.21E-01	1034	409
Left caudal middle frontal gyrus	-0.038	0.058	[-0.152 - 0.077]	-0.651	5.26E-01	8.50E-01	1035	410
Left cuneus	-0.015	0.058	[-0.129 - 0.1]	-0.244	8.01E-01	9.62E-01	1035	409
Left entorhinal cortex	-0.056	0.059	[-0.171 - 0.059]	-1.203	3.50E-01	7.73E-01	1029	404
Left fusiform gyrus	-0.002	0.058	[-0.117 - 0.112]	-0.032	9.71E-01	9.97E-01	1035	410
Left inferior parietal cortex	-0.018	0.058	[-0.132 - 0.097]	-0.266	7.64E-01	9.46E-01	1034	409
Left inferior temporal gyrus	0.021	0.058	[-0.093 - 0.135]	0.361	7.23E-01	9.34E-01	1034	410
Left isthmus cingulate cortex	0.100	0.058	[-0.015 - 0.214]	1.857	9.26E-02	4.91E-01	1035	409
Left lateral occipital cortex	0.031	0.058	[-0.083 - 0.146]	0.433	5.97E-01	8.84E-01	1035	410
Left lateral orbitofrontal cortex	0.009	0.058	[-0.106 - 0.124]	0.119	8.79E-01	9.82E-01	1031	408
Left lingual gyrus	-0.052	0.058	[-0.167 - 0.062]	-0.792	3.76E-01	7.84E-01	1035	409
Left medial orbitofrontal cortex	-0.099	0.059	[-0.213 - 0.016]	-1.457	9.66E-02	5.04E-01	1030	408
Left middle temporal gyrus	0.044	0.058	[-0.07 - 0.159]	0.656	4.55E-01	8.31E-01	1033	409
Left parahippocampal gyrus	0.037	0.059	[-0.078 - 0.151]	0.588	5.35E-01	8.53E-01	1035	407
Left paracentral lobule	0.023	0.058	[-0.092 - 0.137]	0.342	7.00E-01	9.26E-01	1034	409
Left pars opercularis of inferior frontal gyrus	-0.062	0.058	[-0.176 - 0.053]	-1.017	2.97E-01	7.27E-01	1034	409
Left pars orbitalis of inferior frontal gyrus	0.010	0.058	[-0.105 - 0.124]	0.137	8.72E-01	9.82E-01	1035	410
Left pars triangularis of inferior frontal gyrus	-0.036	0.058	[-0.15 - 0.079]	-0.567	5.49E-01	8.61E-01	1033	409
Left pericalcarine cortex	-0.029	0.058	[-0.144 - 0.085]	-0.539	6.19E-01	8.93E-01	1034	409
Left postcentral gyrus	-0.068	0.058	[-0.183 - 0.047]	-0.853	2.51E-01	6.93E-01	1033	408
Left posterior cingulate cortex	-0.067	0.058	[-0.181 - 0.048]	-1.121	2.58E-01	7.00E-01	1035	409
Left precentral gyrus	-0.068	0.058	[-0.183 - 0.046]	-0.843	2.51E-01	6.93E-01	1034	409
Left precuneus	0.008	0.058	[-0.107 - 0.122]	0.103	8.95E-01	9.83E-01	1035	410
Left rostral anterior cingulate cortex	-0.057	0.058	[-0.172 - 0.057]	-1.202	3.33E-01	7.57E-01	1034	409
Left rostral middle frontal gyrus	0.025	0.058	[-0.09 - 0.14]	0.367	6.74E-01	9.20E-01	1031	408

Left superior frontal gyrus	0.001	0.058	[-0.114 - 0.115]	0.011	9.88E-01	9.97E-01	1031	409
Left superior parietal cortex	0.014	0.058	[-0.1 - 0.128]	0.179	8.13E-01	9.66E-01	1034	410
Left superior temporal gyrus	-0.054	0.059	[-0.169 - 0.061]	-0.683	3.61E-01	7.78E-01	1035	407
Left supramarginal gyrus	-0.065	0.058	[-0.179 - 0.05]	-0.990	2.74E-01	7.13E-01	1034	408
Left frontal pole	-0.065	0.058	[-0.18 - 0.049]	-1.157	2.71E-01	7.08E-01	1035	410
Left temporal pole	0.016	0.058	[-0.099 - 0.13]	0.247	7.89E-01	9.58E-01	1035	410
Left transverse temporal gyrus	-0.071	0.058	[-0.186 - 0.043]	-1.235	2.28E-01	6.81E-01	1034	410
Left insula	-0.184	0.059	[-0.299 - -0.069]	-2.417	1.96E-03	4.35E-02	1032	408
Right banks of superior temporal sulcus	-0.006	0.059	[-0.121 - 0.109]	-0.110	9.21E-01	9.85E-01	1033	407
Right caudal anterior cingulate cortex	0.020	0.058	[-0.095 - 0.134]	0.435	7.38E-01	9.38E-01	1035	408
Right caudal middle frontal gyrus	0.000	0.058	[-0.114 - 0.115]	0.004	9.97E-01	9.99E-01	1035	408
Right cuneus	-0.018	0.058	[-0.132 - 0.097]	-0.269	7.67E-01	9.47E-01	1034	409
Right entorhinal cortex	0.028	0.059	[-0.088 - 0.143]	0.657	6.42E-01	9.07E-01	1030	402
Right fusiform gyrus	-0.054	0.058	[-0.169 - 0.06]	-0.792	3.61E-01	7.78E-01	1035	408
Right inferior parietal cortex	0.070	0.058	[-0.045 - 0.184]	1.052	2.39E-01	6.89E-01	1034	408
Right inferior temporal gyrus	0.017	0.058	[-0.097 - 0.132]	0.298	7.71E-01	9.49E-01	1035	409
Right isthmus cingulate cortex	0.094	0.058	[-0.021 - 0.209]	1.711	1.13E-01	5.38E-01	1033	409
Right lateral occipital cortex	-0.016	0.058	[-0.131 - 0.098]	-0.232	7.82E-01	9.55E-01	1035	408
Right lateral orbitofrontal cortex	-0.082	0.059	[-0.196 - 0.033]	-1.110	1.69E-01	6.12E-01	1030	407
Right lingual gyrus	-0.032	0.058	[-0.147 - 0.082]	-0.477	5.88E-01	8.80E-01	1035	408
Right medial orbitofrontal cortex	0.022	0.059	[-0.092 - 0.137]	0.305	7.07E-01	9.26E-01	1031	407
Right middle temporal gyrus	-0.004	0.058	[-0.118 - 0.111]	-0.058	9.50E-01	9.94E-01	1035	409
Right parahippocampal gyrus	-0.015	0.058	[-0.13 - 0.099]	-0.233	7.99E-01	9.61E-01	1035	408
Right paracentral lobule	-0.068	0.059	[-0.183 - 0.046]	-1.089	2.49E-01	6.91E-01	1033	407
Right pars opercularis of inferior frontal gyrus	0.026	0.059	[-0.088 - 0.141]	0.450	6.57E-01	9.13E-01	1035	406
Right pars orbitalis of inferior frontal gyrus	-0.012	0.058	[-0.126 - 0.103]	-0.168	8.42E-01	9.74E-01	1035	409
Right pars triangularis of inferior frontal gyrus	-0.038	0.059	[-0.153 - 0.077]	-0.658	5.21E-01	8.47E-01	1035	407
Right pericalcarine cortex	0.020	0.058	[-0.094 - 0.135]	0.377	7.29E-01	9.35E-01	1035	409
Right postcentral gyrus	0.004	0.059	[-0.111 - 0.119]	0.053	9.45E-01	9.93E-01	1034	406
Right posterior cingulate cortex	-0.048	0.058	[-0.163 - 0.066]	-0.791	4.17E-01	8.10E-01	1035	409
Right precentral gyrus	-0.023	0.058	[-0.137 - 0.092]	-0.284	6.99E-01	9.26E-01	1034	409

Right precuneus	0.057	0.058	[-0.058 - 0.172]	0.761	3.36E-01	7.61E-01	1035	408
Right rostral anterior cingulate cortex	-0.094	0.058	[-0.209 - 0.021]	-2.075	1.13E-01	5.38E-01	1035	408
Right rostral middle frontal gyrus	0.030	0.059	[-0.085 - 0.144]	0.447	6.17E-01	8.92E-01	1030	407
Right superior frontal gyrus	-0.023	0.058	[-0.138 - 0.091]	-0.309	6.93E-01	9.26E-01	1030	408
Right superior parietal cortex	-0.083	0.058	[-0.197 - 0.032]	-1.020	1.63E-01	6.04E-01	1032	409
Right superior temporal gyrus	-0.059	0.058	[-0.174 - 0.055]	-0.736	3.15E-01	7.44E-01	1033	409
Right supramarginal gyrus	-0.002	0.058	[-0.116 - 0.113]	-0.025	9.78E-01	9.97E-01	1031	408
Right frontal pole	0.054	0.058	[-0.061 - 0.168]	0.923	3.66E-01	7.81E-01	1035	409
Right temporal pole	0.070	0.058	[-0.044 - 0.185]	1.111	2.37E-01	6.88E-01	1031	409
Right transverse temporal gyrus	-0.036	0.058	[-0.15 - 0.079]	-0.650	5.47E-01	8.61E-01	1035	409
Right insula	-0.116	0.059	[-0.231 - -0.001]	-1.602	5.06E-02	3.72E-01	1032	408
Left hemisphere total surface area	-0.047	0.059	[-0.163 - 0.069]	-0.507	4.32E-01	8.22E-01	1033	398
Right hemisphere total surface area	-0.036	0.059	[-0.152 - 0.08]	-0.393	5.46E-01	8.60E-01	1033	398

Supplementary Table 31. Cortical surface area differences in adolescents without controlling for ICV (all BD patients compared to controls)

	Cohen's d (Adols BD vs CTL noICV)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.029	0.059	[-0.144 - 0.085]	-0.512	6.21E-01	8.95E-01	1035	407
Left caudal anterior cingulate cortex	-0.039	0.058	[-0.154 - 0.075]	-0.860	5.10E-01	8.43E-01	1034	409
Left caudal middle frontal gyrus	0.001	0.058	[-0.114 - 0.115]	0.014	9.89E-01	9.97E-01	1035	410
Left cuneus	0.006	0.058	[-0.108 - 0.121]	0.104	9.14E-01	9.83E-01	1035	409
Left entorhinal cortex	-0.034	0.059	[-0.149 - 0.081]	-0.728	5.71E-01	8.74E-01	1029	404
Left fusiform gyrus	0.037	0.058	[-0.078 - 0.151]	0.541	5.37E-01	8.53E-01	1035	410
Left inferior parietal cortex	0.013	0.058	[-0.101 - 0.128]	0.199	8.22E-01	9.69E-01	1034	409
Left inferior temporal gyrus	0.053	0.058	[-0.061 - 0.168]	0.915	3.69E-01	7.83E-01	1034	410
Left isthmus cingulate cortex	0.115	0.058	[0 - 0.229]	2.136	5.29E-02	3.78E-01	1035	409
Left lateral occipital cortex	0.071	0.058	[-0.043 - 0.186]	0.985	2.29E-01	6.82E-01	1035	410
Left lateral orbitofrontal cortex	0.042	0.058	[-0.072 - 0.157]	0.559	4.74E-01	8.37E-01	1031	408
Left lingual gyrus	-0.023	0.058	[-0.138 - 0.091]	-0.348	6.97E-01	9.26E-01	1035	409
Left medial orbitofrontal cortex	-0.060	0.059	[-0.175 - 0.054]	-0.893	3.08E-01	7.39E-01	1030	408
Left middle temporal gyrus	0.080	0.058	[-0.034 - 0.195]	1.190	1.75E-01	6.21E-01	1033	409
Left parahippocampal gyrus	0.059	0.059	[-0.056 - 0.174]	0.947	3.18E-01	7.46E-01	1035	407
Left paracentral lobule	0.043	0.058	[-0.071 - 0.158]	0.650	4.64E-01	8.33E-01	1034	409
Left pars opercularis of inferior frontal gyrus	-0.034	0.058	[-0.149 - 0.08]	-0.562	5.64E-01	8.70E-01	1034	409
Left pars orbitalis of inferior frontal gyrus	0.036	0.058	[-0.078 - 0.151]	0.524	5.39E-01	8.54E-01	1035	410
Left pars triangularis of inferior frontal gyrus	-0.009	0.058	[-0.123 - 0.106]	-0.142	8.81E-01	9.82E-01	1033	409
Left pericalcarine cortex	-0.005	0.058	[-0.119 - 0.11]	-0.091	9.33E-01	9.89E-01	1034	409
Left postcentral gyrus	-0.026	0.058	[-0.141 - 0.089]	-0.325	6.62E-01	9.15E-01	1033	408
Left posterior cingulate cortex	-0.037	0.058	[-0.151 - 0.078]	-0.615	5.35E-01	8.53E-01	1035	409
Left precentral gyrus	-0.037	0.058	[-0.151 - 0.078]	-0.453	5.36E-01	8.53E-01	1034	409
Left precuneus	0.037	0.058	[-0.078 - 0.151]	0.483	5.35E-01	8.53E-01	1035	410
Left rostral anterior cingulate cortex	-0.016	0.058	[-0.131 - 0.098]	-0.345	7.81E-01	9.55E-01	1034	409
Left rostral middle frontal gyrus	0.054	0.058	[-0.06 - 0.169]	0.799	3.60E-01	7.78E-01	1031	408

Left superior frontal gyrus	0.043	0.058	[-0.072 - 0.157]	0.544	4.69E-01	8.34E-01	1031	409
Left superior parietal cortex	0.050	0.058	[-0.065 - 0.164]	0.631	4.02E-01	8.00E-01	1034	410
Left superior temporal gyrus	-0.004	0.059	[-0.119 - 0.11]	-0.054	9.43E-01	9.92E-01	1035	407
Left supramarginal gyrus	-0.013	0.058	[-0.127 - 0.102]	-0.195	8.30E-01	9.72E-01	1034	408
Left frontal pole	-0.048	0.058	[-0.162 - 0.067]	-0.844	4.22E-01	8.14E-01	1035	410
Left temporal pole	0.037	0.058	[-0.077 - 0.152]	0.581	5.29E-01	8.51E-01	1035	410
Left transverse temporal gyrus	-0.038	0.058	[-0.152 - 0.076]	-0.658	5.20E-01	8.47E-01	1034	410
Left insula	-0.133	0.059	[-0.247 - -0.018]	-1.743	2.54E-02	2.57E-01	1032	408
Right banks of superior temporal sulcus	0.025	0.059	[-0.09 - 0.14]	0.465	6.75E-01	9.20E-01	1033	407
Right caudal anterior cingulate cortex	0.045	0.058	[-0.069 - 0.16]	0.997	4.44E-01	8.24E-01	1035	408
Right caudal middle frontal gyrus	0.021	0.058	[-0.094 - 0.135]	0.382	7.27E-01	9.34E-01	1035	408
Right cuneus	0.015	0.058	[-0.099 - 0.13]	0.233	7.98E-01	9.61E-01	1034	409
Right entorhinal cortex	0.044	0.059	[-0.071 - 0.159]	1.043	4.60E-01	8.33E-01	1030	402
Right fusiform gyrus	-0.003	0.058	[-0.118 - 0.111]	-0.046	9.58E-01	9.95E-01	1035	408
Right inferior parietal cortex	0.097	0.058	[-0.018 - 0.212]	1.463	1.01E-01	5.11E-01	1034	408
Right inferior temporal gyrus	0.053	0.058	[-0.061 - 0.168]	0.914	3.70E-01	7.83E-01	1035	409
Right isthmus cingulate cortex	0.102	0.058	[-0.013 - 0.216]	1.852	8.59E-02	4.76E-01	1033	409
Right lateral occipital cortex	0.017	0.058	[-0.098 - 0.131]	0.233	7.80E-01	9.55E-01	1035	408
Right lateral orbitofrontal cortex	-0.040	0.059	[-0.155 - 0.075]	-0.545	4.99E-01	8.43E-01	1030	407
Right lingual gyrus	-0.001	0.058	[-0.115 - 0.114]	-0.011	9.90E-01	9.97E-01	1035	408
Right medial orbitofrontal cortex	0.058	0.059	[-0.057 - 0.172]	0.787	3.31E-01	7.56E-01	1031	407
Right middle temporal gyrus	0.038	0.058	[-0.076 - 0.153]	0.588	5.19E-01	8.47E-01	1035	409
Right parahippocampal gyrus	0.019	0.058	[-0.095 - 0.134]	0.299	7.43E-01	9.39E-01	1035	408
Right paracentral lobule	-0.039	0.059	[-0.154 - 0.075]	-0.625	5.08E-01	8.43E-01	1033	407
Right pars opercularis of inferior frontal gyrus	0.047	0.059	[-0.068 - 0.162]	0.799	4.30E-01	8.22E-01	1035	406
Right pars orbitalis of inferior frontal gyrus	0.017	0.058	[-0.097 - 0.132]	0.245	7.71E-01	9.49E-01	1035	409
Right pars triangularis of inferior frontal gyrus	-0.014	0.059	[-0.128 - 0.101]	-0.237	8.17E-01	9.67E-01	1035	407
Right pericalcarine cortex	0.044	0.058	[-0.07 - 0.159]	0.813	4.56E-01	8.31E-01	1035	409
Right postcentral gyrus	0.027	0.059	[-0.088 - 0.141]	0.343	6.54E-01	9.13E-01	1034	406
Right posterior cingulate cortex	-0.011	0.058	[-0.126 - 0.103]	-0.188	8.47E-01	9.76E-01	1035	409
Right precentral gyrus	0.009	0.058	[-0.106 - 0.123]	0.105	8.86E-01	9.82E-01	1034	409

Right precuneus	0.080	0.058	[-0.035 - 0.194]	1.064	1.78E-01	6.28E-01	1035	408
Right rostral anterior cingulate cortex	-0.063	0.058	[-0.177 - 0.052]	-1.382	2.91E-01	7.22E-01	1035	408
Right rostral middle frontal gyrus	0.061	0.059	[-0.054 - 0.175]	0.913	3.07E-01	7.38E-01	1030	407
Right superior frontal gyrus	0.023	0.058	[-0.092 - 0.137]	0.298	7.03E-01	9.26E-01	1030	408
Right superior parietal cortex	-0.037	0.058	[-0.151 - 0.078]	-0.453	5.36E-01	8.53E-01	1032	409
Right superior temporal gyrus	-0.008	0.058	[-0.123 - 0.106]	-0.103	8.89E-01	9.82E-01	1033	409
Right supramarginal gyrus	0.030	0.058	[-0.084 - 0.145]	0.463	6.11E-01	8.88E-01	1031	408
Right frontal pole	0.068	0.058	[-0.046 - 0.183]	1.178	2.49E-01	6.91E-01	1035	409
Right temporal pole	0.089	0.058	[-0.026 - 0.203]	1.405	1.35E-01	5.66E-01	1031	409
Right transverse temporal gyrus	-0.010	0.058	[-0.125 - 0.104]	-0.183	8.65E-01	9.81E-01	1035	409
Right insula	-0.070	0.058	[-0.185 - 0.044]	-0.971	2.35E-01	6.88E-01	1032	408
Left hemisphere total surface area	0.006	0.059	[-0.11 - 0.122]	0.066	9.19E-01	9.83E-01	1033	398
Right hemisphere total surface area	0.014	0.059	[-0.101 - 0.13]	0.155	8.11E-01	9.66E-01	1033	398

Supplementary Table 32. Sex-by-Diagnosis interaction on cortical thickness differences in adolescents <25 years old (all BD patients compared to controls)

	Cohen's d (Adols BD vs CTL SexXDx)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.009	0.058	[-0.106 - 0.123]	0.072	8.81E-01	9.82E-01	1035	408
Left caudal anterior cingulate cortex	0.083	0.058	[-0.032 - 0.197]	0.875	1.61E-01	6.01E-01	1034	409
Left caudal middle frontal gyrus	0.121	0.058	[0.006 - 0.235]	0.943	4.10E-02	3.33E-01	1035	410
Left cuneus	0.079	0.058	[-0.035 - 0.194]	0.743	1.81E-01	6.29E-01	1034	410
Left entorhinal cortex	0.070	0.059	[-0.045 - 0.185]	0.955	2.40E-01	6.90E-01	1031	405
Left fusiform gyrus	0.005	0.058	[-0.109 - 0.119]	0.046	9.31E-01	9.89E-01	1035	411
Left inferior parietal cortex	0.074	0.058	[-0.04 - 0.188]	0.527	2.10E-01	6.62E-01	1034	411
Left inferior temporal gyrus	0.074	0.058	[-0.041 - 0.188]	0.767	2.12E-01	6.65E-01	1034	411
Left isthmus cingulate cortex	0.028	0.058	[-0.086 - 0.143]	0.256	6.31E-01	9.00E-01	1034	410
Left lateral occipital cortex	0.023	0.058	[-0.092 - 0.137]	0.161	7.00E-01	9.26E-01	1035	410
Left lateral orbitofrontal cortex	0.112	0.058	[-0.003 - 0.227]	0.904	5.85E-02	3.93E-01	1030	409
Left lingual gyrus	0.054	0.058	[-0.06 - 0.168]	0.405	3.61E-01	7.78E-01	1035	411
Left medial orbitofrontal cortex	0.112	0.058	[-0.003 - 0.227]	1.078	5.88E-02	3.93E-01	1030	409
Left middle temporal gyrus	0.096	0.058	[-0.018 - 0.211]	0.740	1.04E-01	5.16E-01	1033	410
Left parahippocampal gyrus	0.040	0.058	[-0.075 - 0.154]	0.495	5.02E-01	8.43E-01	1035	408
Left paracentral lobule	0.021	0.058	[-0.093 - 0.136]	0.181	7.19E-01	9.32E-01	1032	410
Left pars opercularis of inferior frontal gyrus	0.163	0.058	[0.049 - 0.278]	1.254	5.71E-03	9.38E-02	1034	411
Left pars orbitalis of inferior frontal gyrus	0.016	0.058	[-0.099 - 0.13]	0.141	7.92E-01	9.58E-01	1034	411
Left pars triangularis of inferior frontal gyrus	0.157	0.058	[0.043 - 0.272]	1.315	7.77E-03	1.19E-01	1034	411
Left pericalcarine cortex	0.091	0.058	[-0.023 - 0.206]	1.068	1.22E-01	5.52E-01	1034	409
Left postcentral gyrus	0.118	0.058	[0.004 - 0.233]	0.965	4.53E-02	3.45E-01	1034	409
Left posterior cingulate cortex	0.019	0.058	[-0.096 - 0.133]	0.138	7.52E-01	9.42E-01	1034	411
Left precentral gyrus	0.068	0.058	[-0.046 - 0.183]	0.549	2.49E-01	6.91E-01	1033	410
Left precuneus	0.089	0.058	[-0.026 - 0.203]	0.648	1.33E-01	5.66E-01	1034	411
Left rostral anterior cingulate cortex	0.046	0.058	[-0.069 - 0.16]	0.455	4.39E-01	8.23E-01	1034	409

Left rostral middle frontal gyrus	0.077	0.058	[-0.038 - 0.191]	0.587	1.95E-01	6.45E-01	1030	409
Left superior frontal gyrus	0.163	0.058	[0.048 - 0.277]	1.203	6.01E-03	9.79E-02	1029	410
Left superior parietal cortex	0.069	0.058	[-0.045 - 0.184]	0.540	2.41E-01	6.90E-01	1033	411
Left superior temporal gyrus	0.115	0.058	[0.001 - 0.23]	0.816	5.12E-02	3.75E-01	1035	409
Left supramarginal gyrus	0.152	0.058	[0.038 - 0.267]	1.115	1.02E-02	1.40E-01	1034	410
Left frontal pole	0.075	0.058	[-0.04 - 0.189]	0.886	2.06E-01	6.59E-01	1035	411
Left temporal pole	0.200	0.058	[0.086 - 0.315]	3.018	7.00E-04	1.89E-02	1035	411
Left transverse temporal gyrus	0.001	0.058	[-0.114 - 0.115]	0.005	9.93E-01	9.98E-01	1035	410
Left insula	0.198	0.059	[0.084 - 0.313]	1.381	8.16E-04	2.16E-02	1031	409
Right banks of superior temporal sulcus	0.040	0.058	[-0.074 - 0.155]	0.335	4.96E-01	8.43E-01	1033	408
Right caudal anterior cingulate cortex	0.010	0.058	[-0.105 - 0.124]	0.104	8.67E-01	9.81E-01	1035	408
Right caudal middle frontal gyrus	0.048	0.058	[-0.066 - 0.163]	0.380	4.14E-01	8.08E-01	1035	409
Right cuneus	0.091	0.058	[-0.024 - 0.205]	0.845	1.25E-01	5.53E-01	1031	410
Right entorhinal cortex	0.121	0.059	[0.006 - 0.236]	1.794	4.22E-02	3.35E-01	1030	403
Right fusiform gyrus	0.095	0.058	[-0.02 - 0.209]	0.861	1.10E-01	5.30E-01	1035	409
Right inferior parietal cortex	0.155	0.058	[0.04 - 0.269]	1.145	8.93E-03	1.31E-01	1034	409
Right inferior temporal gyrus	0.103	0.058	[-0.012 - 0.217]	1.143	8.17E-02	4.66E-01	1035	410
Right isthmus cingulate cortex	0.039	0.058	[-0.075 - 0.154]	0.355	5.09E-01	8.43E-01	1033	409
Right lateral occipital cortex	0.044	0.058	[-0.071 - 0.158]	0.322	4.61E-01	8.33E-01	1035	410
Right lateral orbitofrontal cortex	0.087	0.059	[-0.027 - 0.202]	0.720	1.40E-01	5.74E-01	1031	408
Right lingual gyrus	0.040	0.058	[-0.075 - 0.154]	0.296	5.02E-01	8.43E-01	1035	408
Right medial orbitofrontal cortex	0.070	0.058	[-0.045 - 0.185]	0.663	2.37E-01	6.88E-01	1032	408
Right middle temporal gyrus	0.129	0.058	[0.014 - 0.243]	1.182	2.92E-02	2.75E-01	1035	410
Right parahippocampal gyrus	0.069	0.058	[-0.045 - 0.184]	0.823	2.42E-01	6.90E-01	1035	409
Right paracentral lobule	0.084	0.059	[-0.03 - 0.199]	0.702	1.54E-01	5.93E-01	1032	408
Right pars opercularis of inferior frontal gyrus	0.154	0.058	[0.039 - 0.269]	1.195	9.24E-03	1.33E-01	1034	410
Right pars orbitalis of inferior frontal gyrus	0.082	0.058	[-0.033 - 0.196]	0.728	1.68E-01	6.12E-01	1034	410
Right pars triangularis of inferior frontal gyrus	0.264	0.059	[0.149 - 0.379]	2.189	8.56E-06	4.50E-04	1034	410
Right pericalcarine cortex	-0.006	0.058	[-0.121 - 0.108]	-0.071	9.17E-01	9.83E-01	1034	409
Right postcentral gyrus	0.060	0.058	[-0.054 - 0.175]	0.513	3.07E-01	7.38E-01	1034	409
Right posterior cingulate cortex	0.018	0.058	[-0.096 - 0.133]	0.140	7.59E-01	9.45E-01	1035	409

Right precentral gyrus	0.035	0.058	[-0.079 - 0.15]	0.288	5.49E-01	8.61E-01	1034	409
Right precuneus	0.093	0.058	[-0.021 - 0.208]	0.713	1.14E-01	5.41E-01	1035	409
Right rostral anterior cingulate cortex	0.005	0.058	[-0.109 - 0.12]	0.052	9.29E-01	9.89E-01	1034	410
Right rostral middle frontal gyrus	0.147	0.059	[0.032 - 0.261]	1.140	1.32E-02	1.66E-01	1029	409
Right superior frontal gyrus	0.186	0.059	[0.071 - 0.301]	1.370	1.70E-03	3.88E-02	1030	409
Right superior parietal cortex	0.073	0.058	[-0.041 - 0.187]	0.626	2.17E-01	6.70E-01	1033	410
Right superior temporal gyrus	0.144	0.058	[0.03 - 0.259]	1.110	1.47E-02	1.80E-01	1034	410
Right supramarginal gyrus	0.121	0.058	[0.007 - 0.236]	0.907	4.04E-02	3.30E-01	1031	410
Right frontal pole	0.104	0.058	[-0.01 - 0.219]	1.241	7.83E-02	4.53E-01	1032	410
Right temporal pole	0.151	0.058	[0.036 - 0.265]	2.342	1.09E-02	1.46E-01	1031	410
Right transverse temporal gyrus	0.056	0.058	[-0.058 - 0.171]	0.608	3.42E-01	7.68E-01	1033	410
Right insula	0.164	0.059	[0.049 - 0.278]	1.135	5.74E-03	9.39E-02	1032	409
Left hemisphere average thickness	0.145	0.059	[0.03 - 0.26]	0.804	1.44E-02	1.78E-01	1033	408
Right hemisphere average thickness	0.165	0.059	[0.05 - 0.28]	0.929	5.43E-03	9.11E-02	1034	408

Supplementary Table 33. Sex-by-Diagnosis interaction on cortical surface area differences in adolescents <25 years old (all BD patients compared to controls)

	Cohen's d (Adols BD vs CTL SexXDx)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.044	0.059	[-0.159 - 0.07]	-0.776	4.54E-01	8.30E-01	1035	407
Left caudal anterior cingulate cortex	0.015	0.058	[-0.099 - 0.13]	0.341	7.94E-01	9.58E-01	1034	409
Left caudal middle frontal gyrus	-0.104	0.058	[-0.219 - 0.01]	-1.809	7.81E-02	4.53E-01	1035	410
Left cuneus	-0.015	0.058	[-0.129 - 0.1]	-0.243	8.01E-01	9.62E-01	1035	409
Left entorhinal cortex	-0.078	0.059	[-0.194 - 0.037]	-1.695	1.88E-01	6.42E-01	1029	404
Left fusiform gyrus	-0.112	0.058	[-0.227 - 0.002]	-1.662	5.80E-02	3.92E-01	1035	410
Left inferior parietal cortex	-0.021	0.058	[-0.136 - 0.093]	-0.316	7.22E-01	9.34E-01	1034	409
Left inferior temporal gyrus	-0.137	0.058	[-0.251 - -0.022]	-2.353	2.11E-02	2.27E-01	1034	410
Left isthmus cingulate cortex	-0.004	0.058	[-0.119 - 0.11]	-0.083	9.40E-01	9.92E-01	1035	409
Left lateral occipital cortex	-0.045	0.058	[-0.16 - 0.069]	-0.626	4.45E-01	8.24E-01	1035	410
Left lateral orbitofrontal cortex	-0.144	0.059	[-0.259 - -0.029]	-1.895	1.53E-02	1.83E-01	1031	408
Left lingual gyrus	-0.114	0.058	[-0.228 - 0.001]	-1.718	5.50E-02	3.84E-01	1035	409
Left medial orbitofrontal cortex	-0.054	0.059	[-0.169 - 0.06]	-0.804	3.60E-01	7.78E-01	1030	408
Left middle temporal gyrus	-0.067	0.058	[-0.181 - 0.048]	-0.989	2.60E-01	7.02E-01	1033	409
Left parahippocampal gyrus	-0.105	0.059	[-0.22 - 0.01]	-1.677	7.74E-02	4.52E-01	1035	407
Left paracentral lobule	-0.084	0.058	[-0.199 - 0.03]	-1.268	1.54E-01	5.93E-01	1034	409
Left pars opercularis of inferior frontal gyrus	0.003	0.058	[-0.112 - 0.117]	0.042	9.65E-01	9.96E-01	1034	409
Left pars orbitalis of inferior frontal gyrus	-0.051	0.058	[-0.166 - 0.063]	-0.737	3.87E-01	7.88E-01	1035	410
Left pars triangularis of inferior frontal gyrus	0.131	0.058	[0.016 - 0.246]	2.093	2.71E-02	2.65E-01	1033	409
Left pericalcarine cortex	-0.065	0.058	[-0.179 - 0.05]	-1.182	2.75E-01	7.13E-01	1034	409
Left postcentral gyrus	-0.072	0.058	[-0.187 - 0.042]	-0.908	2.22E-01	6.75E-01	1033	408
Left posterior cingulate cortex	-0.074	0.058	[-0.188 - 0.041]	-1.233	2.14E-01	6.66E-01	1035	409
Left precentral gyrus	0.015	0.058	[-0.099 - 0.13]	0.188	7.98E-01	9.61E-01	1034	409
Left precuneus	-0.114	0.058	[-0.229 - 0]	-1.506	5.37E-02	3.79E-01	1035	410
Left rostral anterior cingulate cortex	-0.025	0.058	[-0.139 - 0.09]	-0.518	6.76E-01	9.20E-01	1034	409

Left rostral middle frontal gyrus	-0.067	0.059	[-0.182 - 0.048]	-0.988	2.58E-01	7.00E-01	1031	408
Left superior frontal gyrus	0.008	0.058	[-0.106 - 0.123]	0.102	8.92E-01	9.82E-01	1031	409
Left superior parietal cortex	-0.071	0.058	[-0.185 - 0.043]	-0.905	2.31E-01	6.85E-01	1034	410
Left superior temporal gyrus	-0.040	0.059	[-0.155 - 0.075]	-0.504	5.01E-01	8.43E-01	1035	407
Left supramarginal gyrus	-0.077	0.058	[-0.192 - 0.037]	-1.182	1.92E-01	6.44E-01	1034	408
Left frontal pole	0.015	0.058	[-0.1 - 0.129]	0.263	8.03E-01	9.62E-01	1035	410
Left temporal pole	0.046	0.058	[-0.069 - 0.16]	0.712	4.41E-01	8.23E-01	1035	410
Left transverse temporal gyrus	0.064	0.058	[-0.05 - 0.178]	1.108	2.80E-01	7.13E-01	1034	410
Left insula	-0.017	0.058	[-0.132 - 0.097]	-0.226	7.72E-01	9.50E-01	1032	408
Right banks of superior temporal sulcus	-0.021	0.059	[-0.136 - 0.094]	-0.391	7.24E-01	9.34E-01	1033	407
Right caudal anterior cingulate cortex	-0.008	0.058	[-0.123 - 0.106]	-0.183	8.88E-01	9.82E-01	1035	408
Right caudal middle frontal gyrus	-0.106	0.058	[-0.22 - 0.009]	-1.955	7.44E-02	4.42E-01	1035	408
Right cuneus	-0.043	0.058	[-0.158 - 0.071]	-0.661	4.67E-01	8.33E-01	1034	409
Right entorhinal cortex	-0.177	0.059	[-0.292 - -0.061]	-4.181	3.13E-03	6.20E-02	1030	402
Right fusiform gyrus	-0.038	0.058	[-0.152 - 0.077]	-0.553	5.23E-01	8.48E-01	1035	408
Right inferior parietal cortex	-0.043	0.058	[-0.158 - 0.071]	-0.649	4.67E-01	8.33E-01	1034	408
Right inferior temporal gyrus	-0.109	0.058	[-0.223 - 0.006]	-1.876	6.63E-02	4.15E-01	1035	409
Right isthmus cingulate cortex	-0.064	0.058	[-0.178 - 0.051]	-1.160	2.82E-01	7.18E-01	1033	409
Right lateral occipital cortex	-0.028	0.058	[-0.143 - 0.087]	-0.395	6.36E-01	9.04E-01	1035	408
Right lateral orbitofrontal cortex	-0.021	0.059	[-0.136 - 0.094]	-0.285	7.24E-01	9.34E-01	1030	407
Right lingual gyrus	-0.167	0.059	[-0.281 - -0.052]	-2.474	4.97E-03	8.77E-02	1035	408
Right medial orbitofrontal cortex	-0.029	0.059	[-0.143 - 0.086]	-0.389	6.31E-01	8.99E-01	1031	407
Right middle temporal gyrus	-0.098	0.058	[-0.212 - 0.017]	-1.506	9.91E-02	5.09E-01	1035	409
Right parahippocampal gyrus	-0.130	0.059	[-0.244 - -0.015]	-1.998	2.89E-02	2.73E-01	1035	408
Right paracentral lobule	0.035	0.059	[-0.08 - 0.149]	0.552	5.59E-01	8.67E-01	1033	407
Right pars opercularis of inferior frontal gyrus	0.000	0.059	[-0.114 - 0.115]	0.008	9.94E-01	9.98E-01	1035	406
Right pars orbitalis of inferior frontal gyrus	0.036	0.058	[-0.079 - 0.15]	0.505	5.48E-01	8.61E-01	1035	409
Right pars triangularis of inferior frontal gyrus	0.061	0.059	[-0.054 - 0.175]	1.048	3.07E-01	7.38E-01	1035	407
Right pericalcarine cortex	-0.088	0.058	[-0.202 - 0.027]	-1.612	1.39E-01	5.71E-01	1035	409
Right postcentral gyrus	-0.059	0.059	[-0.174 - 0.056]	-0.759	3.22E-01	7.47E-01	1034	406
Right posterior cingulate cortex	-0.081	0.058	[-0.196 - 0.033]	-1.337	1.70E-01	6.14E-01	1035	409

Right precentral gyrus	0.051	0.058	[-0.063 - 0.166]	0.638	3.85E-01	7.87E-01	1034	409
Right precuneus	-0.101	0.058	[-0.215 - 0.014]	-1.342	8.99E-02	4.87E-01	1035	408
Right rostral anterior cingulate cortex	-0.026	0.058	[-0.141 - 0.088]	-0.585	6.55E-01	9.13E-01	1035	408
Right rostral middle frontal gyrus	-0.069	0.059	[-0.183 - 0.046]	-1.032	2.48E-01	6.91E-01	1030	407
Right superior frontal gyrus	-0.004	0.058	[-0.118 - 0.111]	-0.047	9.52E-01	9.95E-01	1030	408
Right superior parietal cortex	-0.144	0.058	[-0.259 - -0.03]	-1.784	1.49E-02	1.81E-01	1032	409
Right superior temporal gyrus	0.008	0.058	[-0.107 - 0.122]	0.094	8.98E-01	9.83E-01	1033	409
Right supramarginal gyrus	-0.001	0.058	[-0.116 - 0.113]	-0.021	9.82E-01	9.97E-01	1031	408
Right frontal pole	-0.125	0.058	[-0.24 - -0.011]	-2.157	3.48E-02	3.06E-01	1035	409
Right temporal pole	0.037	0.058	[-0.078 - 0.151]	0.586	5.33E-01	8.53E-01	1031	409
Right transverse temporal gyrus	0.016	0.058	[-0.099 - 0.13]	0.286	7.91E-01	9.58E-01	1035	409
Right insula	-0.024	0.058	[-0.139 - 0.091]	-0.332	6.85E-01	9.25E-01	1032	408
Left hemisphere total surface area	-0.087	0.059	[-0.203 - 0.028]	-0.941	1.44E-01	5.78E-01	1033	398
Right hemisphere total surface area	-0.086	0.059	[-0.202 - 0.029]	-0.940	1.49E-01	5.85E-01	1033	398

Supplementary Table 34. Age-by-Diagnosis interaction on cortical thickness differences in adolescents <25 years old (all BD patients compared to controls)

	Cohen's d (Adols BD vs CTL AgeXDx)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.255	0.059	[-0.37 - -0.14]	-2.071	1.71E-05	7.78E-04	1035	408
Left caudal anterior cingulate cortex	-0.142	0.058	[-0.257 - -0.027]	-1.499	1.64E-02	1.90E-01	1034	409
Left caudal middle frontal gyrus	-0.147	0.058	[-0.262 - -0.033]	-1.149	1.27E-02	1.63E-01	1035	410
Left cuneus	-0.081	0.058	[-0.196 - 0.033]	-0.762	1.70E-01	6.14E-01	1034	410
Left entorhinal cortex	-0.070	0.059	[-0.185 - 0.045]	-0.961	2.37E-01	6.88E-01	1031	405
Left fusiform gyrus	-0.195	0.058	[-0.309 - -0.08]	-1.741	9.96E-04	2.47E-02	1035	411
Left inferior parietal cortex	-0.131	0.058	[-0.245 - -0.017]	-0.933	2.65E-02	2.62E-01	1034	411
Left inferior temporal gyrus	-0.088	0.058	[-0.203 - 0.026]	-0.921	1.34E-01	5.66E-01	1034	411
Left isthmus cingulate cortex	-0.053	0.058	[-0.167 - 0.061]	-0.478	3.70E-01	7.83E-01	1034	410
Left lateral occipital cortex	-0.176	0.058	[-0.291 - -0.062]	-1.244	2.89E-03	5.91E-02	1035	410
Left lateral orbitofrontal cortex	-0.212	0.059	[-0.327 - -0.097]	-1.710	3.53E-04	1.14E-02	1030	409
Left lingual gyrus	-0.018	0.058	[-0.133 - 0.096]	-0.137	7.57E-01	9.44E-01	1035	411
Left medial orbitofrontal cortex	-0.107	0.058	[-0.221 - 0.008]	-1.029	7.12E-02	4.33E-01	1030	409
Left middle temporal gyrus	-0.149	0.058	[-0.263 - -0.034]	-1.144	1.20E-02	1.56E-01	1033	410
Left parahippocampal gyrus	-0.049	0.058	[-0.164 - 0.065]	-0.616	4.03E-01	8.00E-01	1035	408
Left paracentral lobule	-0.153	0.058	[-0.267 - -0.038]	-1.303	9.79E-03	1.37E-01	1032	410
Left pars opercularis of inferior frontal gyrus	-0.103	0.058	[-0.217 - 0.012]	-0.788	8.23E-02	4.68E-01	1034	411
Left pars orbitalis of inferior frontal gyrus	-0.207	0.058	[-0.321 - -0.092]	-1.880	4.74E-04	1.41E-02	1034	411
Left pars triangularis of inferior frontal gyrus	-0.093	0.058	[-0.207 - 0.022]	-0.773	1.17E-01	5.44E-01	1034	411
Left pericalcarine cortex	0.076	0.058	[-0.038 - 0.191]	0.889	1.98E-01	6.52E-01	1034	409
Left postcentral gyrus	-0.068	0.058	[-0.183 - 0.046]	-0.558	2.47E-01	6.91E-01	1034	409
Left posterior cingulate cortex	-0.171	0.058	[-0.285 - -0.057]	-1.262	3.82E-03	7.16E-02	1034	411
Left precentral gyrus	-0.171	0.058	[-0.286 - -0.057]	-1.379	3.79E-03	7.16E-02	1033	410
Left precuneus	-0.168	0.058	[-0.282 - -0.054]	-1.228	4.50E-03	8.14E-02	1034	411
Left rostral anterior cingulate cortex	-0.175	0.059	[-0.29 - -0.061]	-1.741	3.07E-03	6.14E-02	1034	409

Left rostral middle frontal gyrus	-0.264	0.059	[-0.379 - -0.149]	-2.019	8.83E-06	4.57E-04	1030	409
Left superior frontal gyrus	-0.165	0.058	[-0.279 - -0.05]	-1.216	5.46E-03	9.13E-02	1029	410
Left superior parietal cortex	-0.097	0.058	[-0.211 - 0.017]	-0.757	1.01E-01	5.11E-01	1033	411
Left superior temporal gyrus	-0.110	0.058	[-0.224 - 0.005]	-0.775	6.41E-02	4.11E-01	1035	409
Left supramarginal gyrus	-0.083	0.058	[-0.197 - 0.032]	-0.606	1.62E-01	6.03E-01	1034	410
Left frontal pole	-0.207	0.058	[-0.321 - -0.092]	-2.449	4.78E-04	1.41E-02	1035	411
Left temporal pole	0.025	0.058	[-0.09 - 0.139]	0.373	6.75E-01	9.20E-01	1035	411
Left transverse temporal gyrus	-0.096	0.058	[-0.211 - 0.018]	-1.027	1.03E-01	5.15E-01	1035	410
Left insula	-0.204	0.059	[-0.319 - -0.089]	-1.421	5.76E-04	1.65E-02	1031	409
Right banks of superior temporal sulcus	-0.082	0.058	[-0.197 - 0.033]	-0.681	1.67E-01	6.10E-01	1033	408
Right caudal anterior cingulate cortex	-0.087	0.058	[-0.201 - 0.028]	-0.909	1.43E-01	5.76E-01	1035	408
Right caudal middle frontal gyrus	-0.169	0.058	[-0.283 - -0.054]	-1.328	4.40E-03	8.03E-02	1035	409
Right cuneus	0.003	0.058	[-0.111 - 0.118]	0.029	9.58E-01	9.95E-01	1031	410
Right entorhinal cortex	-0.014	0.059	[-0.129 - 0.101]	-0.206	8.15E-01	9.66E-01	1030	403
Right fusiform gyrus	-0.166	0.058	[-0.28 - -0.051]	-1.510	5.11E-03	8.95E-02	1035	409
Right inferior parietal cortex	-0.121	0.058	[-0.235 - -0.006]	-0.894	4.12E-02	3.33E-01	1034	409
Right inferior temporal gyrus	-0.078	0.058	[-0.192 - 0.037]	-0.865	1.88E-01	6.42E-01	1035	410
Right isthmus cingulate cortex	-0.096	0.058	[-0.21 - 0.019]	-0.867	1.06E-01	5.22E-01	1033	409
Right lateral occipital cortex	-0.215	0.058	[-0.33 - -0.1]	-1.586	2.83E-04	9.39E-03	1035	410
Right lateral orbitofrontal cortex	-0.206	0.059	[-0.321 - -0.091]	-1.696	5.30E-04	1.54E-02	1031	408
Right lingual gyrus	-0.061	0.058	[-0.175 - 0.054]	-0.453	3.04E-01	7.37E-01	1035	408
Right medial orbitofrontal cortex	-0.145	0.059	[-0.26 - -0.03]	-1.370	1.46E-02	1.80E-01	1032	408
Right middle temporal gyrus	-0.097	0.058	[-0.212 - 0.017]	-0.892	1.00E-01	5.10E-01	1035	410
Right parahippocampal gyrus	0.034	0.058	[-0.08 - 0.149]	0.406	5.64E-01	8.70E-01	1035	409
Right paracentral lobule	-0.043	0.058	[-0.158 - 0.072]	-0.358	4.67E-01	8.33E-01	1032	408
Right pars opercularis of inferior frontal gyrus	-0.090	0.058	[-0.205 - 0.024]	-0.702	1.26E-01	5.53E-01	1034	410
Right pars orbitalis of inferior frontal gyrus	-0.203	0.058	[-0.317 - -0.088]	-1.812	6.15E-04	1.71E-02	1034	410
Right pars triangularis of inferior frontal gyrus	-0.109	0.058	[-0.223 - 0.006]	-0.903	6.57E-02	4.15E-01	1034	410
Right pericalcarine cortex	0.063	0.058	[-0.052 - 0.177]	0.725	2.88E-01	7.21E-01	1034	409
Right postcentral gyrus	0.002	0.058	[-0.112 - 0.117]	0.021	9.67E-01	9.96E-01	1034	409
Right posterior cingulate cortex	-0.165	0.058	[-0.28 - -0.05]	-1.272	5.32E-03	9.11E-02	1035	409

Right precentral gyrus	-0.106	0.058	[-0.22 - 0.009]	-0.857	7.40E-02	4.40E-01	1034	409
Right precuneus	-0.151	0.058	[-0.265 - -0.036]	-1.151	1.08E-02	1.46E-01	1035	409
Right rostral anterior cingulate cortex	-0.111	0.058	[-0.226 - 0.003]	-1.103	5.98E-02	3.95E-01	1034	410
Right rostral middle frontal gyrus	-0.211	0.059	[-0.325 - -0.096]	-1.636	3.85E-04	1.22E-02	1029	409
Right superior frontal gyrus	-0.149	0.059	[-0.263 - -0.034]	-1.095	1.20E-02	1.56E-01	1030	409
Right superior parietal cortex	-0.072	0.058	[-0.186 - 0.043]	-0.612	2.26E-01	6.79E-01	1033	410
Right superior temporal gyrus	-0.011	0.058	[-0.125 - 0.104]	-0.082	8.56E-01	9.78E-01	1034	410
Right supramarginal gyrus	0.000	0.058	[-0.114 - 0.114]	0.000	9.99E-01	1.00E+00	1031	410
Right frontal pole	-0.152	0.058	[-0.267 - -0.038]	-1.814	1.01E-02	1.40E-01	1032	410
Right temporal pole	0.009	0.058	[-0.105 - 0.123]	0.140	8.79E-01	9.82E-01	1031	410
Right transverse temporal gyrus	-0.084	0.058	[-0.199 - 0.03]	-0.910	1.55E-01	5.94E-01	1033	410
Right insula	-0.143	0.058	[-0.257 - -0.028]	-0.989	1.61E-02	1.87E-01	1032	409
Left hemisphere average thickness	-0.222	0.059	[-0.337 - -0.107]	-1.231	1.82E-04	6.49E-03	1033	408
Right hemisphere average thickness	-0.176	0.059	[-0.291 - -0.061]	-0.993	2.96E-03	5.98E-02	1034	408

Supplementary Table 35. Age-by-Diagnosis interaction on cortical surface area differences in adolescents <25 years old (all BD patients compared to controls)

	Cohen's d (Adols BD vs CTL AgeXDx)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.101	0.059	[-0.215 - 0.014]	-1.757	9.04E-02	4.87E-01	1035	407
Left caudal anterior cingulate cortex	-0.016	0.058	[-0.13 - 0.099]	-0.345	7.91E-01	9.58E-01	1034	409
Left caudal middle frontal gyrus	0.018	0.058	[-0.096 - 0.133]	0.317	7.58E-01	9.45E-01	1035	410
Left cuneus	0.093	0.058	[-0.021 - 0.208]	1.521	1.16E-01	5.43E-01	1035	409
Left entorhinal cortex	0.087	0.059	[-0.028 - 0.202]	1.878	1.45E-01	5.79E-01	1029	404
Left fusiform gyrus	0.118	0.058	[0.004 - 0.233]	1.751	4.59E-02	3.47E-01	1035	410
Left inferior parietal cortex	0.055	0.058	[-0.06 - 0.169]	0.818	3.56E-01	7.77E-01	1034	409
Left inferior temporal gyrus	-0.006	0.058	[-0.12 - 0.108]	-0.105	9.18E-01	9.83E-01	1034	410
Left isthmus cingulate cortex	0.075	0.058	[-0.039 - 0.19]	1.403	2.04E-01	6.58E-01	1035	409
Left lateral occipital cortex	0.131	0.058	[0.017 - 0.246]	1.819	2.66E-02	2.62E-01	1035	410
Left lateral orbitofrontal cortex	0.067	0.059	[-0.048 - 0.182]	0.882	2.59E-01	7.01E-01	1031	408
Left lingual gyrus	-0.046	0.058	[-0.16 - 0.069]	-0.691	4.40E-01	8.23E-01	1035	409
Left medial orbitofrontal cortex	-0.054	0.059	[-0.169 - 0.06]	-0.803	3.60E-01	7.78E-01	1030	408
Left middle temporal gyrus	-0.066	0.058	[-0.181 - 0.048]	-0.984	2.62E-01	7.03E-01	1033	409
Left parahippocampal gyrus	0.045	0.059	[-0.07 - 0.16]	0.721	4.47E-01	8.24E-01	1035	407
Left paracentral lobule	-0.014	0.058	[-0.128 - 0.101]	-0.209	8.14E-01	9.66E-01	1034	409
Left pars opercularis of inferior frontal gyrus	0.022	0.058	[-0.093 - 0.136]	0.355	7.15E-01	9.31E-01	1034	409
Left pars orbitalis of inferior frontal gyrus	-0.005	0.058	[-0.12 - 0.109]	-0.074	9.31E-01	9.89E-01	1035	410
Left pars triangularis of inferior frontal gyrus	0.073	0.058	[-0.041 - 0.188]	1.173	2.15E-01	6.69E-01	1033	409
Left pericalcarine cortex	0.025	0.058	[-0.09 - 0.139]	0.455	6.74E-01	9.20E-01	1034	409
Left postcentral gyrus	0.013	0.058	[-0.102 - 0.127]	0.157	8.33E-01	9.72E-01	1033	408
Left posterior cingulate cortex	-0.016	0.058	[-0.131 - 0.098]	-0.269	7.86E-01	9.57E-01	1035	409
Left precentral gyrus	0.077	0.058	[-0.037 - 0.192]	0.957	1.92E-01	6.44E-01	1034	409
Left precuneus	0.096	0.058	[-0.018 - 0.211]	1.271	1.03E-01	5.15E-01	1035	410
Left rostral anterior cingulate cortex	0.043	0.058	[-0.071 - 0.158]	0.907	4.65E-01	8.33E-01	1034	409

Left rostral middle frontal gyrus	0.132	0.059	[0.017 - 0.247]	1.947	2.59E-02	2.61E-01	1031	408
Left superior frontal gyrus	0.097	0.058	[-0.017 - 0.212]	1.237	1.00E-01	5.11E-01	1031	409
Left superior parietal cortex	0.134	0.058	[0.02 - 0.249]	1.708	2.37E-02	2.46E-01	1034	410
Left superior temporal gyrus	0.084	0.059	[-0.031 - 0.198]	1.055	1.59E-01	6.00E-01	1035	407
Left supramarginal gyrus	-0.030	0.058	[-0.144 - 0.085]	-0.457	6.14E-01	8.91E-01	1034	408
Left frontal pole	-0.065	0.058	[-0.18 - 0.049]	-1.157	2.71E-01	7.08E-01	1035	410
Left temporal pole	-0.007	0.058	[-0.121 - 0.108]	-0.103	9.11E-01	9.83E-01	1035	410
Left transverse temporal gyrus	0.066	0.058	[-0.049 - 0.18]	1.135	2.68E-01	7.06E-01	1034	410
Left insula	0.129	0.059	[0.014 - 0.244]	1.696	2.98E-02	2.75E-01	1032	408
Right banks of superior temporal sulcus	-0.066	0.059	[-0.181 - 0.049]	-1.235	2.65E-01	7.04E-01	1033	407
Right caudal anterior cingulate cortex	0.091	0.058	[-0.024 - 0.205]	1.995	1.26E-01	5.53E-01	1035	408
Right caudal middle frontal gyrus	0.030	0.058	[-0.085 - 0.144]	0.546	6.18E-01	8.93E-01	1035	408
Right cuneus	0.065	0.058	[-0.05 - 0.179]	0.994	2.74E-01	7.13E-01	1034	409
Right entorhinal cortex	0.065	0.059	[-0.051 - 0.18]	1.533	2.78E-01	7.13E-01	1030	402
Right fusiform gyrus	0.088	0.058	[-0.027 - 0.202]	1.280	1.40E-01	5.73E-01	1035	408
Right inferior parietal cortex	-0.017	0.058	[-0.131 - 0.098]	-0.251	7.78E-01	9.54E-01	1034	408
Right inferior temporal gyrus	-0.022	0.058	[-0.137 - 0.092]	-0.385	7.06E-01	9.26E-01	1035	409
Right isthmus cingulate cortex	0.055	0.058	[-0.06 - 0.169]	1.001	3.54E-01	7.77E-01	1033	409
Right lateral occipital cortex	0.164	0.059	[0.05 - 0.279]	2.318	5.60E-03	9.28E-02	1035	408
Right lateral orbitofrontal cortex	0.050	0.059	[-0.065 - 0.164]	0.675	4.03E-01	8.00E-01	1030	407
Right lingual gyrus	0.038	0.058	[-0.077 - 0.153]	0.565	5.21E-01	8.47E-01	1035	408
Right medial orbitofrontal cortex	0.080	0.059	[-0.035 - 0.194]	1.086	1.80E-01	6.28E-01	1031	407
Right middle temporal gyrus	-0.070	0.058	[-0.185 - 0.044]	-1.083	2.35E-01	6.88E-01	1035	409
Right parahippocampal gyrus	-0.006	0.058	[-0.121 - 0.108]	-0.099	9.13E-01	9.83E-01	1035	408
Right paracentral lobule	0.005	0.059	[-0.11 - 0.12]	0.078	9.34E-01	9.89E-01	1033	407
Right pars opercularis of inferior frontal gyrus	0.098	0.059	[-0.017 - 0.213]	1.671	9.91E-02	5.09E-01	1035	406
Right pars orbitalis of inferior frontal gyrus	0.088	0.058	[-0.026 - 0.203]	1.256	1.36E-01	5.68E-01	1035	409
Right pars triangularis of inferior frontal gyrus	0.102	0.059	[-0.013 - 0.216]	1.756	8.70E-02	4.78E-01	1035	407
Right pericalcarine cortex	0.016	0.058	[-0.099 - 0.13]	0.294	7.88E-01	9.58E-01	1035	409
Right postcentral gyrus	0.028	0.059	[-0.086 - 0.143]	0.367	6.32E-01	9.00E-01	1034	406
Right posterior cingulate cortex	-0.033	0.058	[-0.148 - 0.081]	-0.548	5.74E-01	8.75E-01	1035	409

Right precentral gyrus	0.085	0.058	[-0.03 - 0.199]	1.053	1.52E-01	5.89E-01	1034	409
Right precuneus	0.118	0.058	[0.004 - 0.233]	1.578	4.62E-02	3.48E-01	1035	408
Right rostral anterior cingulate cortex	0.083	0.058	[-0.031 - 0.198]	1.838	1.61E-01	6.01E-01	1035	408
Right rostral middle frontal gyrus	0.052	0.059	[-0.063 - 0.167]	0.784	3.81E-01	7.87E-01	1030	407
Right superior frontal gyrus	0.034	0.059	[-0.081 - 0.149]	0.450	5.66E-01	8.71E-01	1030	408
Right superior parietal cortex	0.055	0.058	[-0.059 - 0.17]	0.685	3.49E-01	7.73E-01	1032	409
Right superior temporal gyrus	0.031	0.058	[-0.084 - 0.145]	0.381	6.03E-01	8.86E-01	1033	409
Right supramarginal gyrus	0.034	0.058	[-0.08 - 0.149]	0.528	5.62E-01	8.69E-01	1031	408
Right frontal pole	0.022	0.058	[-0.093 - 0.136]	0.372	7.16E-01	9.31E-01	1035	409
Right temporal pole	0.063	0.058	[-0.052 - 0.177]	0.996	2.89E-01	7.22E-01	1031	409
Right transverse temporal gyrus	0.061	0.058	[-0.054 - 0.175]	1.106	3.06E-01	7.38E-01	1035	409
Right insula	0.083	0.059	[-0.031 - 0.198]	1.150	1.61E-01	6.01E-01	1032	408
Left hemisphere total surface area	0.096	0.059	[-0.019 - 0.212]	1.036	1.08E-01	5.26E-01	1033	398
Right hemisphere total surface area	0.085	0.059	[-0.031 - 0.201]	0.923	1.56E-01	5.95E-01	1033	398

Supplementary Table 36. Cortical thickness differences in adolescents <25 years old (BD type-1 patients compared to BD type-2)

	Cohen's d (Adols BD1 vs BD2)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.327	0.127	[0.077 - 0.577]	2.652	1.52E-02	1.83E-01	213	88
Left caudal anterior cingulate cortex	-0.228	0.127	[-0.476 - 0.02]	-2.405	8.84E-02	4.84E-01	213	89
Left caudal middle frontal gyrus	0.118	0.126	[-0.129 - 0.365]	0.920	3.76E-01	7.84E-01	214	89
Left cuneus	0.175	0.126	[-0.073 - 0.423]	1.644	1.90E-01	6.42E-01	214	89
Left entorhinal cortex	0.177	0.129	[-0.075 - 0.429]	2.416	1.93E-01	6.45E-01	213	85
Left fusiform gyrus	0.108	0.126	[-0.139 - 0.354]	0.964	4.17E-01	8.10E-01	214	90
Left inferior parietal cortex	0.121	0.126	[-0.125 - 0.368]	0.864	3.61E-01	7.78E-01	214	90
Left inferior temporal gyrus	-0.116	0.126	[-0.362 - 0.131]	-1.207	3.83E-01	7.87E-01	214	90
Left isthmus cingulate cortex	0.014	0.126	[-0.232 - 0.26]	0.126	9.16E-01	9.83E-01	213	90
Left lateral occipital cortex	0.118	0.126	[-0.129 - 0.364]	0.830	3.75E-01	7.84E-01	214	90
Left lateral orbitofrontal cortex	0.149	0.126	[-0.098 - 0.397]	1.204	2.64E-01	7.03E-01	213	89
Left lingual gyrus	0.140	0.126	[-0.106 - 0.387]	1.054	2.90E-01	7.22E-01	214	90
Left medial orbitofrontal cortex	0.227	0.127	[-0.021 - 0.475]	2.185	8.98E-02	4.87E-01	213	89
Left middle temporal gyrus	0.091	0.126	[-0.155 - 0.338]	0.702	4.92E-01	8.43E-01	213	90
Left parahippocampal gyrus	0.036	0.127	[-0.213 - 0.285]	0.449	7.88E-01	9.58E-01	214	87
Left paracentral lobule	-0.055	0.126	[-0.302 - 0.193]	-0.466	6.81E-01	9.23E-01	214	89
Left pars opercularis of inferior frontal gyrus	0.022	0.126	[-0.224 - 0.269]	0.171	8.66E-01	9.81E-01	214	90
Left pars orbitalis of inferior frontal gyrus	0.019	0.126	[-0.227 - 0.265]	0.174	8.86E-01	9.82E-01	214	90
Left pars triangularis of inferior frontal gyrus	0.094	0.126	[-0.153 - 0.34]	0.783	4.80E-01	8.39E-01	214	90
Left pericalcarine cortex	0.087	0.126	[-0.161 - 0.334]	1.012	5.16E-01	8.47E-01	213	89
Left postcentral gyrus	-0.072	0.126	[-0.319 - 0.176]	-0.586	5.90E-01	8.80E-01	213	89
Left posterior cingulate cortex	0.069	0.126	[-0.178 - 0.315]	0.507	6.05E-01	8.88E-01	214	90
Left precentral gyrus	0.098	0.126	[-0.149 - 0.345]	0.788	4.62E-01	8.33E-01	214	89
Left precuneus	0.022	0.126	[-0.224 - 0.268]	0.160	8.69E-01	9.81E-01	214	90
Left rostral anterior cingulate cortex	0.175	0.127	[-0.073 - 0.424]	1.739	1.91E-01	6.43E-01	214	88
Left rostral middle frontal gyrus	-0.033	0.126	[-0.279 - 0.214]	-0.251	8.05E-01	9.62E-01	212	90

Left superior frontal gyrus	0.142	0.126	[-0.104 - 0.389]	1.051	2.85E-01	7.18E-01	213	90
Left superior parietal cortex	-0.021	0.126	[-0.267 - 0.226]	-0.161	8.76E-01	9.82E-01	214	90
Left superior temporal gyrus	0.269	0.126	[0.021 - 0.516]	1.900	4.40E-02	3.41E-01	212	90
Left supramarginal gyrus	0.051	0.126	[-0.196 - 0.298]	0.375	7.01E-01	9.26E-01	214	89
Left frontal pole	0.290	0.126	[0.042 - 0.537]	3.435	2.97E-02	2.75E-01	214	90
Left temporal pole	0.048	0.126	[-0.198 - 0.294]	0.724	7.17E-01	9.31E-01	214	90
Left transverse temporal gyrus	0.108	0.126	[-0.139 - 0.355]	1.151	4.16E-01	8.10E-01	213	90
Left insula	0.259	0.127	[0.01 - 0.507]	1.799	5.34E-02	3.79E-01	213	89
Right banks of superior temporal sulcus	0.093	0.127	[-0.155 - 0.342]	0.778	4.85E-01	8.41E-01	214	88
Right caudal anterior cingulate cortex	-0.112	0.126	[-0.359 - 0.136]	-1.169	4.03E-01	8.00E-01	213	89
Right caudal middle frontal gyrus	0.078	0.126	[-0.169 - 0.324]	0.611	5.59E-01	8.67E-01	214	90
Right cuneus	0.104	0.126	[-0.143 - 0.35]	0.964	4.36E-01	8.23E-01	214	90
Right entorhinal cortex	-0.043	0.129	[-0.295 - 0.21]	-0.633	7.54E-01	9.44E-01	213	84
Right fusiform gyrus	0.135	0.126	[-0.111 - 0.382]	1.234	3.08E-01	7.39E-01	213	90
Right inferior parietal cortex	-0.147	0.126	[-0.393 - 0.1]	-1.084	2.70E-01	7.08E-01	213	90
Right inferior temporal gyrus	-0.130	0.126	[-0.377 - 0.116]	-1.445	3.28E-01	7.53E-01	214	90
Right isthmus cingulate cortex	-0.025	0.126	[-0.272 - 0.222]	-0.229	8.50E-01	9.77E-01	214	89
Right lateral occipital cortex	0.027	0.126	[-0.219 - 0.274]	0.202	8.36E-01	9.73E-01	214	90
Right lateral orbitofrontal cortex	0.105	0.126	[-0.143 - 0.352]	0.865	4.32E-01	8.22E-01	213	89
Right lingual gyrus	0.058	0.127	[-0.19 - 0.306]	0.433	6.64E-01	9.16E-01	214	88
Right medial orbitofrontal cortex	-0.023	0.126	[-0.27 - 0.224]	-0.218	8.63E-01	9.81E-01	213	89
Right middle temporal gyrus	0.062	0.126	[-0.184 - 0.308]	0.568	6.41E-01	9.06E-01	214	90
Right parahippocampal gyrus	0.090	0.126	[-0.157 - 0.338]	1.074	4.98E-01	8.43E-01	214	89
Right paracentral lobule	0.059	0.126	[-0.189 - 0.306]	0.489	6.59E-01	9.13E-01	213	89
Right pars opercularis of inferior frontal gyrus	-0.077	0.126	[-0.323 - 0.169]	-0.597	5.62E-01	8.69E-01	214	90
Right pars orbitalis of inferior frontal gyrus	0.129	0.126	[-0.117 - 0.376]	1.156	3.30E-01	7.55E-01	214	90
Right pars triangularis of inferior frontal gyrus	0.133	0.126	[-0.114 - 0.379]	1.101	3.17E-01	7.46E-01	214	90
Right pericalcarine cortex	-0.143	0.126	[-0.39 - 0.105]	-1.647	2.85E-01	7.18E-01	214	89
Right postcentral gyrus	-0.076	0.126	[-0.322 - 0.17]	-0.646	5.66E-01	8.71E-01	214	90
Right posterior cingulate cortex	0.036	0.126	[-0.212 - 0.283]	0.275	7.89E-01	9.58E-01	214	89
Right precentral gyrus	0.087	0.126	[-0.161 - 0.334]	0.703	5.15E-01	8.47E-01	214	89

Right precuneus	-0.056	0.126	[-0.302 - 0.191]	-0.424	6.75E-01	9.20E-01	214	90
Right rostral anterior cingulate cortex	-0.052	0.126	[-0.298 - 0.194]	-0.517	6.94E-01	9.26E-01	214	90
Right rostral middle frontal gyrus	0.092	0.126	[-0.154 - 0.339]	0.717	4.87E-01	8.42E-01	213	90
Right superior frontal gyrus	0.089	0.126	[-0.158 - 0.335]	0.655	5.03E-01	8.43E-01	213	90
Right superior parietal cortex	-0.059	0.126	[-0.305 - 0.187]	-0.505	6.57E-01	9.13E-01	214	90
Right superior temporal gyrus	0.104	0.126	[-0.143 - 0.35]	0.798	4.35E-01	8.23E-01	214	90
Right supramarginal gyrus	0.002	0.126	[-0.245 - 0.248]	0.013	9.90E-01	9.97E-01	214	90
Right frontal pole	0.059	0.126	[-0.187 - 0.306]	0.709	6.54E-01	9.13E-01	214	90
Right temporal pole	0.076	0.126	[-0.17 - 0.323]	1.187	5.65E-01	8.71E-01	214	90
Right transverse temporal gyrus	0.076	0.126	[-0.171 - 0.322]	0.819	5.68E-01	8.73E-01	214	90
Right insula	0.051	0.126	[-0.195 - 0.298]	0.354	7.01E-01	9.26E-01	213	90
Left hemisphere average thickness	0.104	0.126	[-0.143 - 0.351]	0.577	4.33E-01	8.23E-01	211	90
Right hemisphere average thickness	0.015	0.126	[-0.232 - 0.262]	0.084	9.11E-01	9.83E-01	211	90

Supplementary Table 37. Cortical surface area differences in adolescents <25 years old (BD type-1 patients compared to BD type-2)

	Cohen's d (Adols BD1 vs BD2)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.136	0.127	[-0.384 - 0.113]	-2.369	3.16E-01	7.45E-01	212	88
Left caudal anterior cingulate cortex	0.025	0.126	[-0.223 - 0.272]	0.544	8.54E-01	9.78E-01	213	89
Left caudal middle frontal gyrus	-0.104	0.126	[-0.351 - 0.142]	-1.808	4.36E-01	8.23E-01	213	90
Left cuneus	-0.021	0.126	[-0.269 - 0.226]	-0.350	8.73E-01	9.82E-01	213	89
Left entorhinal cortex	0.017	0.128	[-0.234 - 0.268]	0.370	9.00E-01	9.83E-01	211	86
Left fusiform gyrus	0.150	0.126	[-0.097 - 0.396]	2.218	2.64E-01	7.03E-01	213	90
Left inferior parietal cortex	0.005	0.126	[-0.242 - 0.253]	0.077	9.69E-01	9.97E-01	213	89
Left inferior temporal gyrus	-0.009	0.126	[-0.256 - 0.237]	-0.161	9.44E-01	9.93E-01	213	90
Left isthmus cingulate cortex	-0.032	0.126	[-0.278 - 0.215]	-0.590	8.13E-01	9.66E-01	212	90
Left lateral occipital cortex	-0.003	0.126	[-0.249 - 0.243]	-0.042	9.82E-01	9.97E-01	213	90
Left lateral orbitofrontal cortex	-0.005	0.126	[-0.253 - 0.242]	-0.071	9.68E-01	9.97E-01	212	89
Left lingual gyrus	0.273	0.127	[0.025 - 0.521]	4.126	4.29E-02	3.36E-01	213	89
Left medial orbitofrontal cortex	-0.082	0.126	[-0.329 - 0.166]	-1.209	5.43E-01	8.57E-01	212	89
Left middle temporal gyrus	-0.104	0.126	[-0.351 - 0.143]	-1.545	4.37E-01	8.23E-01	212	90
Left parahippocampal gyrus	-0.076	0.127	[-0.325 - 0.174]	-1.210	5.77E-01	8.75E-01	213	87
Left paracentral lobule	-0.046	0.126	[-0.293 - 0.201]	-0.689	7.32E-01	9.36E-01	213	89
Left pars opercularis of inferior frontal gyrus	0.176	0.126	[-0.071 - 0.422]	2.891	1.90E-01	6.43E-01	213	90
Left pars orbitalis of inferior frontal gyrus	-0.203	0.126	[-0.45 - 0.044]	-2.921	1.30E-01	5.63E-01	213	90
Left pars triangularis of inferior frontal gyrus	0.177	0.126	[-0.07 - 0.424]	2.831	1.86E-01	6.40E-01	212	90
Left pericalcarine cortex	0.062	0.126	[-0.185 - 0.308]	1.130	6.45E-01	9.08E-01	212	90
Left postcentral gyrus	-0.086	0.126	[-0.334 - 0.161]	-1.082	5.21E-01	8.47E-01	212	89
Left posterior cingulate cortex	-0.126	0.126	[-0.373 - 0.121]	-2.108	3.47E-01	7.73E-01	212	90
Left precentral gyrus	-0.260	0.127	[-0.508 - -0.012]	-3.218	5.40E-02	3.79E-01	213	89
Left precuneus	0.126	0.126	[-0.121 - 0.373]	1.661	3.47E-01	7.73E-01	213	90
Left rostral anterior cingulate cortex	-0.119	0.126	[-0.367 - 0.129]	-2.494	3.76E-01	7.84E-01	213	89
Left rostral middle frontal gyrus	0.023	0.126	[-0.224 - 0.269]	0.334	8.66E-01	9.81E-01	211	90

Left superior frontal gyrus	-0.165	0.126	[-0.412 - 0.082]	-2.094	2.19E-01	6.71E-01	212	90
Left superior parietal cortex	0.014	0.126	[-0.232 - 0.261]	0.180	9.16E-01	9.83E-01	213	90
Left superior temporal gyrus	0.059	0.126	[-0.188 - 0.307]	0.750	6.59E-01	9.13E-01	211	89
Left supramarginal gyrus	0.249	0.127	[0.001 - 0.498]	3.812	6.45E-02	4.12E-01	212	89
Left frontal pole	0.012	0.126	[-0.234 - 0.259]	0.216	9.28E-01	9.89E-01	213	90
Left temporal pole	0.166	0.126	[-0.081 - 0.412]	2.586	2.16E-01	6.70E-01	213	90
Left transverse temporal gyrus	0.014	0.126	[-0.232 - 0.26]	0.243	9.17E-01	9.83E-01	213	90
Left insula	-0.101	0.126	[-0.348 - 0.147]	-1.321	4.55E-01	8.31E-01	212	89
Right banks of superior temporal sulcus	0.156	0.127	[-0.093 - 0.405]	2.913	2.48E-01	6.91E-01	213	88
Right caudal anterior cingulate cortex	0.288	0.126	[0.04 - 0.535]	6.319	3.25E-02	2.93E-01	212	90
Right caudal middle frontal gyrus	-0.188	0.126	[-0.435 - 0.059]	-3.480	1.60E-01	6.01E-01	213	90
Right cuneus	0.056	0.126	[-0.191 - 0.302]	0.855	6.77E-01	9.20E-01	213	90
Right entorhinal cortex	0.107	0.129	[-0.146 - 0.36]	2.534	4.37E-01	8.23E-01	212	84
Right fusiform gyrus	0.153	0.126	[-0.094 - 0.4]	2.235	2.54E-01	6.95E-01	212	90
Right inferior parietal cortex	0.022	0.126	[-0.225 - 0.269]	0.332	8.69E-01	9.81E-01	212	90
Right inferior temporal gyrus	0.176	0.126	[-0.071 - 0.423]	3.038	1.88E-01	6.42E-01	213	90
Right isthmus cingulate cortex	0.116	0.126	[-0.13 - 0.363]	2.114	3.86E-01	7.87E-01	213	90
Right lateral occipital cortex	0.032	0.126	[-0.215 - 0.279]	0.451	8.12E-01	9.66E-01	213	89
Right lateral orbitofrontal cortex	-0.057	0.126	[-0.304 - 0.191]	-0.771	6.73E-01	9.20E-01	212	89
Right lingual gyrus	0.262	0.127	[0.013 - 0.51]	3.881	5.24E-02	3.78E-01	213	89
Right medial orbitofrontal cortex	0.080	0.126	[-0.168 - 0.327]	1.087	5.54E-01	8.63E-01	212	89
Right middle temporal gyrus	-0.040	0.126	[-0.286 - 0.207]	-0.611	7.67E-01	9.47E-01	213	90
Right parahippocampal gyrus	0.069	0.126	[-0.178 - 0.317]	1.070	6.06E-01	8.88E-01	213	89
Right paracentral lobule	-0.142	0.126	[-0.39 - 0.106]	-2.259	2.92E-01	7.22E-01	212	89
Right pars opercularis of inferior frontal gyrus	0.050	0.126	[-0.196 - 0.297]	0.860	7.07E-01	9.26E-01	211	90
Right pars orbitalis of inferior frontal gyrus	-0.123	0.126	[-0.369 - 0.124]	-1.742	3.60E-01	7.78E-01	213	90
Right pars triangularis of inferior frontal gyrus	-0.199	0.126	[-0.447 - 0.048]	-3.448	1.38E-01	5.70E-01	211	90
Right pericalcarine cortex	0.094	0.126	[-0.153 - 0.34]	1.722	4.85E-01	8.41E-01	213	90
Right postcentral gyrus	-0.018	0.126	[-0.266 - 0.229]	-0.236	8.92E-01	9.82E-01	212	89
Right posterior cingulate cortex	-0.016	0.126	[-0.262 - 0.231]	-0.262	9.05E-01	9.83E-01	213	90
Right precentral gyrus	-0.117	0.126	[-0.364 - 0.129]	-1.457	3.80E-01	7.87E-01	213	90

Right precuneus	0.006	0.126	[-0.24 - 0.253]	0.081	9.64E-01	9.96E-01	213	90
Right rostral anterior cingulate cortex	0.172	0.126	[-0.075 - 0.419]	3.800	2.00E-01	6.55E-01	212	90
Right rostral middle frontal gyrus	-0.080	0.126	[-0.328 - 0.167]	-1.208	5.51E-01	8.63E-01	212	89
Right superior frontal gyrus	-0.153	0.126	[-0.399 - 0.094]	-2.015	2.55E-01	6.97E-01	212	90
Right superior parietal cortex	0.206	0.126	[-0.041 - 0.453]	2.549	1.24E-01	5.53E-01	213	90
Right superior temporal gyrus	-0.085	0.126	[-0.331 - 0.162]	-1.050	5.26E-01	8.50E-01	213	90
Right supramarginal gyrus	-0.086	0.126	[-0.334 - 0.161]	-1.322	5.22E-01	8.47E-01	213	89
Right frontal pole	0.100	0.126	[-0.146 - 0.347]	1.733	4.53E-01	8.29E-01	213	90
Right temporal pole	0.054	0.126	[-0.192 - 0.301]	0.857	6.86E-01	9.25E-01	213	90
Right transverse temporal gyrus	-0.042	0.126	[-0.288 - 0.204]	-0.765	7.54E-01	9.44E-01	213	90
Right insula	-0.051	0.126	[-0.297 - 0.196]	-0.698	7.06E-01	9.26E-01	212	90
Left hemisphere total surface area	-0.003	0.127	[-0.252 - 0.245]	-0.037	9.80E-01	9.97E-01	201	90
Right hemisphere total surface area	0.014	0.127	[-0.234 - 0.263]	0.156	9.15E-01	9.83E-01	201	90

Supplementary Table 38. Illness duration on cortical thickness in adolescents <25 years old (all BD patients)

	Pearson's r (Adols DurOfIllness)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Patients
Left banks of superior temporal sulcus	0.117	0.071	[-0.021 - 0.256]	1.911	1.19E-01	5.46E-01	204
Left caudal anterior cingulate cortex	0.110	0.071	[-0.028 - 0.248]	2.330	1.44E-01	5.78E-01	204
Left caudal middle frontal gyrus	0.140	0.070	[0.003 - 0.279]	2.203	6.11E-02	3.98E-01	205
Left cuneus	0.224	0.070	[0.09 - 0.365]	4.308	2.55E-03	5.33E-02	205
Left entorhinal cortex	0.173	0.070	[0.037 - 0.313]	4.800	2.03E-02	2.21E-01	205
Left fusiform gyrus	0.128	0.070	[-0.009 - 0.266]	2.305	8.72E-02	4.78E-01	205
Left inferior parietal cortex	0.122	0.070	[-0.015 - 0.261]	1.754	1.02E-01	5.14E-01	205
Left inferior temporal gyrus	0.175	0.070	[0.039 - 0.314]	3.695	1.90E-02	2.12E-01	205
Left isthmus cingulate cortex	0.011	0.070	[-0.127 - 0.149]	0.192	8.87E-01	9.82E-01	205
Left lateral occipital cortex	0.139	0.071	[0.002 - 0.279]	1.987	6.26E-02	4.05E-01	204
Left lateral orbitofrontal cortex	0.126	0.071	[-0.012 - 0.265]	2.044	9.38E-02	4.95E-01	204
Left lingual gyrus	0.237	0.070	[0.103 - 0.379]	3.653	1.39E-03	3.28E-02	205
Left medial orbitofrontal cortex	0.081	0.071	[-0.057 - 0.22]	1.568	2.80E-01	7.14E-01	204
Left middle temporal gyrus	0.054	0.071	[-0.085 - 0.192]	0.827	4.76E-01	8.38E-01	204
Left parahippocampal gyrus	0.078	0.070	[-0.06 - 0.216]	1.943	3.00E-01	7.31E-01	205
Left paracentral lobule	0.124	0.070	[-0.013 - 0.263]	2.133	9.66E-02	5.04E-01	205
Left pars opercularis of inferior frontal gyrus	0.142	0.070	[0.006 - 0.281]	2.209	5.64E-02	3.88E-01	205
Left pars orbitalis of inferior frontal gyrus	0.151	0.070	[0.015 - 0.29]	2.782	4.27E-02	3.36E-01	205
Left pars triangularis of inferior frontal gyrus	0.130	0.070	[-0.007 - 0.268]	2.187	8.25E-02	4.68E-01	205
Left pericalcarine cortex	0.145	0.071	[0.008 - 0.284]	3.428	5.25E-02	3.78E-01	204
Left postcentral gyrus	0.166	0.071	[0.029 - 0.306]	2.744	2.63E-02	2.62E-01	204
Left posterior cingulate cortex	0.032	0.070	[-0.106 - 0.169]	0.465	6.75E-01	9.20E-01	205
Left precentral gyrus	0.108	0.070	[-0.029 - 0.246]	1.751	1.48E-01	5.85E-01	205
Left precuneus	0.138	0.070	[0.001 - 0.277]	2.038	6.45E-02	4.12E-01	205
Left rostral anterior cingulate cortex	0.111	0.070	[-0.026 - 0.25]	2.224	1.37E-01	5.69E-01	205
Left rostral middle frontal gyrus	0.084	0.071	[-0.054 - 0.222]	1.289	2.64E-01	7.03E-01	204
Left superior frontal gyrus	0.138	0.070	[0.001 - 0.276]	2.054	6.55E-02	4.14E-01	205

Left superior parietal cortex	0.185	0.070	[0.049 - 0.325]	2.932	1.30E-02	1.66E-01	205
Left superior temporal gyrus	0.189	0.071	[0.053 - 0.33]	2.728	1.13E-02	1.50E-01	203
Left supramarginal gyrus	0.117	0.070	[-0.02 - 0.255]	1.728	1.18E-01	5.44E-01	205
Left frontal pole	0.128	0.070	[-0.009 - 0.267]	3.068	8.60E-02	4.76E-01	205
Left temporal pole	0.175	0.070	[0.038 - 0.314]	5.336	1.91E-02	2.12E-01	205
Left transverse temporal gyrus	0.141	0.071	[0.003 - 0.28]	3.025	6.06E-02	3.96E-01	204
Left insula	0.194	0.071	[0.059 - 0.335]	2.757	9.15E-03	1.33E-01	204
Right banks of superior temporal sulcus	0.203	0.070	[0.068 - 0.344]	3.457	6.17E-03	9.96E-02	205
Right caudal anterior cingulate cortex	0.121	0.071	[-0.016 - 0.26]	2.563	1.05E-01	5.19E-01	204
Right caudal middle frontal gyrus	0.123	0.070	[-0.015 - 0.261]	1.944	1.01E-01	5.11E-01	205
Right cuneus	0.145	0.070	[0.008 - 0.284]	2.723	5.27E-02	3.78E-01	205
Right entorhinal cortex	0.090	0.071	[-0.048 - 0.228]	2.679	2.31E-01	6.85E-01	204
Right fusiform gyrus	0.196	0.071	[0.06 - 0.337]	3.642	8.52E-03	1.27E-01	204
Right inferior parietal cortex	0.080	0.071	[-0.058 - 0.219]	1.194	2.84E-01	7.18E-01	204
Right inferior temporal gyrus	0.153	0.070	[0.016 - 0.292]	3.441	4.03E-02	3.30E-01	205
Right isthmus cingulate cortex	0.157	0.070	[0.021 - 0.297]	2.891	3.49E-02	3.06E-01	205
Right lateral occipital cortex	0.133	0.070	[-0.005 - 0.271]	1.973	7.61E-02	4.45E-01	205
Right lateral orbitofrontal cortex	0.159	0.071	[0.022 - 0.298]	2.651	3.38E-02	3.01E-01	204
Right lingual gyrus	0.139	0.070	[0.002 - 0.278]	2.094	6.24E-02	4.05E-01	205
Right medial orbitofrontal cortex	0.077	0.071	[-0.062 - 0.215]	1.453	3.08E-01	7.39E-01	204
Right middle temporal gyrus	0.116	0.070	[-0.021 - 0.255]	2.143	1.21E-01	5.49E-01	205
Right parahippocampal gyrus	0.042	0.070	[-0.096 - 0.18]	0.996	5.77E-01	8.75E-01	205
Right paracentral lobule	0.066	0.071	[-0.072 - 0.205]	1.103	3.79E-01	7.85E-01	204
Right pars opercularis of inferior frontal gyrus	0.118	0.070	[-0.02 - 0.256]	1.836	1.16E-01	5.43E-01	205
Right pars orbitalis of inferior frontal gyrus	0.144	0.070	[0.007 - 0.283]	2.600	5.38E-02	3.79E-01	205
Right pars triangularis of inferior frontal gyrus	0.035	0.070	[-0.103 - 0.173]	0.575	6.44E-01	9.08E-01	205
Right pericalcarine cortex	0.043	0.070	[-0.095 - 0.181]	0.996	5.66E-01	8.71E-01	205
Right postcentral gyrus	0.198	0.070	[0.063 - 0.338]	3.428	7.74E-03	1.19E-01	205
Right posterior cingulate cortex	0.062	0.070	[-0.075 - 0.2]	0.964	4.05E-01	8.01E-01	205
Right precentral gyrus	0.091	0.070	[-0.047 - 0.229]	1.478	2.25E-01	6.79E-01	205
Right precuneus	0.108	0.070	[-0.03 - 0.246]	1.653	1.50E-01	5.88E-01	205

Right rostral anterior cingulate cortex	0.139	0.070	[0.002 - 0.278]	2.787	6.24E-02	4.05E-01	205
Right rostral middle frontal gyrus	0.068	0.070	[-0.069 - 0.206]	1.064	3.62E-01	7.78E-01	205
Right superior frontal gyrus	0.103	0.070	[-0.035 - 0.241]	1.518	1.71E-01	6.14E-01	205
Right superior parietal cortex	0.129	0.070	[-0.008 - 0.268]	2.229	8.42E-02	4.73E-01	205
Right superior temporal gyrus	0.171	0.070	[0.034 - 0.31]	2.663	2.20E-02	2.33E-01	205
Right supramarginal gyrus	0.194	0.070	[0.058 - 0.334]	2.949	9.25E-03	1.33E-01	205
Right frontal pole	0.045	0.070	[-0.093 - 0.182]	1.063	5.53E-01	8.63E-01	205
Right temporal pole	0.166	0.070	[0.029 - 0.305]	5.221	2.62E-02	2.62E-01	205
Right transverse temporal gyrus	0.115	0.070	[-0.023 - 0.253]	2.499	1.25E-01	5.53E-01	205
Right insula	0.110	0.071	[-0.028 - 0.249]	1.539	1.42E-01	5.75E-01	204
Left hemisphere average thickness	0.187	0.071	[0.051 - 0.328]	2.114	1.21E-02	1.56E-01	203
Right hemisphere average thickness	0.175	0.071	[0.038 - 0.315]	2.001	1.93E-02	2.14E-01	203

Supplementary Table 39. Illness duration on cortical surface area in adolescents <25 years old (all BD patients)

	Pearson's r (Adols DurOfIllness)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Patients
Left banks of superior temporal sulcus	-0.063	0.071	[-0.202 - 0.075]	-2.223	3.99E-01	7.98E-01	203
Left caudal anterior cingulate cortex	0.002	0.071	[-0.136 - 0.14]	0.082	9.80E-01	9.97E-01	204
Left caudal middle frontal gyrus	-0.091	0.071	[-0.229 - 0.047]	-3.154	2.27E-01	6.79E-01	204
Left cuneus	-0.052	0.071	[-0.19 - 0.086]	-1.703	4.87E-01	8.42E-01	204
Left entorhinal cortex	0.064	0.071	[-0.074 - 0.203]	2.788	3.90E-01	7.93E-01	204
Left fusiform gyrus	0.010	0.071	[-0.129 - 0.148]	0.287	8.97E-01	9.83E-01	204
Left inferior parietal cortex	-0.079	0.071	[-0.217 - 0.06]	-2.359	2.94E-01	7.24E-01	204
Left inferior temporal gyrus	-0.003	0.071	[-0.142 - 0.135]	-0.114	9.65E-01	9.96E-01	204
Left isthmus cingulate cortex	-0.055	0.071	[-0.193 - 0.084]	-2.037	4.67E-01	8.33E-01	204
Left lateral occipital cortex	0.095	0.071	[-0.043 - 0.234]	2.650	2.03E-01	6.58E-01	204
Left lateral orbitofrontal cortex	0.026	0.071	[-0.112 - 0.165]	0.691	7.28E-01	9.34E-01	203
Left lingual gyrus	0.019	0.071	[-0.12 - 0.157]	0.560	8.05E-01	9.62E-01	204
Left medial orbitofrontal cortex	-0.094	0.071	[-0.233 - 0.044]	-2.804	2.09E-01	6.62E-01	203
Left middle temporal gyrus	-0.089	0.071	[-0.228 - 0.05]	-2.644	2.37E-01	6.88E-01	203
Left parahippocampal gyrus	-0.031	0.071	[-0.169 - 0.108]	-0.979	6.84E-01	9.24E-01	204
Left paracentral lobule	-0.088	0.071	[-0.226 - 0.05]	-2.640	2.42E-01	6.90E-01	204
Left pars opercularis of inferior frontal gyrus	0.033	0.071	[-0.105 - 0.172]	1.094	6.59E-01	9.13E-01	203
Left pars orbitalis of inferior frontal gyrus	0.106	0.071	[-0.032 - 0.245]	3.067	1.57E-01	5.97E-01	204
Left pars triangularis of inferior frontal gyrus	-0.002	0.071	[-0.14 - 0.136]	-0.066	9.78E-01	9.97E-01	204
Left pericalcarine cortex	0.036	0.071	[-0.102 - 0.175]	1.321	6.31E-01	9.00E-01	203
Left postcentral gyrus	0.017	0.071	[-0.121 - 0.155]	0.424	8.22E-01	9.69E-01	204
Left posterior cingulate cortex	-0.145	0.071	[-0.285 - -0.007]	-4.903	5.29E-02	3.78E-01	203
Left precentral gyrus	-0.068	0.071	[-0.207 - 0.07]	-1.697	3.62E-01	7.78E-01	204
Left precuneus	-0.061	0.071	[-0.199 - 0.077]	-1.613	4.15E-01	8.09E-01	204
Left rostral anterior cingulate cortex	0.072	0.071	[-0.067 - 0.21]	3.007	3.40E-01	7.65E-01	204
Left rostral middle frontal gyrus	0.013	0.071	[-0.126 - 0.151]	0.378	8.64E-01	9.81E-01	203
Left superior frontal gyrus	-0.055	0.071	[-0.193 - 0.083]	-1.394	4.65E-01	8.33E-01	204

Left superior parietal cortex	-0.022	0.071	[-0.161 - 0.116]	-0.572	7.65E-01	9.46E-01	204
Left superior temporal gyrus	0.050	0.071	[-0.089 - 0.189]	1.254	5.11E-01	8.44E-01	202
Left supramarginal gyrus	0.040	0.071	[-0.098 - 0.178]	1.226	5.93E-01	8.82E-01	204
Left frontal pole	0.030	0.071	[-0.108 - 0.168]	1.073	6.87E-01	9.25E-01	204
Left temporal pole	0.148	0.071	[0.011 - 0.287]	4.663	4.79E-02	3.57E-01	204
Left transverse temporal gyrus	-0.033	0.071	[-0.171 - 0.105]	-1.146	6.59E-01	9.13E-01	204
Left insula	-0.003	0.071	[-0.141 - 0.136]	-0.072	9.71E-01	9.97E-01	204
Right banks of superior temporal sulcus	0.060	0.071	[-0.078 - 0.198]	2.246	4.23E-01	8.15E-01	204
Right caudal anterior cingulate cortex	0.016	0.071	[-0.122 - 0.154]	0.699	8.32E-01	9.72E-01	204
Right caudal middle frontal gyrus	-0.095	0.071	[-0.234 - 0.043]	-3.543	2.03E-01	6.58E-01	204
Right cuneus	0.034	0.071	[-0.104 - 0.172]	1.049	6.49E-01	9.11E-01	204
Right entorhinal cortex	0.059	0.071	[-0.079 - 0.198]	2.823	4.29E-01	8.21E-01	203
Right fusiform gyrus	0.073	0.071	[-0.065 - 0.212]	2.142	3.31E-01	7.56E-01	203
Right inferior parietal cortex	-0.045	0.071	[-0.183 - 0.094]	-1.350	5.52E-01	8.63E-01	203
Right inferior temporal gyrus	0.055	0.071	[-0.083 - 0.193]	1.896	4.64E-01	8.33E-01	204
Right isthmus cingulate cortex	-0.113	0.071	[-0.252 - 0.025]	-4.142	1.31E-01	5.63E-01	204
Right lateral occipital cortex	-0.031	0.071	[-0.17 - 0.107]	-0.888	6.75E-01	9.20E-01	204
Right lateral orbitofrontal cortex	0.012	0.071	[-0.127 - 0.15]	0.319	8.76E-01	9.82E-01	203
Right lingual gyrus	0.051	0.071	[-0.087 - 0.189]	1.518	4.96E-01	8.43E-01	204
Right medial orbitofrontal cortex	-0.003	0.071	[-0.142 - 0.135]	-0.090	9.65E-01	9.96E-01	203
Right middle temporal gyrus	0.052	0.071	[-0.087 - 0.19]	1.591	4.92E-01	8.43E-01	204
Right parahippocampal gyrus	0.064	0.071	[-0.074 - 0.202]	1.978	3.93E-01	7.95E-01	204
Right paracentral lobule	-0.010	0.071	[-0.148 - 0.129]	-0.310	8.97E-01	9.83E-01	203
Right pars opercularis of inferior frontal gyrus	0.014	0.071	[-0.124 - 0.153]	0.484	8.50E-01	9.77E-01	203
Right pars orbitalis of inferior frontal gyrus	-0.070	0.071	[-0.209 - 0.068]	-2.005	3.48E-01	7.73E-01	204
Right pars triangularis of inferior frontal gyrus	-0.105	0.071	[-0.244 - 0.033]	-3.658	1.61E-01	6.01E-01	203
Right pericalcarine cortex	0.087	0.071	[-0.051 - 0.226]	3.222	2.44E-01	6.91E-01	204
Right postcentral gyrus	-0.037	0.071	[-0.176 - 0.102]	-0.955	6.23E-01	8.95E-01	203
Right posterior cingulate cortex	-0.054	0.071	[-0.192 - 0.084]	-1.774	4.73E-01	8.37E-01	204
Right precentral gyrus	-0.052	0.071	[-0.191 - 0.086]	-1.302	4.85E-01	8.41E-01	204
Right precuneus	-0.074	0.071	[-0.213 - 0.064]	-1.993	3.20E-01	7.46E-01	204

Right rostral anterior cingulate cortex	0.093	0.071	[-0.045 - 0.232]	4.147	2.12E-01	6.65E-01	204
Right rostral middle frontal gyrus	0.021	0.071	[-0.117 - 0.159]	0.626	7.82E-01	9.55E-01	204
Right superior frontal gyrus	-0.030	0.071	[-0.168 - 0.108]	-0.799	6.87E-01	9.25E-01	204
Right superior parietal cortex	0.055	0.071	[-0.083 - 0.194]	1.371	4.60E-01	8.33E-01	204
Right superior temporal gyrus	0.019	0.071	[-0.119 - 0.158]	0.477	7.97E-01	9.61E-01	204
Right supramarginal gyrus	0.059	0.071	[-0.079 - 0.197]	1.817	4.31E-01	8.22E-01	204
Right frontal pole	-0.090	0.071	[-0.228 - 0.048]	-3.099	2.32E-01	6.85E-01	204
Right temporal pole	0.082	0.071	[-0.056 - 0.221]	2.620	2.72E-01	7.09E-01	204
Right transverse temporal gyrus	-0.058	0.071	[-0.197 - 0.08]	-2.127	4.37E-01	8.23E-01	204
Right insula	-0.022	0.071	[-0.161 - 0.116]	-0.620	7.66E-01	9.46E-01	203
Left hemisphere total surface area	0.008	0.073	[-0.134 - 0.15]	0.176	9.16E-01	9.83E-01	193
Right hemisphere total surface area	0.036	0.073	[-0.106 - 0.179]	0.791	6.37E-01	9.04E-01	193

Supplementary Table 40. Effects of lithium on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD Li FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.135	0.132	[-0.125 - 0.394]	1.092	3.43E-01	7.70E-01	250	74
Left caudal anterior cingulate cortex	0.212	0.131	[-0.045 - 0.469]	2.239	1.32E-01	5.64E-01	249	76
Left caudal middle frontal gyrus	0.182	0.131	[-0.075 - 0.439]	1.420	1.96E-01	6.46E-01	250	76
Left cuneus	0.591	0.133	[0.33 - 0.852]	5.550	3.42E-05	1.45E-03	250	76
Left entorhinal cortex	0.077	0.133	[-0.184 - 0.338]	1.049	5.91E-01	8.80E-01	248	73
Left fusiform gyrus	0.178	0.131	[-0.079 - 0.435]	1.591	2.06E-01	6.59E-01	251	76
Left inferior parietal cortex	0.234	0.131	[-0.023 - 0.491]	1.664	9.65E-02	5.04E-01	251	76
Left inferior temporal gyrus	0.233	0.131	[-0.024 - 0.49]	2.426	9.79E-02	5.05E-01	251	76
Left isthmus cingulate cortex	-0.035	0.132	[-0.293 - 0.223]	-0.315	8.04E-01	9.62E-01	251	75
Left lateral occipital cortex	0.167	0.132	[-0.091 - 0.425]	1.180	2.37E-01	6.88E-01	251	75
Left lateral orbitofrontal cortex	0.185	0.132	[-0.074 - 0.443]	1.491	1.91E-01	6.43E-01	250	75
Left lingual gyrus	0.423	0.132	[0.164 - 0.681]	3.171	2.82E-03	5.82E-02	251	76
Left medial orbitofrontal cortex	0.080	0.132	[-0.178 - 0.338]	0.769	5.72E-01	8.74E-01	250	75
Left middle temporal gyrus	0.238	0.132	[-0.021 - 0.497]	1.831	9.26E-02	4.91E-01	251	75
Left parahippocampal gyrus	0.080	0.132	[-0.178 - 0.339]	1.002	5.69E-01	8.74E-01	249	75
Left paracentral lobule	0.375	0.132	[0.116 - 0.633]	3.194	8.00E-03	1.21E-01	250	76
Left pars opercularis of inferior frontal gyrus	0.056	0.131	[-0.201 - 0.312]	0.428	6.91E-01	9.26E-01	251	76
Left pars orbitalis of inferior frontal gyrus	0.243	0.131	[-0.015 - 0.5]	2.205	8.49E-02	4.73E-01	251	76
Left pars triangularis of inferior frontal gyrus	0.072	0.131	[-0.184 - 0.329]	0.603	6.07E-01	8.88E-01	251	76
Left pericalcarine cortex	0.532	0.133	[0.27 - 0.793]	6.210	2.00E-04	6.95E-03	250	75
Left postcentral gyrus	0.226	0.131	[-0.032 - 0.483]	1.840	1.08E-01	5.27E-01	249	76
Left posterior cingulate cortex	-0.093	0.131	[-0.349 - 0.164]	-0.684	5.10E-01	8.43E-01	251	76
Left precentral gyrus	0.380	0.132	[0.122 - 0.639]	3.059	7.15E-03	1.12E-01	250	76
Left precuneus	0.104	0.131	[-0.153 - 0.361]	0.761	4.59E-01	8.33E-01	251	76
Left rostral anterior cingulate cortex	-0.082	0.131	[-0.339 - 0.175]	-0.812	5.61E-01	8.68E-01	249	76

Left rostral middle frontal gyrus	0.186	0.131	[-0.071 - 0.444]	1.425	1.85E-01	6.38E-01	249	76
Left superior frontal gyrus	0.287	0.131	[0.029 - 0.545]	2.121	4.18E-02	3.34E-01	250	76
Left superior parietal cortex	0.250	0.131	[-0.007 - 0.508]	1.952	7.53E-02	4.43E-01	251	76
Left superior temporal gyrus	0.213	0.133	[-0.046 - 0.473]	1.509	1.33E-01	5.66E-01	251	74
Left supramarginal gyrus	0.209	0.131	[-0.048 - 0.466]	1.534	1.37E-01	5.70E-01	250	76
Left frontal pole	0.166	0.131	[-0.091 - 0.422]	1.961	2.39E-01	6.89E-01	251	76
Left temporal pole	0.215	0.131	[-0.042 - 0.473]	3.242	1.26E-01	5.53E-01	251	76
Left transverse temporal gyrus	0.258	0.131	[0 - 0.515]	2.747	6.72E-02	4.19E-01	250	76
Left insula	0.038	0.131	[-0.219 - 0.295]	0.266	7.86E-01	9.57E-01	249	76
Right banks of superior temporal sulcus	0.055	0.132	[-0.203 - 0.313]	0.456	6.98E-01	9.26E-01	250	75
Right caudal anterior cingulate cortex	0.234	0.131	[-0.024 - 0.491]	2.447	9.74E-02	5.04E-01	249	76
Right caudal middle frontal gyrus	0.193	0.131	[-0.064 - 0.451]	1.523	1.69E-01	6.12E-01	250	76
Right cuneus	0.463	0.132	[0.204 - 0.722]	4.310	1.09E-03	2.64E-02	251	76
Right entorhinal cortex	-0.062	0.133	[-0.322 - 0.198]	-0.922	6.63E-01	9.15E-01	246	74
Right fusiform gyrus	0.021	0.131	[-0.236 - 0.277]	0.187	8.84E-01	9.82E-01	250	76
Right inferior parietal cortex	0.309	0.132	[0.051 - 0.567]	2.287	2.82E-02	2.69E-01	250	76
Right inferior temporal gyrus	-0.042	0.131	[-0.299 - 0.215]	-0.466	7.65E-01	9.46E-01	251	76
Right isthmus cingulate cortex	0.066	0.131	[-0.19 - 0.323]	0.601	6.37E-01	9.04E-01	250	76
Right lateral occipital cortex	0.294	0.131	[0.036 - 0.551]	2.168	3.70E-02	3.17E-01	251	76
Right lateral orbitofrontal cortex	0.291	0.132	[0.032 - 0.55]	2.402	3.99E-02	3.29E-01	250	75
Right lingual gyrus	0.469	0.133	[0.209 - 0.73]	3.495	9.99E-04	2.47E-02	250	75
Right medial orbitofrontal cortex	0.007	0.132	[-0.252 - 0.265]	0.062	9.63E-01	9.96E-01	250	75
Right middle temporal gyrus	-0.005	0.131	[-0.262 - 0.252]	-0.046	9.72E-01	9.97E-01	251	76
Right parahippocampal gyrus	0.041	0.131	[-0.216 - 0.298]	0.486	7.71E-01	9.49E-01	250	76
Right paracentral lobule	0.419	0.132	[0.16 - 0.678]	3.486	3.03E-03	6.08E-02	249	76
Right pars opercularis of inferior frontal gyrus	0.100	0.131	[-0.157 - 0.357]	0.775	4.77E-01	8.38E-01	251	76
Right pars orbitalis of inferior frontal gyrus	0.372	0.132	[0.113 - 0.63]	3.319	8.52E-03	1.27E-01	251	76
Right pars triangularis of inferior frontal gyrus	0.153	0.131	[-0.104 - 0.41]	1.272	2.75E-01	7.13E-01	251	76
Right pericalcarine cortex	0.531	0.133	[0.27 - 0.792]	6.131	2.00E-04	6.95E-03	251	75
Right postcentral gyrus	0.291	0.131	[0.033 - 0.548]	2.467	3.92E-02	3.28E-01	251	76
Right posterior cingulate cortex	-0.168	0.132	[-0.427 - 0.09]	-1.296	2.34E-01	6.87E-01	251	75

Right precentral gyrus	0.387	0.132	[0.128 - 0.645]	3.135	6.23E-03	1.00E-01	250	76
Right precuneus	0.124	0.131	[-0.133 - 0.381]	0.946	3.78E-01	7.84E-01	250	76
Right rostral anterior cingulate cortex	-0.087	0.131	[-0.344 - 0.17]	-0.864	5.35E-01	8.53E-01	251	76
Right rostral middle frontal gyrus	0.243	0.131	[-0.014 - 0.501]	1.890	8.40E-02	4.73E-01	250	76
Right superior frontal gyrus	0.219	0.131	[-0.038 - 0.476]	1.613	1.20E-01	5.48E-01	250	76
Right superior parietal cortex	0.292	0.131	[0.034 - 0.55]	2.500	3.82E-02	3.25E-01	251	76
Right superior temporal gyrus	0.024	0.131	[-0.232 - 0.281]	0.188	8.62E-01	9.81E-01	251	76
Right supramarginal gyrus	0.238	0.131	[-0.019 - 0.495]	1.778	9.10E-02	4.87E-01	251	76
Right frontal pole	0.073	0.131	[-0.184 - 0.33]	0.871	6.03E-01	8.86E-01	251	76
Right temporal pole	-0.168	0.131	[-0.425 - 0.089]	-2.614	2.31E-01	6.85E-01	251	76
Right transverse temporal gyrus	0.208	0.131	[-0.049 - 0.465]	2.251	1.39E-01	5.71E-01	251	76
Right insula	-0.049	0.131	[-0.306 - 0.208]	-0.339	7.28E-01	9.34E-01	250	76
Left hemisphere average thickness	0.300	0.133	[0.04 - 0.56]	1.663	3.47E-02	3.06E-01	250	74
Right hemisphere average thickness	0.298	0.133	[0.038 - 0.559]	1.682	3.57E-02	3.10E-01	250	74

Supplementary Table 41. Effects of lithium on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD Li FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.109	0.132	[-0.369 - 0.151]	-1.905	4.46E-01	8.24E-01	249	74
Left caudal anterior cingulate cortex	-0.078	0.131	[-0.335 - 0.179]	-1.713	5.83E-01	8.78E-01	249	76
Left caudal middle frontal gyrus	-0.028	0.131	[-0.285 - 0.229]	-0.484	8.44E-01	9.75E-01	250	76
Left cuneus	-0.150	0.131	[-0.407 - 0.107]	-2.446	2.90E-01	7.22E-01	249	76
Left entorhinal cortex	-0.195	0.133	[-0.456 - 0.067]	-4.203	1.77E-01	6.26E-01	247	73
Left fusiform gyrus	0.006	0.131	[-0.251 - 0.263]	0.088	9.66E-01	9.96E-01	250	76
Left inferior parietal cortex	-0.241	0.131	[-0.498 - 0.017]	-3.604	8.97E-02	4.87E-01	249	76
Left inferior temporal gyrus	-0.217	0.131	[-0.474 - 0.04]	-3.738	1.26E-01	5.53E-01	250	76
Left isthmus cingulate cortex	-0.181	0.132	[-0.439 - 0.078]	-3.367	2.04E-01	6.58E-01	250	75
Left lateral occipital cortex	0.059	0.131	[-0.197 - 0.316]	0.823	6.74E-01	9.20E-01	250	76
Left lateral orbitofrontal cortex	-0.126	0.132	[-0.385 - 0.132]	-1.662	3.75E-01	7.84E-01	249	75
Left lingual gyrus	-0.044	0.131	[-0.301 - 0.213]	-0.664	7.56E-01	9.44E-01	249	76
Left medial orbitofrontal cortex	-0.077	0.132	[-0.335 - 0.182]	-1.134	5.90E-01	8.80E-01	249	75
Left middle temporal gyrus	-0.271	0.132	[-0.529 - -0.012]	-4.011	5.80E-02	3.92E-01	250	75
Left parahippocampal gyrus	-0.127	0.132	[-0.385 - 0.131]	-2.032	3.73E-01	7.84E-01	248	75
Left paracentral lobule	-0.270	0.131	[-0.528 - -0.012]	-4.048	5.74E-02	3.91E-01	249	76
Left pars opercularis of inferior frontal gyrus	-0.117	0.132	[-0.375 - 0.141]	-1.931	4.10E-01	8.04E-01	250	75
Left pars orbitalis of inferior frontal gyrus	0.031	0.131	[-0.225 - 0.288]	0.452	8.25E-01	9.70E-01	250	76
Left pars triangularis of inferior frontal gyrus	-0.299	0.132	[-0.559 - -0.04]	-4.784	3.60E-02	3.11E-01	250	75
Left pericalcarine cortex	-0.011	0.131	[-0.268 - 0.246]	-0.197	9.39E-01	9.92E-01	249	76
Left postcentral gyrus	-0.118	0.132	[-0.376 - 0.141]	-1.473	4.09E-01	8.04E-01	249	75
Left posterior cingulate cortex	-0.075	0.131	[-0.332 - 0.181]	-1.263	5.94E-01	8.82E-01	249	76
Left precentral gyrus	-0.023	0.131	[-0.28 - 0.234]	-0.283	8.72E-01	9.82E-01	249	76
Left precuneus	-0.270	0.131	[-0.527 - -0.012]	-3.554	5.75E-02	3.91E-01	250	76
Left rostral anterior cingulate cortex	-0.212	0.131	[-0.47 - 0.045]	-4.449	1.34E-01	5.66E-01	249	76

Left rostral middle frontal gyrus	-0.107	0.131	[-0.364 - 0.15]	-1.578	4.49E-01	8.26E-01	248	76
Left superior frontal gyrus	-0.031	0.131	[-0.288 - 0.225]	-0.399	8.24E-01	9.70E-01	249	76
Left superior parietal cortex	-0.198	0.131	[-0.456 - 0.059]	-2.529	1.62E-01	6.01E-01	250	76
Left superior temporal gyrus	-0.088	0.132	[-0.348 - 0.171]	-1.116	5.37E-01	8.53E-01	249	74
Left supramarginal gyrus	-0.045	0.132	[-0.303 - 0.213]	-0.685	7.53E-01	9.44E-01	249	75
Left frontal pole	-0.203	0.131	[-0.46 - 0.055]	-3.599	1.53E-01	5.91E-01	250	76
Left temporal pole	-0.020	0.131	[-0.277 - 0.236]	-0.318	8.86E-01	9.82E-01	250	76
Left transverse temporal gyrus	-0.229	0.131	[-0.486 - 0.028]	-3.965	1.06E-01	5.22E-01	250	76
Left insula	-0.224	0.132	[-0.482 - 0.035]	-2.941	1.17E-01	5.44E-01	249	75
Right banks of superior temporal sulcus	-0.002	0.132	[-0.26 - 0.256]	-0.043	9.87E-01	9.97E-01	249	75
Right caudal anterior cingulate cortex	-0.091	0.131	[-0.348 - 0.166]	-2.000	5.20E-01	8.47E-01	249	76
Right caudal middle frontal gyrus	0.041	0.131	[-0.216 - 0.298]	0.756	7.73E-01	9.50E-01	249	76
Right cuneus	-0.046	0.131	[-0.303 - 0.211]	-0.708	7.44E-01	9.39E-01	250	76
Right entorhinal cortex	-0.096	0.133	[-0.356 - 0.165]	-2.264	5.06E-01	8.43E-01	245	74
Right fusiform gyrus	-0.212	0.131	[-0.47 - 0.045]	-3.107	1.34E-01	5.66E-01	249	76
Right inferior parietal cortex	-0.200	0.131	[-0.457 - 0.057]	-3.014	1.57E-01	5.97E-01	249	76
Right inferior temporal gyrus	-0.097	0.131	[-0.354 - 0.16]	-1.666	4.95E-01	8.43E-01	250	76
Right isthmus cingulate cortex	-0.094	0.131	[-0.351 - 0.163]	-1.707	5.08E-01	8.43E-01	250	76
Right lateral occipital cortex	-0.059	0.131	[-0.316 - 0.198]	-0.835	6.76E-01	9.20E-01	249	76
Right lateral orbitofrontal cortex	-0.199	0.132	[-0.458 - 0.06]	-2.705	1.63E-01	6.03E-01	249	75
Right lingual gyrus	-0.012	0.131	[-0.269 - 0.245]	-0.180	9.32E-01	9.89E-01	249	76
Right medial orbitofrontal cortex	-0.026	0.132	[-0.284 - 0.233]	-0.348	8.58E-01	9.79E-01	249	75
Right middle temporal gyrus	-0.211	0.131	[-0.469 - 0.046]	-3.256	1.36E-01	5.69E-01	250	76
Right parahippocampal gyrus	-0.166	0.131	[-0.423 - 0.092]	-2.553	2.43E-01	6.91E-01	249	76
Right paracentral lobule	-0.179	0.131	[-0.437 - 0.078]	-2.854	2.06E-01	6.59E-01	248	76
Right pars opercularis of inferior frontal gyrus	0.087	0.132	[-0.173 - 0.346]	1.481	5.44E-01	8.57E-01	249	74
Right pars orbitalis of inferior frontal gyrus	-0.370	0.132	[-0.629 - -0.112]	-5.261	9.29E-03	1.33E-01	250	76
Right pars triangularis of inferior frontal gyrus	-0.078	0.132	[-0.336 - 0.18]	-1.350	5.83E-01	8.78E-01	249	75
Right pericalcarine cortex	-0.077	0.131	[-0.333 - 0.18]	-1.410	5.88E-01	8.80E-01	250	76
Right postcentral gyrus	-0.204	0.131	[-0.461 - 0.054]	-2.627	1.50E-01	5.88E-01	248	76
Right posterior cingulate cortex	-0.125	0.131	[-0.382 - 0.132]	-2.060	3.76E-01	7.84E-01	250	76

Right precentral gyrus	-0.089	0.131	[-0.346 - 0.168]	-1.105	5.29E-01	8.51E-01	250	76
Right precuneus	-0.135	0.131	[-0.392 - 0.122]	-1.807	3.39E-01	7.65E-01	249	76
Right rostral anterior cingulate cortex	-0.347	0.132	[-0.605 - -0.088]	-7.659	1.49E-02	1.81E-01	249	76
Right rostral middle frontal gyrus	-0.284	0.132	[-0.542 - -0.026]	-4.272	4.60E-02	3.47E-01	248	76
Right superior frontal gyrus	-0.052	0.131	[-0.309 - 0.205]	-0.683	7.15E-01	9.31E-01	249	76
Right superior parietal cortex	-0.212	0.131	[-0.469 - 0.045]	-2.620	1.35E-01	5.66E-01	250	76
Right superior temporal gyrus	-0.231	0.131	[-0.488 - 0.027]	-2.854	1.04E-01	5.16E-01	250	76
Right supramarginal gyrus	-0.044	0.131	[-0.301 - 0.213]	-0.680	7.55E-01	9.44E-01	249	76
Right frontal pole	-0.309	0.132	[-0.567 - -0.051]	-5.332	2.95E-02	2.75E-01	250	76
Right temporal pole	-0.011	0.131	[-0.268 - 0.245]	-0.182	9.35E-01	9.89E-01	250	76
Right transverse temporal gyrus	-0.126	0.131	[-0.383 - 0.131]	-2.304	3.72E-01	7.84E-01	250	76
Right insula	-0.058	0.131	[-0.315 - 0.199]	-0.804	6.81E-01	9.23E-01	249	76
Left hemisphere total surface area	-0.226	0.135	[-0.491 - 0.039]	-2.437	1.20E-01	5.49E-01	243	71
Right hemisphere total surface area	-0.251	0.135	[-0.516 - 0.015]	-2.727	8.56E-02	4.75E-01	243	71

Supplementary Table 42. Effects of antiepileptics on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD AntiEpileptic FullMedM)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.453	0.123	[-0.694 - -0.211]	-3.671	5.80E-04	1.65E-02	225	96
Left caudal anterior cingulate cortex	-0.016	0.122	[-0.255 - 0.223]	-0.168	9.03E-01	9.83E-01	226	96
Left caudal middle frontal gyrus	-0.556	0.123	[-0.798 - -0.314]	-4.335	2.41E-05	1.04E-03	226	97
Left cuneus	-0.262	0.122	[-0.501 - -0.023]	-2.460	4.40E-02	3.41E-01	226	97
Left entorhinal cortex	-0.141	0.122	[-0.381 - 0.099]	-1.929	2.79E-01	7.13E-01	222	96
Left fusiform gyrus	-0.425	0.122	[-0.665 - -0.185]	-3.798	1.15E-03	2.73E-02	227	97
Left inferior parietal cortex	-0.564	0.123	[-0.805 - -0.322]	-4.012	1.83E-05	8.24E-04	227	97
Left inferior temporal gyrus	-0.364	0.122	[-0.603 - -0.125]	-3.792	5.22E-03	9.09E-02	227	97
Left isthmus cingulate cortex	-0.503	0.123	[-0.744 - -0.262]	-4.535	1.24E-04	4.88E-03	226	97
Left lateral occipital cortex	-0.451	0.123	[-0.691 - -0.21]	-3.179	5.79E-04	1.65E-02	226	97
Left lateral orbitofrontal cortex	-0.105	0.122	[-0.344 - 0.134]	-0.848	4.19E-01	8.13E-01	226	96
Left lingual gyrus	-0.446	0.123	[-0.686 - -0.205]	-3.343	6.56E-04	1.78E-02	227	97
Left medial orbitofrontal cortex	-0.225	0.122	[-0.465 - 0.014]	-2.168	8.43E-02	4.73E-01	226	96
Left middle temporal gyrus	-0.255	0.122	[-0.493 - -0.016]	-1.960	5.00E-02	3.69E-01	226	97
Left parahippocampal gyrus	-0.208	0.122	[-0.447 - 0.032]	-2.589	1.11E-01	5.36E-01	225	96
Left paracentral lobule	-0.562	0.123	[-0.804 - -0.32]	-4.790	1.96E-05	8.72E-04	226	97
Left pars opercularis of inferior frontal gyrus	-0.461	0.123	[-0.701 - -0.22]	-3.533	4.33E-04	1.33E-02	227	97
Left pars orbitalis of inferior frontal gyrus	-0.290	0.122	[-0.528 - -0.051]	-2.634	2.59E-02	2.61E-01	227	97
Left pars triangularis of inferior frontal gyrus	-0.491	0.123	[-0.732 - -0.25]	-4.100	1.80E-04	6.49E-03	227	97
Left pericalcarine cortex	-0.199	0.122	[-0.438 - 0.039]	-2.326	1.25E-01	5.53E-01	225	97
Left postcentral gyrus	-0.433	0.123	[-0.674 - -0.192]	-3.527	9.59E-04	2.42E-02	226	96
Left posterior cingulate cortex	-0.303	0.122	[-0.542 - -0.064]	-2.237	1.98E-02	2.18E-01	227	97
Left precentral gyrus	-0.433	0.123	[-0.673 - -0.192]	-3.480	9.46E-04	2.40E-02	226	97
Left precuneus	-0.706	0.124	[-0.95 - -0.462]	-5.158	1.05E-07	7.38E-06	227	97
Left rostral anterior cingulate cortex	-0.204	0.122	[-0.443 - 0.035]	-2.026	1.16E-01	5.43E-01	225	97

Left rostral middle frontal gyrus	-0.450	0.123	[-0.692 - -0.208]	-3.444	6.23E-04	1.72E-02	227	95
Left superior frontal gyrus	-0.571	0.124	[-0.814 - -0.329]	-4.223	1.54E-05	7.16E-04	227	96
Left superior parietal cortex	-0.572	0.123	[-0.814 - -0.33]	-4.458	1.40E-05	6.63E-04	227	97
Left superior temporal gyrus	-0.430	0.123	[-0.671 - -0.189]	-3.043	1.05E-03	2.55E-02	226	96
Left supramarginal gyrus	-0.495	0.123	[-0.736 - -0.254]	-3.632	1.61E-04	5.95E-03	226	97
Left frontal pole	-0.273	0.122	[-0.512 - -0.035]	-3.239	3.55E-02	3.10E-01	227	97
Left temporal pole	0.043	0.121	[-0.194 - 0.281]	0.653	7.38E-01	9.37E-01	227	97
Left transverse temporal gyrus	-0.498	0.123	[-0.739 - -0.257]	-5.305	1.48E-04	5.67E-03	226	97
Left insula	-0.176	0.122	[-0.415 - 0.062]	-1.226	1.75E-01	6.21E-01	225	97
Right banks of superior temporal sulcus	-0.364	0.123	[-0.605 - -0.124]	-3.032	5.38E-03	9.11E-02	226	96
Right caudal anterior cingulate cortex	-0.004	0.122	[-0.243 - 0.234]	-0.046	9.73E-01	9.97E-01	226	96
Right caudal middle frontal gyrus	-0.397	0.122	[-0.637 - -0.157]	-3.124	2.38E-03	5.08E-02	226	97
Right cuneus	-0.369	0.122	[-0.609 - -0.13]	-3.439	4.62E-03	8.32E-02	227	97
Right entorhinal cortex	-0.077	0.123	[-0.317 - 0.163]	-1.141	5.57E-01	8.66E-01	222	95
Right fusiform gyrus	-0.483	0.123	[-0.724 - -0.241]	-4.393	2.43E-04	8.29E-03	227	96
Right inferior parietal cortex	-0.389	0.123	[-0.629 - -0.148]	-2.877	2.93E-03	5.95E-02	227	96
Right inferior temporal gyrus	-0.394	0.122	[-0.634 - -0.155]	-4.382	2.51E-03	5.27E-02	227	97
Right isthmus cingulate cortex	-0.363	0.122	[-0.603 - -0.124]	-3.294	5.38E-03	9.11E-02	226	97
Right lateral occipital cortex	-0.385	0.122	[-0.624 - -0.145]	-2.838	3.19E-03	6.28E-02	227	97
Right lateral orbitofrontal cortex	-0.228	0.122	[-0.468 - 0.011]	-1.884	7.98E-02	4.59E-01	226	96
Right lingual gyrus	-0.248	0.122	[-0.487 - -0.009]	-1.850	5.63E-02	3.88E-01	225	97
Right medial orbitofrontal cortex	-0.069	0.122	[-0.308 - 0.17]	-0.653	5.96E-01	8.83E-01	226	96
Right middle temporal gyrus	-0.385	0.122	[-0.625 - -0.146]	-3.533	3.13E-03	6.20E-02	227	97
Right parahippocampal gyrus	-0.147	0.122	[-0.386 - 0.091]	-1.751	2.56E-01	6.97E-01	226	97
Right paracentral lobule	-0.659	0.125	[-0.903 - -0.415]	-5.478	6.87E-07	4.32E-05	226	96
Right pars opercularis of inferior frontal gyrus	-0.320	0.122	[-0.559 - -0.081]	-2.485	1.39E-02	1.73E-01	227	97
Right pars orbitalis of inferior frontal gyrus	-0.346	0.122	[-0.585 - -0.107]	-3.093	7.86E-03	1.20E-01	227	97
Right pars triangularis of inferior frontal gyrus	-0.488	0.123	[-0.729 - -0.247]	-4.048	1.96E-04	6.92E-03	227	97
Right pericalcarine cortex	-0.177	0.122	[-0.416 - 0.061]	-2.046	1.72E-01	6.15E-01	226	97
Right postcentral gyrus	-0.447	0.123	[-0.688 - -0.207]	-3.798	6.26E-04	1.72E-02	227	97
Right posterior cingulate cortex	-0.335	0.122	[-0.575 - -0.095]	-2.581	1.04E-02	1.41E-01	227	96

Right precentral gyrus	-0.378	0.122	[-0.617 - -0.138]	-3.060	3.82E-03	7.16E-02	226	97
Right precuneus	-0.576	0.123	[-0.818 - -0.334]	-4.398	1.22E-05	5.96E-04	226	97
Right rostral anterior cingulate cortex	-0.043	0.121	[-0.281 - 0.195]	-0.427	7.39E-01	9.38E-01	227	97
Right rostral middle frontal gyrus	-0.433	0.123	[-0.674 - -0.192]	-3.363	9.69E-04	2.43E-02	227	96
Right superior frontal gyrus	-0.498	0.123	[-0.74 - -0.257]	-3.670	1.52E-04	5.76E-03	227	96
Right superior parietal cortex	-0.599	0.124	[-0.841 - -0.357]	-5.130	5.51E-06	3.02E-04	227	97
Right superior temporal gyrus	-0.493	0.123	[-0.733 - -0.252]	-3.789	1.71E-04	6.22E-03	227	97
Right supramarginal gyrus	-0.475	0.123	[-0.715 - -0.234]	-3.548	2.91E-04	9.55E-03	227	97
Right frontal pole	-0.016	0.121	[-0.253 - 0.222]	-0.187	9.03E-01	9.83E-01	227	97
Right temporal pole	-0.176	0.122	[-0.414 - 0.062]	-2.734	1.75E-01	6.21E-01	227	97
Right transverse temporal gyrus	-0.481	0.123	[-0.722 - -0.241]	-5.206	2.38E-04	8.19E-03	227	97
Right insula	-0.275	0.122	[-0.514 - -0.036]	-1.909	3.44E-02	3.05E-01	226	97
Left hemisphere average thickness	-0.609	0.124	[-0.852 - -0.366]	-3.376	3.84E-06	2.23E-04	224	97
Right hemisphere average thickness	-0.576	0.124	[-0.818 - -0.333]	-3.246	1.21E-05	5.96E-04	224	97

Supplementary Table 43. Effects of antiepileptics on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD AntiEpileptic FullMedM)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.045	0.122	[-0.284 - 0.194]	-0.789	7.31E-01	9.36E-01	224	96
Left caudal anterior cingulate cortex	0.003	0.121	[-0.235 - 0.241]	0.069	9.81E-01	9.97E-01	225	97
Left caudal middle frontal gyrus	0.071	0.121	[-0.167 - 0.309]	1.231	5.87E-01	8.79E-01	226	97
Left cuneus	0.021	0.121	[-0.217 - 0.259]	0.342	8.73E-01	9.82E-01	225	97
Left entorhinal cortex	-0.173	0.122	[-0.413 - 0.067]	-3.734	1.89E-01	6.42E-01	221	96
Left fusiform gyrus	0.068	0.121	[-0.17 - 0.305]	1.000	6.05E-01	8.88E-01	226	97
Left inferior parietal cortex	-0.009	0.121	[-0.247 - 0.229]	-0.135	9.45E-01	9.93E-01	225	97
Left inferior temporal gyrus	0.088	0.121	[-0.15 - 0.326]	1.522	4.99E-01	8.43E-01	226	97
Left isthmus cingulate cortex	-0.050	0.121	[-0.288 - 0.188]	-0.929	7.02E-01	9.26E-01	225	97
Left lateral occipital cortex	-0.102	0.121	[-0.341 - 0.136]	-1.419	4.32E-01	8.22E-01	226	97
Left lateral orbitofrontal cortex	-0.105	0.122	[-0.344 - 0.134]	-1.383	4.23E-01	8.15E-01	225	96
Left lingual gyrus	0.077	0.122	[-0.161 - 0.316]	1.169	5.54E-01	8.63E-01	225	97
Left medial orbitofrontal cortex	-0.074	0.122	[-0.313 - 0.165]	-1.095	5.72E-01	8.74E-01	225	96
Left middle temporal gyrus	-0.098	0.122	[-0.336 - 0.14]	-1.452	4.54E-01	8.30E-01	225	97
Left parahippocampal gyrus	0.020	0.122	[-0.219 - 0.26]	0.328	8.76E-01	9.82E-01	224	96
Left paracentral lobule	-0.084	0.122	[-0.322 - 0.155]	-1.254	5.22E-01	8.47E-01	225	97
Left pars opercularis of inferior frontal gyrus	-0.025	0.121	[-0.263 - 0.213]	-0.409	8.49E-01	9.77E-01	225	97
Left pars orbitalis of inferior frontal gyrus	-0.025	0.121	[-0.263 - 0.213]	-0.362	8.47E-01	9.76E-01	226	97
Left pars triangularis of inferior frontal gyrus	0.081	0.122	[-0.158 - 0.319]	1.287	5.37E-01	8.53E-01	225	97
Left pericalcarine cortex	-0.018	0.121	[-0.257 - 0.22]	-0.337	8.88E-01	9.82E-01	225	97
Left postcentral gyrus	-0.073	0.122	[-0.311 - 0.166]	-0.910	5.79E-01	8.75E-01	224	97
Left posterior cingulate cortex	0.081	0.122	[-0.158 - 0.32]	1.353	5.37E-01	8.53E-01	226	96
Left precentral gyrus	-0.153	0.122	[-0.391 - 0.086]	-1.893	2.42E-01	6.91E-01	225	97
Left precuneus	-0.040	0.121	[-0.278 - 0.198]	-0.530	7.58E-01	9.45E-01	226	97
Left rostral anterior cingulate cortex	0.071	0.121	[-0.167 - 0.309]	1.489	5.86E-01	8.79E-01	225	97

Left rostral middle frontal gyrus	0.145	0.122	[-0.095 - 0.385]	2.140	2.69E-01	7.06E-01	226	95
Left superior frontal gyrus	-0.095	0.122	[-0.334 - 0.144]	-1.207	4.68E-01	8.34E-01	226	96
Left superior parietal cortex	-0.035	0.121	[-0.273 - 0.202]	-0.452	7.86E-01	9.57E-01	226	97
Left superior temporal gyrus	-0.051	0.122	[-0.29 - 0.188]	-0.647	6.96E-01	9.26E-01	224	96
Left supramarginal gyrus	0.020	0.122	[-0.218 - 0.258]	0.309	8.77E-01	9.82E-01	224	97
Left frontal pole	-0.017	0.121	[-0.255 - 0.221]	-0.304	8.96E-01	9.83E-01	226	97
Left temporal pole	0.060	0.121	[-0.178 - 0.298]	0.943	6.44E-01	9.08E-01	226	97
Left transverse temporal gyrus	0.032	0.121	[-0.206 - 0.27]	0.552	8.07E-01	9.63E-01	226	97
Left insula	0.193	0.122	[-0.046 - 0.431]	2.534	1.41E-01	5.75E-01	224	97
Right banks of superior temporal sulcus	-0.181	0.122	[-0.42 - 0.059]	-3.377	1.69E-01	6.12E-01	225	96
Right caudal anterior cingulate cortex	0.013	0.121	[-0.225 - 0.251]	0.285	9.21E-01	9.85E-01	225	97
Right caudal middle frontal gyrus	0.073	0.121	[-0.165 - 0.311]	1.347	5.77E-01	8.75E-01	225	97
Right cuneus	-0.159	0.122	[-0.398 - 0.079]	-2.446	2.22E-01	6.75E-01	226	97
Right entorhinal cortex	-0.249	0.123	[-0.49 - -0.008]	-5.903	6.01E-02	3.96E-01	221	95
Right fusiform gyrus	0.035	0.122	[-0.204 - 0.274]	0.514	7.88E-01	9.58E-01	226	96
Right inferior parietal cortex	0.014	0.122	[-0.225 - 0.253]	0.212	9.14E-01	9.83E-01	226	96
Right inferior temporal gyrus	0.144	0.122	[-0.094 - 0.382]	2.480	2.71E-01	7.08E-01	226	97
Right isthmus cingulate cortex	0.146	0.122	[-0.092 - 0.384]	2.655	2.64E-01	7.03E-01	226	97
Right lateral occipital cortex	-0.083	0.122	[-0.321 - 0.155]	-1.166	5.27E-01	8.50E-01	225	97
Right lateral orbitofrontal cortex	-0.010	0.122	[-0.249 - 0.229]	-0.138	9.38E-01	9.91E-01	225	96
Right lingual gyrus	0.027	0.121	[-0.211 - 0.265]	0.395	8.39E-01	9.73E-01	225	97
Right medial orbitofrontal cortex	-0.050	0.122	[-0.289 - 0.189]	-0.685	7.02E-01	9.26E-01	225	96
Right middle temporal gyrus	0.019	0.121	[-0.219 - 0.257]	0.291	8.85E-01	9.82E-01	226	97
Right parahippocampal gyrus	0.092	0.122	[-0.146 - 0.33]	1.416	4.82E-01	8.40E-01	225	97
Right paracentral lobule	0.004	0.122	[-0.235 - 0.243]	0.061	9.77E-01	9.97E-01	225	96
Right pars opercularis of inferior frontal gyrus	-0.073	0.122	[-0.312 - 0.165]	-1.247	5.76E-01	8.75E-01	223	97
Right pars orbitalis of inferior frontal gyrus	0.111	0.121	[-0.127 - 0.349]	1.575	3.96E-01	7.98E-01	226	97
Right pars triangularis of inferior frontal gyrus	0.004	0.122	[-0.235 - 0.242]	0.061	9.79E-01	9.97E-01	224	97
Right pericalcarine cortex	-0.087	0.121	[-0.325 - 0.151]	-1.598	5.06E-01	8.43E-01	226	97
Right postcentral gyrus	-0.033	0.122	[-0.272 - 0.206]	-0.427	8.00E-01	9.62E-01	225	96
Right posterior cingulate cortex	0.109	0.121	[-0.129 - 0.347]	1.786	4.06E-01	8.01E-01	226	97

Right precentral gyrus	-0.059	0.121	[-0.297 - 0.179]	-0.732	6.51E-01	9.12E-01	226	97
Right precuneus	0.072	0.121	[-0.166 - 0.31]	0.960	5.82E-01	8.78E-01	225	97
Right rostral anterior cingulate cortex	-0.188	0.122	[-0.426 - 0.051]	-4.150	1.51E-01	5.89E-01	225	97
Right rostral middle frontal gyrus	-0.022	0.122	[-0.261 - 0.217]	-0.330	8.67E-01	9.81E-01	225	96
Right superior frontal gyrus	-0.100	0.122	[-0.339 - 0.139]	-1.323	4.45E-01	8.24E-01	226	96
Right superior parietal cortex	-0.083	0.121	[-0.321 - 0.155]	-1.022	5.26E-01	8.50E-01	226	97
Right superior temporal gyrus	-0.088	0.121	[-0.326 - 0.15]	-1.094	4.98E-01	8.43E-01	226	97
Right supramarginal gyrus	-0.158	0.122	[-0.397 - 0.08]	-2.433	2.26E-01	6.79E-01	225	97
Right frontal pole	-0.030	0.121	[-0.268 - 0.208]	-0.521	8.17E-01	9.67E-01	226	97
Right temporal pole	-0.042	0.121	[-0.28 - 0.196]	-0.670	7.46E-01	9.40E-01	226	97
Right transverse temporal gyrus	-0.073	0.121	[-0.311 - 0.165]	-1.337	5.74E-01	8.75E-01	226	97
Right insula	0.040	0.121	[-0.198 - 0.278]	0.552	7.60E-01	9.46E-01	225	97
Left hemisphere total surface area	0.005	0.124	[-0.239 - 0.249]	0.054	9.70E-01	9.97E-01	219	92
Right hemisphere total surface area	-0.024	0.124	[-0.268 - 0.219]	-0.263	8.56E-01	9.78E-01	219	92

Supplementary Table 44. Effects of typical antipsychotics on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD Gen1AntiPsych FullMedM)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.137	0.283	[-0.418 - 0.692]	1.109	6.50E-01	9.12E-01	306	13
Left caudal anterior cingulate cortex	-0.420	0.284	[-0.976 - 0.135]	-4.438	1.64E-01	6.04E-01	307	13
Left caudal middle frontal gyrus	-0.360	0.284	[-0.916 - 0.195]	-2.810	2.32E-01	6.85E-01	308	13
Left cuneus	0.061	0.283	[-0.494 - 0.616]	0.575	8.39E-01	9.73E-01	308	13
Left entorhinal cortex	0.063	0.283	[-0.492 - 0.618]	0.863	8.34E-01	9.73E-01	304	13
Left fusiform gyrus	-0.263	0.283	[-0.818 - 0.293]	-2.349	3.83E-01	7.87E-01	309	13
Left inferior parietal cortex	-0.270	0.283	[-0.826 - 0.285]	-1.924	3.70E-01	7.83E-01	309	13
Left inferior temporal gyrus	-0.570	0.284	[-1.126 - -0.013]	-5.933	5.94E-02	3.94E-01	309	13
Left isthmus cingulate cortex	0.328	0.283	[-0.228 - 0.883]	2.954	2.77E-01	7.13E-01	309	13
Left lateral occipital cortex	0.068	0.283	[-0.487 - 0.623]	0.483	8.20E-01	9.68E-01	308	13
Left lateral orbitofrontal cortex	-0.065	0.283	[-0.62 - 0.49]	-0.527	8.28E-01	9.71E-01	307	13
Left lingual gyrus	0.454	0.284	[-0.102 - 1.01]	3.403	1.33E-01	5.66E-01	309	13
Left medial orbitofrontal cortex	-0.487	0.284	[-1.044 - 0.069]	-4.693	1.07E-01	5.22E-01	307	13
Left middle temporal gyrus	-0.047	0.283	[-0.601 - 0.508]	-0.358	8.77E-01	9.82E-01	308	13
Left parahippocampal gyrus	-0.372	0.284	[-0.928 - 0.183]	-4.642	2.17E-01	6.71E-01	306	13
Left paracentral lobule	-0.111	0.283	[-0.666 - 0.444]	-0.947	7.12E-01	9.30E-01	308	13
Left pars opercularis of inferior frontal gyrus	-0.370	0.284	[-0.926 - 0.185]	-2.842	2.19E-01	6.71E-01	309	13
Left pars orbitalis of inferior frontal gyrus	-0.117	0.283	[-0.672 - 0.438]	-1.065	6.97E-01	9.26E-01	309	13
Left pars triangularis of inferior frontal gyrus	-0.222	0.283	[-0.777 - 0.333]	-1.853	4.62E-01	8.33E-01	309	13
Left pericalcarine cortex	0.004	0.283	[-0.551 - 0.559]	0.043	9.90E-01	9.97E-01	307	13
Left postcentral gyrus	0.059	0.283	[-0.496 - 0.614]	0.485	8.43E-01	9.75E-01	307	13
Left posterior cingulate cortex	0.348	0.283	[-0.208 - 0.903]	2.566	2.49E-01	6.91E-01	309	13
Left precentral gyrus	0.048	0.283	[-0.507 - 0.602]	0.382	8.75E-01	9.82E-01	308	13
Left precuneus	-0.279	0.283	[-0.834 - 0.276]	-2.039	3.55E-01	7.77E-01	309	13
Left rostral anterior cingulate cortex	-0.349	0.283	[-0.904 - 0.207]	-3.462	2.48E-01	6.91E-01	307	13

Left rostral middle frontal gyrus	-0.138	0.283	[-0.693 - 0.418]	-1.052	6.48E-01	9.10E-01	307	13
Left superior frontal gyrus	-0.320	0.283	[-0.876 - 0.235]	-2.366	2.89E-01	7.21E-01	308	13
Left superior parietal cortex	-0.023	0.283	[-0.578 - 0.532]	-0.179	9.39E-01	9.92E-01	309	13
Left superior temporal gyrus	-0.080	0.283	[-0.635 - 0.475]	-0.563	7.92E-01	9.58E-01	307	13
Left supramarginal gyrus	0.051	0.283	[-0.504 - 0.606]	0.376	8.65E-01	9.81E-01	308	13
Left frontal pole	-0.258	0.283	[-0.814 - 0.297]	-3.062	3.91E-01	7.94E-01	309	13
Left temporal pole	-0.185	0.283	[-0.74 - 0.37]	-2.790	5.38E-01	8.54E-01	309	13
Left transverse temporal gyrus	-0.273	0.283	[-0.828 - 0.283]	-2.904	3.66E-01	7.81E-01	308	13
Left insula	-0.014	0.283	[-0.569 - 0.541]	-0.094	9.64E-01	9.96E-01	307	13
Right banks of superior temporal sulcus	0.299	0.283	[-0.256 - 0.855]	2.488	3.21E-01	7.47E-01	307	13
Right caudal anterior cingulate cortex	0.397	0.284	[-0.159 - 0.953]	4.160	1.88E-01	6.42E-01	307	13
Right caudal middle frontal gyrus	-0.267	0.283	[-0.823 - 0.288]	-2.103	3.75E-01	7.84E-01	308	13
Right cuneus	0.005	0.283	[-0.55 - 0.56]	0.046	9.87E-01	9.97E-01	309	13
Right entorhinal cortex	-0.037	0.294	[-0.613 - 0.54]	-0.543	9.07E-01	9.83E-01	303	12
Right fusiform gyrus	-0.208	0.294	[-0.784 - 0.369]	-1.890	5.08E-01	8.43E-01	309	12
Right inferior parietal cortex	0.018	0.283	[-0.537 - 0.573]	0.130	9.53E-01	9.95E-01	308	13
Right inferior temporal gyrus	-0.384	0.284	[-0.94 - 0.171]	-4.269	2.03E-01	6.58E-01	309	13
Right isthmus cingulate cortex	0.285	0.283	[-0.271 - 0.84]	2.585	3.45E-01	7.70E-01	308	13
Right lateral occipital cortex	-0.218	0.283	[-0.773 - 0.337]	-1.607	4.70E-01	8.35E-01	309	13
Right lateral orbitofrontal cortex	-0.462	0.284	[-1.018 - 0.094]	-3.811	1.26E-01	5.53E-01	307	13
Right lingual gyrus	0.209	0.283	[-0.346 - 0.764]	1.556	4.88E-01	8.43E-01	307	13
Right medial orbitofrontal cortex	-0.321	0.283	[-0.876 - 0.235]	-3.036	2.88E-01	7.21E-01	307	13
Right middle temporal gyrus	-0.153	0.283	[-0.708 - 0.402]	-1.407	6.11E-01	8.88E-01	309	13
Right parahippocampal gyrus	-0.273	0.283	[-0.828 - 0.283]	-3.240	3.66E-01	7.81E-01	308	13
Right paracentral lobule	0.255	0.283	[-0.301 - 0.81]	2.118	3.97E-01	7.98E-01	307	13
Right pars opercularis of inferior frontal gyrus	-0.207	0.283	[-0.762 - 0.348]	-1.604	4.93E-01	8.43E-01	309	13
Right pars orbitalis of inferior frontal gyrus	-0.371	0.284	[-0.926 - 0.185]	-3.310	2.19E-01	6.71E-01	309	13
Right pars triangularis of inferior frontal gyrus	-0.253	0.283	[-0.808 - 0.303]	-2.095	4.02E-01	8.00E-01	309	13
Right pericalcarine cortex	0.006	0.283	[-0.549 - 0.561]	0.072	9.83E-01	9.97E-01	308	13
Right postcentral gyrus	0.243	0.283	[-0.312 - 0.798]	2.065	4.20E-01	8.13E-01	309	13
Right posterior cingulate cortex	0.308	0.283	[-0.248 - 0.863]	2.371	3.08E-01	7.39E-01	308	13

Right precentral gyrus	0.237	0.283	[-0.318 - 0.792]	1.920	4.32E-01	8.22E-01	308	13
Right precuneus	0.090	0.283	[-0.465 - 0.645]	0.686	7.65E-01	9.46E-01	308	13
Right rostral anterior cingulate cortex	-0.469	0.284	[-1.025 - 0.087]	-4.646	1.20E-01	5.49E-01	309	13
Right rostral middle frontal gyrus	0.014	0.283	[-0.541 - 0.569]	0.106	9.64E-01	9.96E-01	308	13
Right superior frontal gyrus	-0.345	0.283	[-0.901 - 0.21]	-2.543	2.52E-01	6.93E-01	308	13
Right superior parietal cortex	-0.102	0.283	[-0.657 - 0.453]	-0.872	7.35E-01	9.37E-01	309	13
Right superior temporal gyrus	-0.045	0.283	[-0.6 - 0.51]	-0.347	8.81E-01	9.82E-01	309	13
Right supramarginal gyrus	0.056	0.283	[-0.499 - 0.611]	0.416	8.53E-01	9.78E-01	309	13
Right frontal pole	0.142	0.283	[-0.413 - 0.697]	1.692	6.38E-01	9.04E-01	309	13
Right temporal pole	-0.127	0.283	[-0.682 - 0.428]	-1.978	6.73E-01	9.20E-01	309	13
Right transverse temporal gyrus	0.142	0.283	[-0.413 - 0.697]	1.538	6.37E-01	9.04E-01	309	13
Right insula	-0.006	0.283	[-0.561 - 0.549]	-0.041	9.84E-01	9.97E-01	308	13
Left hemisphere average thickness	-0.205	0.283	[-0.761 - 0.35]	-1.139	4.95E-01	8.43E-01	308	13
Right hemisphere average thickness	-0.147	0.283	[-0.702 - 0.408]	-0.830	6.25E-01	8.96E-01	308	13

Supplementary Table 45. Effects of typical antipsychotics on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD Gen1AntiPsych FullMedM)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.152	0.283	[-0.403 - 0.707]	2.660	6.16E-01	8.92E-01	305	13
Left caudal anterior cingulate cortex	0.093	0.283	[-0.462 - 0.648]	2.041	7.60E-01	9.46E-01	307	13
Left caudal middle frontal gyrus	0.039	0.283	[-0.516 - 0.594]	0.675	8.98E-01	9.83E-01	308	13
Left cuneus	-0.049	0.283	[-0.604 - 0.506]	-0.797	8.72E-01	9.82E-01	307	13
Left entorhinal cortex	-0.181	0.283	[-0.737 - 0.374]	-3.919	5.51E-01	8.63E-01	303	13
Left fusiform gyrus	-0.436	0.284	[-0.992 - 0.12]	-6.457	1.52E-01	5.89E-01	308	13
Left inferior parietal cortex	-0.107	0.283	[-0.662 - 0.448]	-1.598	7.25E-01	9.34E-01	307	13
Left inferior temporal gyrus	-0.041	0.283	[-0.596 - 0.514]	-0.714	8.91E-01	9.82E-01	308	13
Left isthmus cingulate cortex	0.382	0.284	[-0.174 - 0.937]	7.114	2.09E-01	6.62E-01	308	13
Left lateral occipital cortex	-0.651	0.284	[-1.208 - -0.094]	-9.019	3.26E-02	2.93E-01	308	13
Left lateral orbitofrontal cortex	-0.068	0.283	[-0.623 - 0.487]	-0.890	8.24E-01	9.70E-01	306	13
Left lingual gyrus	-0.125	0.283	[-0.68 - 0.43]	-1.888	6.81E-01	9.23E-01	307	13
Left medial orbitofrontal cortex	0.282	0.283	[-0.274 - 0.837]	4.165	3.54E-01	7.77E-01	306	13
Left middle temporal gyrus	0.234	0.283	[-0.321 - 0.789]	3.467	4.41E-01	8.23E-01	307	13
Left parahippocampal gyrus	0.892	0.285	[0.333 - 1.452]	14.275	3.55E-03	6.82E-02	305	13
Left paracentral lobule	-0.213	0.283	[-0.768 - 0.342]	-3.198	4.83E-01	8.40E-01	307	13
Left pars opercularis of inferior frontal gyrus	-0.003	0.283	[-0.558 - 0.552]	-0.047	9.92E-01	9.98E-01	307	13
Left pars orbitalis of inferior frontal gyrus	-0.189	0.283	[-0.744 - 0.366]	-2.722	5.34E-01	8.53E-01	308	13
Left pars triangularis of inferior frontal gyrus	-0.088	0.283	[-0.643 - 0.467]	-1.411	7.71E-01	9.49E-01	307	13
Left pericalcarine cortex	-0.348	0.283	[-0.904 - 0.207]	-6.374	2.51E-01	6.93E-01	307	13
Left postcentral gyrus	-0.055	0.283	[-0.61 - 0.5]	-0.689	8.56E-01	9.78E-01	306	13
Left posterior cingulate cortex	-0.297	0.283	[-0.853 - 0.258]	-4.979	3.28E-01	7.53E-01	307	13
Left precentral gyrus	-0.092	0.283	[-0.647 - 0.463]	-1.140	7.62E-01	9.46E-01	307	13
Left precuneus	0.545	0.284	[-0.011 - 1.102]	7.186	7.33E-02	4.38E-01	308	13
Left rostral anterior cingulate cortex	0.627	0.284	[0.069 - 1.184]	13.127	3.97E-02	3.29E-01	307	13

Left rostral middle frontal gyrus	0.117	0.283	[-0.438 - 0.672]	1.723	7.00E-01	9.26E-01	306	13
Left superior frontal gyrus	0.043	0.283	[-0.512 - 0.598]	0.545	8.88E-01	9.82E-01	307	13
Left superior parietal cortex	-0.009	0.283	[-0.564 - 0.546]	-0.110	9.77E-01	9.97E-01	308	13
Left superior temporal gyrus	0.085	0.283	[-0.47 - 0.64]	1.075	7.79E-01	9.55E-01	305	13
Left supramarginal gyrus	-0.350	0.284	[-0.906 - 0.205]	-5.356	2.49E-01	6.91E-01	306	13
Left frontal pole	-0.478	0.284	[-1.034 - 0.078]	-8.487	1.16E-01	5.43E-01	308	13
Left temporal pole	0.122	0.283	[-0.433 - 0.677]	1.909	6.87E-01	9.25E-01	308	13
Left transverse temporal gyrus	-0.073	0.283	[-0.628 - 0.482]	-1.270	8.09E-01	9.64E-01	308	13
Left insula	-0.163	0.283	[-0.719 - 0.392]	-2.148	5.91E-01	8.80E-01	306	13
Right banks of superior temporal sulcus	-0.014	0.283	[-0.569 - 0.541]	-0.262	9.63E-01	9.96E-01	306	13
Right caudal anterior cingulate cortex	-0.223	0.283	[-0.778 - 0.333]	-4.889	4.64E-01	8.33E-01	307	13
Right caudal middle frontal gyrus	-0.136	0.283	[-0.691 - 0.419]	-2.512	6.54E-01	9.13E-01	307	13
Right cuneus	-0.431	0.284	[-0.987 - 0.125]	-6.608	1.57E-01	5.95E-01	308	13
Right entorhinal cortex	-0.464	0.295	[-1.042 - 0.114]	-10.991	1.43E-01	5.76E-01	302	12
Right fusiform gyrus	-0.129	0.294	[-0.706 - 0.448]	-1.888	6.82E-01	9.23E-01	308	12
Right inferior parietal cortex	-0.033	0.283	[-0.588 - 0.522]	-0.501	9.13E-01	9.83E-01	307	13
Right inferior temporal gyrus	-0.235	0.283	[-0.79 - 0.32]	-4.048	4.39E-01	8.23E-01	308	13
Right isthmus cingulate cortex	1.075	0.286	[0.513 - 1.636]	19.566	4.61E-04	1.39E-02	308	13
Right lateral occipital cortex	-0.375	0.284	[-0.931 - 0.181]	-5.283	2.18E-01	6.71E-01	307	13
Right lateral orbitofrontal cortex	0.224	0.283	[-0.331 - 0.779]	3.045	4.61E-01	8.33E-01	306	13
Right lingual gyrus	-0.038	0.283	[-0.593 - 0.517]	-0.570	8.99E-01	9.83E-01	307	13
Right medial orbitofrontal cortex	0.080	0.283	[-0.475 - 0.635]	1.092	7.92E-01	9.58E-01	306	13
Right middle temporal gyrus	0.159	0.283	[-0.396 - 0.714]	2.456	5.99E-01	8.85E-01	308	13
Right parahippocampal gyrus	-0.246	0.283	[-0.801 - 0.309]	-3.790	4.18E-01	8.11E-01	307	13
Right paracentral lobule	-0.296	0.283	[-0.851 - 0.26]	-4.705	3.30E-01	7.55E-01	306	13
Right pars opercularis of inferior frontal gyrus	-0.325	0.283	[-0.881 - 0.231]	-5.541	2.85E-01	7.18E-01	305	13
Right pars orbitalis of inferior frontal gyrus	0.019	0.283	[-0.536 - 0.574]	0.272	9.50E-01	9.94E-01	308	13
Right pars triangularis of inferior frontal gyrus	0.110	0.283	[-0.445 - 0.665]	1.900	7.17E-01	9.31E-01	306	13
Right pericalcarine cortex	-0.393	0.284	[-0.949 - 0.162]	-7.242	1.95E-01	6.46E-01	308	13
Right postcentral gyrus	0.293	0.283	[-0.262 - 0.849]	3.783	3.33E-01	7.58E-01	306	13
Right posterior cingulate cortex	-0.052	0.283	[-0.606 - 0.503]	-0.847	8.65E-01	9.81E-01	308	13

Right precentral gyrus	-0.116	0.283	[-0.671 - 0.439]	-1.436	7.03E-01	9.26E-01	308	13
Right precuneus	0.188	0.283	[-0.367 - 0.743]	2.507	5.36E-01	8.53E-01	307	13
Right rostral anterior cingulate cortex	0.058	0.283	[-0.497 - 0.613]	1.273	8.49E-01	9.77E-01	307	13
Right rostral middle frontal gyrus	0.041	0.283	[-0.514 - 0.596]	0.620	8.92E-01	9.82E-01	306	13
Right superior frontal gyrus	0.298	0.283	[-0.257 - 0.854]	3.938	3.26E-01	7.53E-01	307	13
Right superior parietal cortex	0.204	0.283	[-0.351 - 0.759]	2.522	5.01E-01	8.43E-01	308	13
Right superior temporal gyrus	0.098	0.283	[-0.458 - 0.653]	1.206	7.48E-01	9.41E-01	308	13
Right supramarginal gyrus	-0.047	0.283	[-0.602 - 0.508]	-0.728	8.76E-01	9.82E-01	307	13
Right frontal pole	-0.049	0.283	[-0.604 - 0.506]	-0.844	8.72E-01	9.82E-01	308	13
Right temporal pole	-0.194	0.283	[-0.749 - 0.362]	-3.071	5.24E-01	8.48E-01	308	13
Right transverse temporal gyrus	0.122	0.283	[-0.433 - 0.677]	2.217	6.89E-01	9.25E-01	308	13
Right insula	0.024	0.283	[-0.531 - 0.579]	0.330	9.37E-01	9.91E-01	307	13
Left hemisphere total surface area	0.001	0.283	[-0.554 - 0.557]	0.014	9.97E-01	9.99E-01	298	13
Right hemisphere total surface area	0.033	0.283	[-0.523 - 0.588]	0.354	9.15E-01	9.83E-01	298	13

Supplementary Table 46. Effects of atypical antipsychotics on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD Gen2AntiPsych FullMedM)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.250	0.121	[-0.487 - -0.013]	-2.027	5.25E-02	3.78E-01	219	100
Left caudal anterior cingulate cortex	-0.256	0.121	[-0.493 - -0.02]	-2.707	4.59E-02	3.47E-01	219	101
Left caudal middle frontal gyrus	-0.111	0.120	[-0.347 - 0.125]	-0.866	3.86E-01	7.87E-01	220	101
Left cuneus	0.028	0.120	[-0.207 - 0.264]	0.267	8.24E-01	9.70E-01	220	101
Left entorhinal cortex	0.004	0.121	[-0.232 - 0.24]	0.053	9.76E-01	9.97E-01	216	101
Left fusiform gyrus	-0.095	0.120	[-0.331 - 0.14]	-0.851	4.57E-01	8.32E-01	221	101
Left inferior parietal cortex	-0.144	0.120	[-0.38 - 0.092]	-1.026	2.60E-01	7.02E-01	221	101
Left inferior temporal gyrus	-0.090	0.120	[-0.326 - 0.145]	-0.941	4.80E-01	8.39E-01	221	101
Left isthmus cingulate cortex	-0.060	0.120	[-0.295 - 0.176]	-0.540	6.40E-01	9.05E-01	221	101
Left lateral occipital cortex	-0.075	0.121	[-0.312 - 0.161]	-0.531	5.57E-01	8.66E-01	221	100
Left lateral orbitofrontal cortex	-0.132	0.120	[-0.368 - 0.104]	-1.063	3.04E-01	7.37E-01	219	101
Left lingual gyrus	0.079	0.120	[-0.156 - 0.315]	0.595	5.35E-01	8.53E-01	221	101
Left medial orbitofrontal cortex	-0.194	0.121	[-0.43 - 0.043]	-1.865	1.31E-01	5.63E-01	219	101
Left middle temporal gyrus	-0.163	0.121	[-0.4 - 0.073]	-1.256	2.04E-01	6.58E-01	221	100
Left parahippocampal gyrus	-0.140	0.120	[-0.376 - 0.096]	-1.744	2.75E-01	7.13E-01	218	101
Left paracentral lobule	0.126	0.120	[-0.109 - 0.362]	1.077	3.24E-01	7.50E-01	220	101
Left pars opercularis of inferior frontal gyrus	-0.143	0.120	[-0.379 - 0.092]	-1.100	2.63E-01	7.03E-01	221	101
Left pars orbitalis of inferior frontal gyrus	-0.040	0.120	[-0.275 - 0.195]	-0.364	7.54E-01	9.44E-01	221	101
Left pars triangularis of inferior frontal gyrus	-0.037	0.120	[-0.273 - 0.198]	-0.313	7.69E-01	9.49E-01	221	101
Left pericalcarine cortex	-0.313	0.121	[-0.55 - -0.075]	-3.654	1.53E-02	1.83E-01	220	100
Left postcentral gyrus	-0.085	0.120	[-0.32 - 0.151]	-0.690	5.08E-01	8.43E-01	219	101
Left posterior cingulate cortex	-0.160	0.120	[-0.396 - 0.075]	-1.184	2.10E-01	6.62E-01	221	101
Left precentral gyrus	-0.069	0.120	[-0.305 - 0.166]	-0.558	5.88E-01	8.80E-01	220	101
Left precuneus	-0.052	0.120	[-0.288 - 0.183]	-0.382	6.83E-01	9.24E-01	221	101
Left rostral anterior cingulate cortex	-0.115	0.120	[-0.351 - 0.12]	-1.146	3.67E-01	7.82E-01	219	101

Left rostral middle frontal gyrus	-0.079	0.120	[-0.315 - 0.157]	-0.607	5.35E-01	8.53E-01	219	101
Left superior frontal gyrus	-0.089	0.120	[-0.325 - 0.147]	-0.658	4.87E-01	8.42E-01	220	101
Left superior parietal cortex	-0.038	0.120	[-0.274 - 0.197]	-0.299	7.64E-01	9.46E-01	221	101
Left superior temporal gyrus	-0.244	0.121	[-0.482 - -0.006]	-1.724	5.89E-02	3.93E-01	221	99
Left supramarginal gyrus	-0.176	0.120	[-0.412 - 0.06]	-1.292	1.69E-01	6.12E-01	220	101
Left frontal pole	-0.280	0.121	[-0.517 - -0.044]	-3.324	2.88E-02	2.73E-01	221	101
Left temporal pole	-0.011	0.120	[-0.246 - 0.225]	-0.159	9.34E-01	9.89E-01	221	101
Left transverse temporal gyrus	-0.071	0.120	[-0.307 - 0.164]	-0.759	5.78E-01	8.75E-01	220	101
Left insula	-0.297	0.121	[-0.534 - -0.061]	-2.070	2.08E-02	2.25E-01	219	101
Right banks of superior temporal sulcus	-0.207	0.121	[-0.443 - 0.029]	-1.722	1.07E-01	5.22E-01	219	101
Right caudal anterior cingulate cortex	-0.240	0.121	[-0.477 - -0.002]	-2.510	6.28E-02	4.05E-01	220	100
Right caudal middle frontal gyrus	-0.069	0.120	[-0.305 - 0.166]	-0.544	5.89E-01	8.80E-01	220	101
Right cuneus	-0.054	0.120	[-0.289 - 0.182]	-0.499	6.75E-01	9.20E-01	221	101
Right entorhinal cortex	0.003	0.121	[-0.233 - 0.24]	0.052	9.78E-01	9.97E-01	214	101
Right fusiform gyrus	-0.177	0.120	[-0.413 - 0.059]	-1.608	1.68E-01	6.12E-01	220	101
Right inferior parietal cortex	-0.137	0.120	[-0.373 - 0.099]	-1.014	2.83E-01	7.18E-01	220	101
Right inferior temporal gyrus	-0.087	0.120	[-0.323 - 0.148]	-0.970	4.95E-01	8.43E-01	221	101
Right isthmus cingulate cortex	-0.060	0.120	[-0.296 - 0.176]	-0.544	6.39E-01	9.05E-01	220	101
Right lateral occipital cortex	-0.168	0.120	[-0.404 - 0.068]	-1.241	1.89E-01	6.42E-01	221	101
Right lateral orbitofrontal cortex	-0.142	0.120	[-0.378 - 0.094]	-1.172	2.67E-01	7.06E-01	219	101
Right lingual gyrus	-0.057	0.120	[-0.293 - 0.178]	-0.428	6.54E-01	9.13E-01	219	101
Right medial orbitofrontal cortex	-0.157	0.120	[-0.393 - 0.079]	-1.489	2.20E-01	6.71E-01	219	101
Right middle temporal gyrus	-0.070	0.120	[-0.306 - 0.165]	-0.643	5.83E-01	8.78E-01	221	101
Right parahippocampal gyrus	-0.245	0.121	[-0.481 - -0.008]	-2.908	5.65E-02	3.88E-01	220	101
Right paracentral lobule	-0.008	0.120	[-0.244 - 0.228]	-0.066	9.50E-01	9.94E-01	219	101
Right pars opercularis of inferior frontal gyrus	-0.038	0.120	[-0.274 - 0.197]	-0.297	7.65E-01	9.46E-01	221	101
Right pars orbitalis of inferior frontal gyrus	-0.136	0.120	[-0.372 - 0.1]	-1.215	2.88E-01	7.21E-01	221	101
Right pars triangularis of inferior frontal gyrus	-0.264	0.121	[-0.5 - -0.027]	-2.186	3.99E-02	3.29E-01	221	101
Right pericalcarine cortex	0.133	0.120	[-0.103 - 0.369]	1.534	2.99E-01	7.31E-01	220	101
Right postcentral gyrus	-0.112	0.120	[-0.347 - 0.124]	-0.949	3.82E-01	7.87E-01	221	101
Right posterior cingulate cortex	-0.172	0.120	[-0.408 - 0.064]	-1.323	1.80E-01	6.28E-01	220	101

Right precentral gyrus	-0.031	0.120	[-0.267 - 0.205]	-0.251	8.09E-01	9.64E-01	220	101
Right precuneus	-0.147	0.120	[-0.382 - 0.089]	-1.119	2.52E-01	6.93E-01	220	101
Right rostral anterior cingulate cortex	-0.085	0.120	[-0.32 - 0.151]	-0.842	5.06E-01	8.43E-01	221	101
Right rostral middle frontal gyrus	-0.070	0.120	[-0.305 - 0.166]	-0.541	5.86E-01	8.79E-01	220	101
Right superior frontal gyrus	-0.104	0.120	[-0.339 - 0.132]	-0.763	4.18E-01	8.11E-01	220	101
Right superior parietal cortex	0.042	0.120	[-0.193 - 0.278]	0.361	7.42E-01	9.39E-01	221	101
Right superior temporal gyrus	-0.191	0.120	[-0.427 - 0.045]	-1.469	1.36E-01	5.68E-01	221	101
Right supramarginal gyrus	-0.132	0.120	[-0.368 - 0.103]	-0.990	3.00E-01	7.32E-01	221	101
Right frontal pole	0.154	0.120	[-0.082 - 0.39]	1.837	2.28E-01	6.81E-01	221	101
Right temporal pole	-0.061	0.120	[-0.297 - 0.174]	-0.948	6.33E-01	9.00E-01	221	101
Right transverse temporal gyrus	0.033	0.120	[-0.202 - 0.269]	0.361	7.94E-01	9.58E-01	221	101
Right insula	-0.406	0.121	[-0.643 - -0.168]	-2.813	1.67E-03	3.83E-02	220	101
Left hemisphere average thickness	-0.173	0.120	[-0.409 - 0.063]	-0.957	1.78E-01	6.27E-01	220	101
Right hemisphere average thickness	-0.166	0.120	[-0.402 - 0.069]	-0.938	1.94E-01	6.45E-01	220	101

Supplementary Table 47. Effects of atypical antipsychotics on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD Gen2AntiPsych FullMedM)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.027	0.121	[-0.264 - 0.209]	-0.477	8.33E-01	9.72E-01	218	100
Left caudal anterior cingulate cortex	0.034	0.120	[-0.202 - 0.269]	0.742	7.94E-01	9.58E-01	219	101
Left caudal middle frontal gyrus	0.149	0.120	[-0.087 - 0.385]	2.590	2.47E-01	6.91E-01	220	101
Left cuneus	0.287	0.121	[0.05 - 0.524]	4.681	2.68E-02	2.63E-01	219	101
Left entorhinal cortex	-0.136	0.121	[-0.372 - 0.101]	-2.928	2.96E-01	7.26E-01	215	101
Left fusiform gyrus	-0.183	0.120	[-0.419 - 0.053]	-2.712	1.56E-01	5.95E-01	220	101
Left inferior parietal cortex	-0.027	0.120	[-0.263 - 0.208]	-0.408	8.32E-01	9.72E-01	219	101
Left inferior temporal gyrus	-0.185	0.120	[-0.421 - 0.051]	-3.187	1.52E-01	5.89E-01	220	101
Left isthmus cingulate cortex	0.004	0.120	[-0.232 - 0.239]	0.070	9.77E-01	9.97E-01	220	101
Left lateral occipital cortex	0.116	0.120	[-0.12 - 0.352]	1.608	3.68E-01	7.82E-01	220	101
Left lateral orbitofrontal cortex	-0.028	0.120	[-0.264 - 0.208]	-0.365	8.30E-01	9.72E-01	218	101
Left lingual gyrus	0.044	0.120	[-0.192 - 0.28]	0.663	7.34E-01	9.37E-01	219	101
Left medial orbitofrontal cortex	0.078	0.120	[-0.158 - 0.314]	1.158	5.44E-01	8.57E-01	218	101
Left middle temporal gyrus	0.114	0.121	[-0.123 - 0.35]	1.688	3.79E-01	7.85E-01	220	100
Left parahippocampal gyrus	-0.049	0.120	[-0.286 - 0.187]	-0.791	7.02E-01	9.26E-01	217	101
Left paracentral lobule	0.109	0.120	[-0.127 - 0.345]	1.639	3.97E-01	7.98E-01	219	101
Left pars opercularis of inferior frontal gyrus	-0.131	0.121	[-0.368 - 0.106]	-2.158	3.11E-01	7.41E-01	220	100
Left pars orbitalis of inferior frontal gyrus	-0.041	0.120	[-0.277 - 0.195]	-0.590	7.50E-01	9.42E-01	220	101
Left pars triangularis of inferior frontal gyrus	-0.043	0.120	[-0.279 - 0.193]	-0.683	7.40E-01	9.38E-01	219	101
Left pericalcarine cortex	0.274	0.121	[0.037 - 0.512]	5.017	3.46E-02	3.06E-01	220	100
Left postcentral gyrus	0.003	0.120	[-0.233 - 0.239]	0.042	9.79E-01	9.97E-01	218	101
Left posterior cingulate cortex	-0.051	0.121	[-0.288 - 0.185]	-0.861	6.91E-01	9.26E-01	220	100
Left precentral gyrus	-0.026	0.120	[-0.262 - 0.209]	-0.326	8.38E-01	9.73E-01	219	101
Left precuneus	-0.039	0.120	[-0.275 - 0.196]	-0.517	7.61E-01	9.46E-01	220	101
Left rostral anterior cingulate cortex	0.002	0.120	[-0.234 - 0.238]	0.045	9.87E-01	9.97E-01	219	101

Left rostral middle frontal gyrus	-0.051	0.120	[-0.287 - 0.185]	-0.755	6.91E-01	9.26E-01	218	101
Left superior frontal gyrus	0.054	0.120	[-0.181 - 0.29]	0.690	6.73E-01	9.20E-01	219	101
Left superior parietal cortex	0.074	0.120	[-0.162 - 0.309]	0.938	5.68E-01	8.72E-01	220	101
Left superior temporal gyrus	0.002	0.121	[-0.236 - 0.239]	0.020	9.90E-01	9.97E-01	219	99
Left supramarginal gyrus	-0.100	0.120	[-0.336 - 0.136]	-1.523	4.40E-01	8.23E-01	218	101
Left frontal pole	0.102	0.120	[-0.134 - 0.338]	1.809	4.29E-01	8.21E-01	220	101
Left temporal pole	0.049	0.120	[-0.187 - 0.284]	0.758	7.06E-01	9.26E-01	220	101
Left transverse temporal gyrus	-0.179	0.120	[-0.415 - 0.057]	-3.100	1.65E-01	6.07E-01	220	101
Left insula	-0.138	0.120	[-0.374 - 0.098]	-1.812	2.86E-01	7.19E-01	218	101
Right banks of superior temporal sulcus	-0.161	0.121	[-0.397 - 0.076]	-2.998	2.14E-01	6.66E-01	218	101
Right caudal anterior cingulate cortex	0.046	0.121	[-0.19 - 0.282]	1.012	7.22E-01	9.34E-01	220	100
Right caudal middle frontal gyrus	0.063	0.120	[-0.173 - 0.299]	1.169	6.24E-01	8.95E-01	219	101
Right cuneus	-0.011	0.120	[-0.247 - 0.225]	-0.169	9.32E-01	9.89E-01	220	101
Right entorhinal cortex	0.048	0.121	[-0.189 - 0.285]	1.134	7.12E-01	9.30E-01	213	101
Right fusiform gyrus	-0.158	0.120	[-0.394 - 0.078]	-2.312	2.21E-01	6.73E-01	219	101
Right inferior parietal cortex	-0.128	0.120	[-0.364 - 0.108]	-1.929	3.20E-01	7.46E-01	219	101
Right inferior temporal gyrus	-0.214	0.120	[-0.451 - 0.022]	-3.694	9.69E-02	5.04E-01	220	101
Right isthmus cingulate cortex	0.029	0.120	[-0.206 - 0.265]	0.532	8.20E-01	9.68E-01	220	101
Right lateral occipital cortex	0.272	0.121	[0.035 - 0.509]	3.833	3.57E-02	3.10E-01	219	101
Right lateral orbitofrontal cortex	0.087	0.120	[-0.149 - 0.323]	1.186	4.99E-01	8.43E-01	218	101
Right lingual gyrus	-0.066	0.120	[-0.302 - 0.17]	-0.976	6.10E-01	8.88E-01	219	101
Right medial orbitofrontal cortex	0.006	0.120	[-0.23 - 0.242]	0.082	9.63E-01	9.96E-01	218	101
Right middle temporal gyrus	0.067	0.120	[-0.169 - 0.303]	1.031	6.04E-01	8.86E-01	220	101
Right parahippocampal gyrus	0.123	0.120	[-0.113 - 0.359]	1.899	3.40E-01	7.65E-01	219	101
Right paracentral lobule	0.027	0.120	[-0.209 - 0.263]	0.435	8.32E-01	9.72E-01	218	101
Right pars opercularis of inferior frontal gyrus	-0.166	0.121	[-0.404 - 0.072]	-2.829	2.02E-01	6.58E-01	219	99
Right pars orbitalis of inferior frontal gyrus	0.040	0.120	[-0.196 - 0.276]	0.568	7.57E-01	9.44E-01	220	101
Right pars triangularis of inferior frontal gyrus	-0.105	0.120	[-0.341 - 0.131]	-1.816	4.16E-01	8.10E-01	218	101
Right pericalcarine cortex	0.076	0.120	[-0.159 - 0.312]	1.408	5.53E-01	8.63E-01	220	101
Right postcentral gyrus	-0.095	0.120	[-0.332 - 0.141]	-1.231	4.59E-01	8.33E-01	218	101
Right posterior cingulate cortex	0.023	0.120	[-0.213 - 0.258]	0.374	8.60E-01	9.80E-01	220	101

Right precentral gyrus	-0.092	0.120	[-0.327 - 0.144]	-1.137	4.77E-01	8.38E-01	220	101
Right precuneus	0.049	0.120	[-0.187 - 0.285]	0.651	7.05E-01	9.26E-01	219	101
Right rostral anterior cingulate cortex	0.134	0.121	[-0.103 - 0.37]	2.955	3.01E-01	7.33E-01	220	100
Right rostral middle frontal gyrus	0.168	0.121	[-0.069 - 0.404]	2.523	1.95E-01	6.45E-01	218	101
Right superior frontal gyrus	-0.120	0.120	[-0.356 - 0.116]	-1.590	3.51E-01	7.74E-01	219	101
Right superior parietal cortex	-0.020	0.120	[-0.255 - 0.216]	-0.242	8.79E-01	9.82E-01	220	101
Right superior temporal gyrus	-0.055	0.120	[-0.291 - 0.18]	-0.683	6.68E-01	9.19E-01	220	101
Right supramarginal gyrus	-0.118	0.120	[-0.354 - 0.118]	-1.810	3.61E-01	7.78E-01	219	101
Right frontal pole	-0.063	0.120	[-0.299 - 0.172]	-1.089	6.24E-01	8.95E-01	220	101
Right temporal pole	0.244	0.121	[0.007 - 0.48]	3.863	5.94E-02	3.94E-01	220	101
Right transverse temporal gyrus	-0.175	0.120	[-0.411 - 0.061]	-3.188	1.75E-01	6.21E-01	220	101
Right insula	-0.121	0.120	[-0.357 - 0.115]	-1.666	3.50E-01	7.73E-01	219	101
Left hemisphere total surface area	0.006	0.122	[-0.234 - 0.246]	0.062	9.65E-01	9.96E-01	214	97
Right hemisphere total surface area	-0.023	0.122	[-0.263 - 0.217]	-0.248	8.62E-01	9.81E-01	214	97

Supplementary Table 48. Effects of antidepressants on cortical thickness in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD AntiDep FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.276	0.128	[0.025 - 0.527]	2.236	4.29E-02	3.36E-01	235	83
Left caudal anterior cingulate cortex	0.144	0.128	[-0.106 - 0.395]	1.522	2.88E-01	7.21E-01	236	83
Left caudal middle frontal gyrus	0.053	0.128	[-0.197 - 0.303]	0.416	6.94E-01	9.26E-01	237	83
Left cuneus	-0.223	0.128	[-0.473 - 0.028]	-2.093	1.01E-01	5.11E-01	237	83
Left entorhinal cortex	-0.235	0.128	[-0.486 - 0.016]	-3.211	8.48E-02	4.73E-01	233	83
Left fusiform gyrus	0.026	0.127	[-0.224 - 0.275]	0.229	8.50E-01	9.77E-01	238	83
Left inferior parietal cortex	0.127	0.128	[-0.123 - 0.377]	0.905	3.48E-01	7.73E-01	238	83
Left inferior temporal gyrus	0.052	0.127	[-0.198 - 0.302]	0.544	7.00E-01	9.26E-01	238	83
Left isthmus cingulate cortex	0.045	0.127	[-0.205 - 0.295]	0.405	7.40E-01	9.38E-01	238	83
Left lateral occipital cortex	0.176	0.128	[-0.074 - 0.426]	1.242	1.94E-01	6.45E-01	237	83
Left lateral orbitofrontal cortex	0.028	0.128	[-0.222 - 0.278]	0.227	8.35E-01	9.73E-01	236	83
Left lingual gyrus	-0.146	0.128	[-0.396 - 0.105]	-1.092	2.83E-01	7.18E-01	238	83
Left medial orbitofrontal cortex	-0.007	0.128	[-0.258 - 0.243]	-0.072	9.56E-01	9.95E-01	236	83
Left middle temporal gyrus	0.052	0.128	[-0.198 - 0.302]	0.400	7.02E-01	9.26E-01	237	83
Left parahippocampal gyrus	0.211	0.128	[-0.039 - 0.462]	2.634	1.20E-01	5.48E-01	235	83
Left paracentral lobule	0.124	0.128	[-0.126 - 0.375]	1.060	3.59E-01	7.78E-01	237	83
Left pars opercularis of inferior frontal gyrus	0.196	0.128	[-0.054 - 0.446]	1.504	1.49E-01	5.85E-01	238	83
Left pars orbitalis of inferior frontal gyrus	0.225	0.128	[-0.025 - 0.476]	2.049	9.69E-02	5.04E-01	238	83
Left pars triangularis of inferior frontal gyrus	0.349	0.128	[0.098 - 0.601]	2.918	1.03E-02	1.41E-01	238	83
Left pericalcarine cortex	-0.242	0.128	[-0.493 - 0.009]	-2.823	7.55E-02	4.43E-01	236	83
Left postcentral gyrus	-0.008	0.128	[-0.258 - 0.242]	-0.064	9.54E-01	9.95E-01	237	83
Left posterior cingulate cortex	0.270	0.128	[0.019 - 0.521]	1.992	4.70E-02	3.53E-01	238	83
Left precentral gyrus	0.049	0.128	[-0.201 - 0.299]	0.392	7.19E-01	9.32E-01	237	83
Left precuneus	0.091	0.128	[-0.159 - 0.341]	0.663	5.03E-01	8.43E-01	238	83
Left rostral anterior cingulate cortex	-0.090	0.128	[-0.34 - 0.16]	-0.892	5.08E-01	8.43E-01	236	83

Left rostral middle frontal gyrus	0.173	0.128	[-0.077 - 0.423]	1.323	2.03E-01	6.58E-01	237	83
Left superior frontal gyrus	0.194	0.128	[-0.056 - 0.445]	1.438	1.52E-01	5.89E-01	237	83
Left superior parietal cortex	0.125	0.128	[-0.125 - 0.375]	0.974	3.56E-01	7.77E-01	238	83
Left superior temporal gyrus	0.301	0.128	[0.05 - 0.552]	2.130	2.70E-02	2.64E-01	236	83
Left supramarginal gyrus	0.157	0.128	[-0.093 - 0.407]	1.153	2.47E-01	6.91E-01	237	83
Left frontal pole	0.076	0.128	[-0.174 - 0.326]	0.901	5.75E-01	8.75E-01	238	83
Left temporal pole	0.100	0.128	[-0.15 - 0.35]	1.499	4.62E-01	8.33E-01	238	83
Left transverse temporal gyrus	0.127	0.128	[-0.123 - 0.377]	1.357	3.48E-01	7.73E-01	237	83
Left insula	0.222	0.128	[-0.029 - 0.473]	1.544	1.03E-01	5.15E-01	236	83
Right banks of superior temporal sulcus	0.243	0.128	[-0.008 - 0.494]	2.022	7.39E-02	4.40E-01	236	83
Right caudal anterior cingulate cortex	0.298	0.128	[0.046 - 0.549]	3.117	2.89E-02	2.73E-01	236	83
Right caudal middle frontal gyrus	0.116	0.128	[-0.135 - 0.366]	0.910	3.94E-01	7.96E-01	237	83
Right cuneus	-0.196	0.128	[-0.447 - 0.054]	-1.827	1.48E-01	5.85E-01	238	83
Right entorhinal cortex	-0.078	0.128	[-0.329 - 0.173]	-1.158	5.66E-01	8.71E-01	231	83
Right fusiform gyrus	-0.024	0.128	[-0.274 - 0.226]	-0.219	8.59E-01	9.79E-01	237	83
Right inferior parietal cortex	0.106	0.128	[-0.144 - 0.356]	0.787	4.33E-01	8.22E-01	238	83
Right inferior temporal gyrus	-0.060	0.127	[-0.31 - 0.19]	-0.669	6.57E-01	9.13E-01	238	83
Right isthmus cingulate cortex	0.187	0.128	[-0.063 - 0.438]	1.700	1.68E-01	6.11E-01	237	83
Right lateral occipital cortex	0.023	0.127	[-0.227 - 0.273]	0.172	8.63E-01	9.81E-01	238	83
Right lateral orbitofrontal cortex	0.098	0.128	[-0.152 - 0.349]	0.810	4.69E-01	8.34E-01	236	83
Right lingual gyrus	-0.053	0.128	[-0.303 - 0.197]	-0.393	6.97E-01	9.26E-01	236	83
Right medial orbitofrontal cortex	-0.084	0.128	[-0.334 - 0.167]	-0.791	5.38E-01	8.53E-01	236	83
Right middle temporal gyrus	0.003	0.127	[-0.247 - 0.253]	0.029	9.82E-01	9.97E-01	238	83
Right parahippocampal gyrus	0.127	0.128	[-0.123 - 0.377]	1.510	3.49E-01	7.73E-01	237	83
Right paracentral lobule	0.107	0.128	[-0.144 - 0.357]	0.886	4.32E-01	8.22E-01	237	83
Right pars opercularis of inferior frontal gyrus	0.154	0.128	[-0.096 - 0.404]	1.193	2.57E-01	6.98E-01	238	83
Right pars orbitalis of inferior frontal gyrus	0.148	0.128	[-0.103 - 0.398]	1.318	2.76E-01	7.13E-01	238	83
Right pars triangularis of inferior frontal gyrus	0.276	0.128	[0.025 - 0.527]	2.290	4.22E-02	3.35E-01	238	83
Right pericalcarine cortex	-0.345	0.128	[-0.596 - -0.093]	-3.979	1.14E-02	1.50E-01	237	83
Right postcentral gyrus	-0.082	0.128	[-0.332 - 0.168]	-0.696	5.45E-01	8.59E-01	238	83
Right posterior cingulate cortex	0.206	0.128	[-0.044 - 0.457]	1.588	1.29E-01	5.60E-01	237	83

Right precentral gyrus	0.006	0.128	[-0.244 - 0.256]	0.049	9.64E-01	9.96E-01	237	83
Right precuneus	-0.002	0.128	[-0.252 - 0.248]	-0.013	9.90E-01	9.97E-01	237	83
Right rostral anterior cingulate cortex	0.133	0.128	[-0.117 - 0.383]	1.320	3.26E-01	7.53E-01	238	83
Right rostral middle frontal gyrus	0.215	0.128	[-0.036 - 0.465]	1.670	1.13E-01	5.38E-01	237	83
Right superior frontal gyrus	0.183	0.128	[-0.067 - 0.434]	1.349	1.77E-01	6.26E-01	237	83
Right superior parietal cortex	-0.023	0.127	[-0.273 - 0.227]	-0.200	8.63E-01	9.81E-01	238	83
Right superior temporal gyrus	0.046	0.127	[-0.204 - 0.295]	0.350	7.37E-01	9.37E-01	238	83
Right supramarginal gyrus	0.087	0.128	[-0.163 - 0.337]	0.652	5.20E-01	8.47E-01	238	83
Right frontal pole	0.138	0.128	[-0.112 - 0.388]	1.640	3.10E-01	7.40E-01	238	83
Right temporal pole	0.052	0.127	[-0.197 - 0.302]	0.815	6.99E-01	9.26E-01	238	83
Right transverse temporal gyrus	0.272	0.128	[0.022 - 0.523]	2.945	4.51E-02	3.45E-01	238	83
Right insula	0.296	0.128	[0.045 - 0.547]	2.053	2.96E-02	2.75E-01	237	83
Left hemisphere average thickness	0.151	0.128	[-0.099 - 0.401]	0.838	2.65E-01	7.04E-01	237	83
Right hemisphere average thickness	0.099	0.128	[-0.151 - 0.349]	0.560	4.64E-01	8.33E-01	237	83

Supplementary Table 49. Effects of antidepressants on cortical surface area in adolescents <25 years old (all BD patients, controlling for all other medications)

	Cohen's d (Adols BD AntiDep FullMedModel)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.006	0.128	[-0.257 - 0.244]	-0.109	9.64E-01	9.96E-01	234	83
Left caudal anterior cingulate cortex	0.010	0.128	[-0.24 - 0.26]	0.228	9.40E-01	9.92E-01	236	83
Left caudal middle frontal gyrus	-0.180	0.128	[-0.431 - 0.07]	-3.129	1.87E-01	6.41E-01	237	83
Left cuneus	-0.270	0.128	[-0.521 - -0.019]	-4.409	4.87E-02	3.63E-01	236	83
Left entorhinal cortex	0.133	0.128	[-0.118 - 0.384]	2.865	3.33E-01	7.58E-01	232	83
Left fusiform gyrus	-0.208	0.128	[-0.458 - 0.043]	-3.076	1.29E-01	5.60E-01	237	83
Left inferior parietal cortex	0.052	0.128	[-0.198 - 0.302]	0.779	7.03E-01	9.26E-01	236	83
Left inferior temporal gyrus	-0.049	0.128	[-0.299 - 0.201]	-0.850	7.18E-01	9.31E-01	237	83
Left isthmus cingulate cortex	-0.034	0.128	[-0.284 - 0.216]	-0.630	8.04E-01	9.62E-01	237	83
Left lateral occipital cortex	-0.181	0.128	[-0.432 - 0.069]	-2.511	1.85E-01	6.38E-01	237	83
Left lateral orbitofrontal cortex	-0.109	0.128	[-0.36 - 0.141]	-1.441	4.23E-01	8.15E-01	235	83
Left lingual gyrus	-0.114	0.128	[-0.364 - 0.137]	-1.719	4.05E-01	8.01E-01	236	83
Left medial orbitofrontal cortex	0.144	0.128	[-0.107 - 0.394]	2.129	2.93E-01	7.23E-01	235	83
Left middle temporal gyrus	-0.071	0.128	[-0.321 - 0.179]	-1.057	6.02E-01	8.86E-01	236	83
Left parahippocampal gyrus	-0.116	0.128	[-0.366 - 0.135]	-1.853	3.97E-01	7.98E-01	234	83
Left paracentral lobule	-0.025	0.128	[-0.275 - 0.225]	-0.379	8.53E-01	9.78E-01	236	83
Left pars opercularis of inferior frontal gyrus	0.015	0.128	[-0.235 - 0.265]	0.252	9.11E-01	9.83E-01	236	83
Left pars orbitalis of inferior frontal gyrus	0.155	0.128	[-0.095 - 0.405]	2.232	2.57E-01	6.98E-01	237	83
Left pars triangularis of inferior frontal gyrus	-0.100	0.128	[-0.35 - 0.15]	-1.598	4.64E-01	8.33E-01	236	83
Left pericalcarine cortex	-0.231	0.128	[-0.482 - 0.019]	-4.233	9.10E-02	4.87E-01	236	83
Left postcentral gyrus	0.038	0.128	[-0.213 - 0.288]	0.472	7.83E-01	9.56E-01	235	83
Left posterior cingulate cortex	0.084	0.128	[-0.166 - 0.334]	1.409	5.38E-01	8.53E-01	236	83
Left precentral gyrus	0.055	0.128	[-0.195 - 0.305]	0.678	6.88E-01	9.25E-01	236	83
Left precuneus	0.052	0.128	[-0.198 - 0.302]	0.679	7.06E-01	9.26E-01	237	83
Left rostral anterior cingulate cortex	0.041	0.128	[-0.209 - 0.291]	0.859	7.64E-01	9.46E-01	236	83

Left rostral middle frontal gyrus	-0.052	0.128	[-0.302 - 0.198]	-0.763	7.04E-01	9.26E-01	236	83
Left superior frontal gyrus	-0.076	0.128	[-0.327 - 0.174]	-0.971	5.76E-01	8.75E-01	236	83
Left superior parietal cortex	-0.166	0.128	[-0.416 - 0.084]	-2.116	2.24E-01	6.79E-01	237	83
Left superior temporal gyrus	-0.012	0.128	[-0.262 - 0.238]	-0.152	9.30E-01	9.89E-01	234	83
Left supramarginal gyrus	-0.020	0.128	[-0.27 - 0.23]	-0.306	8.83E-01	9.82E-01	235	83
Left frontal pole	0.068	0.128	[-0.182 - 0.318]	1.213	6.17E-01	8.92E-01	237	83
Left temporal pole	-0.022	0.128	[-0.272 - 0.228]	-0.343	8.72E-01	9.82E-01	237	83
Left transverse temporal gyrus	0.012	0.128	[-0.238 - 0.262]	0.212	9.28E-01	9.89E-01	237	83
Left insula	0.069	0.128	[-0.182 - 0.319]	0.902	6.16E-01	8.92E-01	235	83
Right banks of superior temporal sulcus	-0.014	0.128	[-0.264 - 0.236]	-0.262	9.18E-01	9.83E-01	235	83
Right caudal anterior cingulate cortex	-0.005	0.128	[-0.255 - 0.245]	-0.115	9.69E-01	9.97E-01	236	83
Right caudal middle frontal gyrus	-0.038	0.128	[-0.288 - 0.212]	-0.706	7.80E-01	9.55E-01	236	83
Right cuneus	-0.171	0.128	[-0.422 - 0.079]	-2.629	2.10E-01	6.62E-01	237	83
Right entorhinal cortex	-0.009	0.128	[-0.26 - 0.242]	-0.206	9.49E-01	9.94E-01	230	83
Right fusiform gyrus	-0.041	0.128	[-0.291 - 0.209]	-0.603	7.63E-01	9.46E-01	236	83
Right inferior parietal cortex	0.062	0.128	[-0.188 - 0.312]	0.928	6.52E-01	9.12E-01	237	83
Right inferior temporal gyrus	0.079	0.128	[-0.171 - 0.33]	1.369	5.61E-01	8.68E-01	237	83
Right isthmus cingulate cortex	-0.071	0.128	[-0.321 - 0.179]	-1.295	6.02E-01	8.86E-01	237	83
Right lateral occipital cortex	-0.216	0.128	[-0.467 - 0.034]	-3.048	1.14E-01	5.40E-01	236	83
Right lateral orbitofrontal cortex	0.020	0.128	[-0.231 - 0.27]	0.267	8.86E-01	9.82E-01	235	83
Right lingual gyrus	-0.117	0.128	[-0.367 - 0.133]	-1.734	3.92E-01	7.95E-01	236	83
Right medial orbitofrontal cortex	-0.012	0.128	[-0.262 - 0.238]	-0.166	9.29E-01	9.89E-01	235	83
Right middle temporal gyrus	-0.216	0.128	[-0.467 - 0.034]	-3.336	1.13E-01	5.38E-01	237	83
Right parahippocampal gyrus	-0.310	0.128	[-0.562 - -0.059]	-4.785	2.37E-02	2.46E-01	236	83
Right paracentral lobule	0.061	0.128	[-0.189 - 0.311]	0.973	6.55E-01	9.13E-01	236	83
Right pars opercularis of inferior frontal gyrus	0.116	0.128	[-0.135 - 0.366]	1.970	3.99E-01	7.98E-01	234	83
Right pars orbitalis of inferior frontal gyrus	0.057	0.128	[-0.193 - 0.307]	0.816	6.74E-01	9.20E-01	237	83
Right pars triangularis of inferior frontal gyrus	-0.102	0.128	[-0.353 - 0.148]	-1.771	4.54E-01	8.30E-01	235	83
Right pericalcarine cortex	-0.211	0.128	[-0.462 - 0.039]	-3.889	1.22E-01	5.53E-01	237	83
Right postcentral gyrus	0.010	0.128	[-0.24 - 0.26]	0.127	9.43E-01	9.92E-01	236	83
Right posterior cingulate cortex	-0.052	0.128	[-0.302 - 0.198]	-0.851	7.04E-01	9.26E-01	237	83

Right precentral gyrus	0.080	0.128	[-0.17 - 0.33]	0.991	5.58E-01	8.67E-01	237	83
Right precuneus	-0.135	0.128	[-0.385 - 0.115]	-1.800	3.24E-01	7.50E-01	236	83
Right rostral anterior cingulate cortex	0.119	0.128	[-0.132 - 0.369]	2.621	3.86E-01	7.87E-01	236	83
Right rostral middle frontal gyrus	-0.124	0.128	[-0.375 - 0.126]	-1.869	3.64E-01	7.80E-01	235	83
Right superior frontal gyrus	-0.093	0.128	[-0.343 - 0.157]	-1.228	4.96E-01	8.43E-01	236	83
Right superior parietal cortex	-0.029	0.128	[-0.279 - 0.221]	-0.354	8.34E-01	9.73E-01	237	83
Right superior temporal gyrus	-0.025	0.128	[-0.275 - 0.225]	-0.315	8.52E-01	9.78E-01	237	83
Right supramarginal gyrus	0.011	0.128	[-0.239 - 0.261]	0.174	9.34E-01	9.89E-01	236	83
Right frontal pole	0.097	0.128	[-0.153 - 0.347]	1.675	4.77E-01	8.38E-01	237	83
Right temporal pole	-0.068	0.128	[-0.318 - 0.182]	-1.074	6.20E-01	8.94E-01	237	83
Right transverse temporal gyrus	-0.171	0.128	[-0.422 - 0.079]	-3.123	2.10E-01	6.62E-01	237	83
Right insula	0.032	0.128	[-0.219 - 0.282]	0.436	8.17E-01	9.67E-01	236	83
Left hemisphere total surface area	-0.015	0.129	[-0.268 - 0.239]	-0.157	9.16E-01	9.83E-01	229	81
Right hemisphere total surface area	-0.012	0.129	[-0.265 - 0.241]	-0.131	9.31E-01	9.89E-01	229	81

Supplementary Table 50. Effects of a history of psychosis on cortical thickness in adolescents <25 years old

	Cohen's d (Adol Psy vs NoPsy)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.002	0.129	[-0.251 - 0.255]	0.016	9.89E-01	9.97E-01	143	103
Left caudal anterior cingulate cortex	-0.158	0.129	[-0.412 - 0.095]	-1.670	2.50E-01	6.93E-01	143	103
Left caudal middle frontal gyrus	0.076	0.129	[-0.176 - 0.329]	0.596	5.77E-01	8.75E-01	143	104
Left cuneus	-0.002	0.129	[-0.255 - 0.25]	-0.023	9.86E-01	9.97E-01	143	104
Left entorhinal cortex	-0.070	0.129	[-0.323 - 0.183]	-0.957	6.10E-01	8.88E-01	143	104
Left fusiform gyrus	0.027	0.129	[-0.225 - 0.28]	0.245	8.41E-01	9.74E-01	143	104
Left inferior parietal cortex	-0.023	0.129	[-0.275 - 0.23]	-0.161	8.69E-01	9.81E-01	143	104
Left inferior temporal gyrus	0.067	0.129	[-0.185 - 0.32]	0.700	6.24E-01	8.95E-01	143	104
Left isthmus cingulate cortex	-0.110	0.129	[-0.363 - 0.143]	-0.993	4.22E-01	8.14E-01	143	104
Left lateral occipital cortex	0.067	0.129	[-0.186 - 0.32]	0.475	6.24E-01	8.95E-01	142	104
Left lateral orbitofrontal cortex	-0.023	0.129	[-0.276 - 0.23]	-0.183	8.69E-01	9.81E-01	142	104
Left lingual gyrus	0.187	0.129	[-0.066 - 0.44]	1.403	1.73E-01	6.18E-01	143	104
Left medial orbitofrontal cortex	-0.198	0.129	[-0.451 - 0.056]	-1.905	1.50E-01	5.88E-01	142	104
Left middle temporal gyrus	-0.125	0.129	[-0.379 - 0.128]	-0.962	3.63E-01	7.80E-01	143	103
Left parahippocampal gyrus	-0.262	0.129	[-0.515 - -0.008]	-3.260	5.73E-02	3.91E-01	143	104
Left paracentral lobule	0.146	0.129	[-0.107 - 0.399]	1.242	2.88E-01	7.21E-01	143	104
Left pars opercularis of inferior frontal gyrus	-0.050	0.129	[-0.303 - 0.202]	-0.387	7.13E-01	9.30E-01	143	104
Left pars orbitalis of inferior frontal gyrus	-0.088	0.129	[-0.341 - 0.165]	-0.799	5.21E-01	8.47E-01	143	104
Left pars triangularis of inferior frontal gyrus	-0.082	0.129	[-0.335 - 0.17]	-0.687	5.48E-01	8.61E-01	143	104
Left pericalcarine cortex	0.127	0.129	[-0.127 - 0.38]	1.478	3.57E-01	7.78E-01	142	104
Left postcentral gyrus	0.201	0.130	[-0.054 - 0.455]	1.635	1.46E-01	5.83E-01	142	103
Left posterior cingulate cortex	-0.137	0.129	[-0.39 - 0.116]	-1.013	3.17E-01	7.46E-01	143	104
Left precentral gyrus	0.268	0.130	[0.014 - 0.522]	2.157	5.18E-02	3.77E-01	142	104
Left precuneus	0.142	0.129	[-0.111 - 0.394]	1.034	3.02E-01	7.34E-01	143	104
Left rostral anterior cingulate cortex	-0.266	0.129	[-0.519 - -0.012]	-2.639	5.34E-02	3.79E-01	143	104

Left rostral middle frontal gyrus	-0.065	0.129	[-0.319 - 0.188]	-0.500	6.34E-01	9.02E-01	143	103
Left superior frontal gyrus	-0.041	0.129	[-0.294 - 0.212]	-0.303	7.65E-01	9.46E-01	143	104
Left superior parietal cortex	0.127	0.129	[-0.126 - 0.38]	0.989	3.55E-01	7.77E-01	143	104
Left superior temporal gyrus	-0.074	0.130	[-0.329 - 0.18]	-0.527	5.89E-01	8.80E-01	143	102
Left supramarginal gyrus	0.191	0.129	[-0.062 - 0.445]	1.402	1.65E-01	6.06E-01	142	104
Left frontal pole	0.035	0.129	[-0.218 - 0.287]	0.409	8.01E-01	9.62E-01	143	104
Left temporal pole	-0.045	0.129	[-0.298 - 0.207]	-0.680	7.42E-01	9.39E-01	143	104
Left transverse temporal gyrus	-0.157	0.129	[-0.41 - 0.097]	-1.669	2.55E-01	6.97E-01	143	103
Left insula	-0.097	0.130	[-0.351 - 0.157]	-0.674	4.82E-01	8.40E-01	142	103
Right banks of superior temporal sulcus	-0.153	0.129	[-0.406 - 0.099]	-1.277	2.63E-01	7.03E-01	143	104
Right caudal anterior cingulate cortex	-0.071	0.129	[-0.325 - 0.182]	-0.749	6.03E-01	8.86E-01	143	103
Right caudal middle frontal gyrus	0.027	0.129	[-0.226 - 0.28]	0.216	8.41E-01	9.74E-01	142	104
Right cuneus	0.029	0.129	[-0.224 - 0.282]	0.270	8.32E-01	9.72E-01	143	104
Right entorhinal cortex	0.129	0.129	[-0.124 - 0.383]	1.919	3.47E-01	7.73E-01	143	103
Right fusiform gyrus	0.154	0.129	[-0.1 - 0.408]	1.403	2.63E-01	7.03E-01	143	103
Right inferior parietal cortex	0.137	0.129	[-0.117 - 0.39]	1.012	3.20E-01	7.46E-01	143	103
Right inferior temporal gyrus	0.059	0.129	[-0.193 - 0.312]	0.661	6.64E-01	9.16E-01	143	104
Right isthmus cingulate cortex	-0.268	0.129	[-0.521 - -0.014]	-2.428	5.18E-02	3.77E-01	143	104
Right lateral occipital cortex	-0.091	0.129	[-0.343 - 0.162]	-0.668	5.09E-01	8.43E-01	143	104
Right lateral orbitofrontal cortex	-0.094	0.129	[-0.347 - 0.159]	-0.774	4.94E-01	8.43E-01	142	104
Right lingual gyrus	0.091	0.129	[-0.162 - 0.343]	0.676	5.08E-01	8.43E-01	143	104
Right medial orbitofrontal cortex	-0.143	0.129	[-0.396 - 0.11]	-1.354	2.98E-01	7.28E-01	142	104
Right middle temporal gyrus	-0.032	0.129	[-0.285 - 0.22]	-0.296	8.14E-01	9.66E-01	143	104
Right parahippocampal gyrus	-0.244	0.129	[-0.498 - 0.009]	-2.902	7.57E-02	4.43E-01	143	104
Right paracentral lobule	0.197	0.130	[-0.057 - 0.451]	1.640	1.52E-01	5.89E-01	143	103
Right pars opercularis of inferior frontal gyrus	-0.053	0.129	[-0.306 - 0.199]	-0.413	6.98E-01	9.26E-01	143	104
Right pars orbitalis of inferior frontal gyrus	-0.201	0.129	[-0.454 - 0.052]	-1.795	1.43E-01	5.77E-01	143	104
Right pars triangularis of inferior frontal gyrus	-0.330	0.130	[-0.585 - -0.076]	-2.741	1.66E-02	1.92E-01	143	104
Right pericalcarine cortex	0.196	0.129	[-0.057 - 0.449]	2.260	1.54E-01	5.93E-01	143	104
Right postcentral gyrus	0.016	0.129	[-0.237 - 0.269]	0.136	9.07E-01	9.83E-01	143	104
Right posterior cingulate cortex	-0.071	0.129	[-0.323 - 0.182]	-0.546	6.05E-01	8.88E-01	143	104

Right precentral gyrus	0.207	0.129	[-0.047 - 0.461]	1.679	1.32E-01	5.64E-01	142	104
Right precuneus	0.051	0.129	[-0.202 - 0.304]	0.386	7.13E-01	9.30E-01	142	104
Right rostral anterior cingulate cortex	-0.135	0.129	[-0.388 - 0.118]	-1.337	3.25E-01	7.53E-01	143	104
Right rostral middle frontal gyrus	-0.184	0.129	[-0.437 - 0.069]	-1.430	1.80E-01	6.28E-01	143	104
Right superior frontal gyrus	0.036	0.129	[-0.217 - 0.289]	0.265	7.93E-01	9.58E-01	143	104
Right superior parietal cortex	0.044	0.129	[-0.209 - 0.296]	0.373	7.51E-01	9.42E-01	143	104
Right superior temporal gyrus	-0.149	0.129	[-0.402 - 0.104]	-1.146	2.78E-01	7.13E-01	143	104
Right supramarginal gyrus	-0.054	0.129	[-0.307 - 0.199]	-0.404	6.93E-01	9.26E-01	143	104
Right frontal pole	-0.116	0.129	[-0.369 - 0.137]	-1.382	3.98E-01	7.98E-01	143	104
Right temporal pole	-0.012	0.129	[-0.264 - 0.241]	-0.181	9.32E-01	9.89E-01	143	104
Right transverse temporal gyrus	-0.039	0.129	[-0.292 - 0.214]	-0.422	7.76E-01	9.52E-01	143	104
Right insula	-0.299	0.130	[-0.553 - -0.044]	-2.072	3.06E-02	2.82E-01	143	103
Left hemisphere average thickness	0.007	0.130	[-0.247 - 0.261]	0.040	9.58E-01	9.95E-01	143	102
Right hemisphere average thickness	-0.031	0.130	[-0.285 - 0.223]	-0.173	8.24E-01	9.70E-01	143	102

Supplementary Table 51. Effects a history of psychosis on cortical surface area in adolescents <25 years old

	Cohen's d (Adol Psy vs NoPsy)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.076	0.130	[-0.178 - 0.33]	1.333	5.84E-01	8.78E-01	619	764
Left caudal anterior cingulate cortex	-0.093	0.129	[-0.347 - 0.16]	-2.053	5.02E-01	8.43E-01	619	767
Left caudal middle frontal gyrus	-0.223	0.130	[-0.477 - 0.031]	-3.869	1.09E-01	5.29E-01	619	768
Left cuneus	0.024	0.129	[-0.229 - 0.277]	0.390	8.63E-01	9.81E-01	618	768
Left entorhinal cortex	-0.132	0.129	[-0.386 - 0.121]	-2.857	3.41E-01	7.67E-01	612	760
Left fusiform gyrus	-0.272	0.130	[-0.527 - -0.018]	-4.032	5.07E-02	3.72E-01	618	767
Left inferior parietal cortex	-0.114	0.129	[-0.368 - 0.139]	-1.708	4.11E-01	8.04E-01	618	766
Left inferior temporal gyrus	-0.489	0.131	[-0.746 - -0.232]	-8.419	5.13E-04	1.50E-02	616	762
Left isthmus cingulate cortex	0.023	0.129	[-0.23 - 0.276]	0.428	8.69E-01	9.81E-01	618	768
Left lateral occipital cortex	-0.162	0.129	[-0.416 - 0.092]	-2.246	2.43E-01	6.91E-01	617	766
Left lateral orbitofrontal cortex	-0.002	0.129	[-0.256 - 0.251]	-0.032	9.86E-01	9.97E-01	618	766
Left lingual gyrus	-0.204	0.130	[-0.458 - 0.05]	-3.084	1.42E-01	5.75E-01	619	767
Left medial orbitofrontal cortex	-0.160	0.130	[-0.414 - 0.094]	-2.363	2.51E-01	6.93E-01	615	763
Left middle temporal gyrus	-0.138	0.130	[-0.392 - 0.116]	-2.048	3.22E-01	7.47E-01	619	762
Left parahippocampal gyrus	0.004	0.129	[-0.249 - 0.257]	0.061	9.78E-01	9.97E-01	617	761
Left paracentral lobule	-0.116	0.129	[-0.369 - 0.138]	-1.738	4.04E-01	8.01E-01	619	768
Left pars opercularis of inferior frontal gyrus	0.034	0.129	[-0.219 - 0.288]	0.567	8.04E-01	9.62E-01	619	768
Left pars orbitalis of inferior frontal gyrus	-0.154	0.129	[-0.408 - 0.099]	-2.223	2.67E-01	7.05E-01	619	768
Left pars triangularis of inferior frontal gyrus	0.274	0.130	[0.02 - 0.529]	4.382	4.90E-02	3.63E-01	619	768
Left pericalcarine cortex	-0.097	0.129	[-0.35 - 0.157]	-1.767	4.87E-01	8.42E-01	618	766
Left postcentral gyrus	0.059	0.129	[-0.195 - 0.312]	0.735	6.73E-01	9.20E-01	614	767
Left posterior cingulate cortex	-0.059	0.130	[-0.313 - 0.195]	-0.990	6.71E-01	9.20E-01	619	767
Left precentral gyrus	-0.060	0.129	[-0.314 - 0.194]	-0.740	6.67E-01	9.19E-01	615	768
Left precuneus	-0.179	0.129	[-0.433 - 0.075]	-2.358	1.98E-01	6.52E-01	619	768
Left rostral anterior cingulate cortex	0.083	0.129	[-0.17 - 0.337]	1.742	5.49E-01	8.61E-01	619	766

Left rostral middle frontal gyrus	-0.068	0.130	[-0.322 - 0.186]	-1.006	6.23E-01	8.95E-01	619	768
Left superior frontal gyrus	-0.165	0.129	[-0.418 - 0.089]	-2.093	2.36E-01	6.88E-01	619	766
Left superior parietal cortex	-0.164	0.129	[-0.418 - 0.09]	-2.089	2.38E-01	6.89E-01	618	768
Left superior temporal gyrus	-0.108	0.130	[-0.363 - 0.147]	-1.365	4.39E-01	8.23E-01	614	766
Left supramarginal gyrus	-0.359	0.130	[-0.615 - -0.104]	-5.489	1.03E-02	1.41E-01	619	768
Left frontal pole	-0.248	0.130	[-0.502 - 0.007]	-4.399	7.53E-02	4.43E-01	619	767
Left temporal pole	-0.069	0.129	[-0.322 - 0.184]	-1.079	6.18E-01	8.93E-01	607	763
Left transverse temporal gyrus	-0.081	0.129	[-0.334 - 0.173]	-1.398	5.61E-01	8.68E-01	619	768
Left insula	0.093	0.129	[-0.161 - 0.347]	1.220	5.05E-01	8.43E-01	619	766
Right banks of superior temporal sulcus	-0.195	0.130	[-0.449 - 0.059]	-3.635	1.62E-01	6.01E-01	619	768
Right caudal anterior cingulate cortex	-0.433	0.131	[-0.689 - -0.177]	-9.507	2.04E-03	4.50E-02	619	766
Right caudal middle frontal gyrus	0.022	0.129	[-0.232 - 0.276]	0.404	8.75E-01	9.82E-01	618	768
Right cuneus	-0.144	0.129	[-0.397 - 0.11]	-2.205	3.01E-01	7.32E-01	619	768
Right entorhinal cortex	-0.235	0.130	[-0.49 - 0.02]	-5.568	9.23E-02	4.91E-01	612	766
Right fusiform gyrus	-0.409	0.131	[-0.666 - -0.152]	-5.980	3.62E-03	6.91E-02	619	767
Right inferior parietal cortex	-0.182	0.130	[-0.437 - 0.072]	-2.746	1.91E-01	6.43E-01	619	768
Right inferior temporal gyrus	-0.255	0.130	[-0.509 - 0]	-4.390	6.74E-02	4.20E-01	617	764
Right isthmus cingulate cortex	0.034	0.129	[-0.219 - 0.288]	0.627	8.04E-01	9.62E-01	618	768
Right lateral occipital cortex	-0.236	0.130	[-0.491 - 0.018]	-3.333	8.94E-02	4.86E-01	619	767
Right lateral orbitofrontal cortex	-0.256	0.130	[-0.511 - -0.002]	-3.486	6.61E-02	4.15E-01	619	766
Right lingual gyrus	-0.254	0.130	[-0.508 - 0.001]	-3.764	6.85E-02	4.23E-01	619	768
Right medial orbitofrontal cortex	-0.125	0.130	[-0.379 - 0.129]	-1.701	3.70E-01	7.83E-01	615	763
Right middle temporal gyrus	-0.307	0.130	[-0.562 - -0.053]	-4.738	2.75E-02	2.66E-01	619	767
Right parahippocampal gyrus	-0.165	0.129	[-0.419 - 0.089]	-2.545	2.35E-01	6.87E-01	618	767
Right paracentral lobule	-0.018	0.130	[-0.272 - 0.236]	-0.289	8.96E-01	9.83E-01	619	767
Right pars opercularis of inferior frontal gyrus	-0.151	0.130	[-0.405 - 0.103]	-2.581	2.77E-01	7.13E-01	619	767
Right pars orbitalis of inferior frontal gyrus	-0.078	0.129	[-0.332 - 0.175]	-1.114	5.72E-01	8.74E-01	619	768
Right pars triangularis of inferior frontal gyrus	0.307	0.130	[0.052 - 0.563]	5.313	2.81E-02	2.69E-01	619	768
Right pericalcarine cortex	-0.064	0.129	[-0.317 - 0.19]	-1.171	6.46E-01	9.09E-01	619	765
Right postcentral gyrus	-0.086	0.130	[-0.341 - 0.168]	-1.113	5.36E-01	8.53E-01	615	767
Right posterior cingulate cortex	-0.063	0.129	[-0.316 - 0.191]	-1.028	6.52E-01	9.12E-01	618	767

Right precentral gyrus	-0.092	0.129	[-0.345 - 0.161]	-1.141	5.08E-01	8.43E-01	614	768
Right precuneus	0.017	0.129	[-0.237 - 0.27]	0.221	9.05E-01	9.83E-01	619	768
Right rostral anterior cingulate cortex	-0.173	0.129	[-0.426 - 0.081]	-3.816	2.14E-01	6.66E-01	618	766
Right rostral middle frontal gyrus	-0.118	0.129	[-0.372 - 0.135]	-1.778	3.95E-01	7.98E-01	619	765
Right superior frontal gyrus	-0.166	0.129	[-0.42 - 0.088]	-2.194	2.32E-01	6.85E-01	619	766
Right superior parietal cortex	-0.130	0.129	[-0.384 - 0.123]	-1.608	3.48E-01	7.73E-01	619	768
Right superior temporal gyrus	-0.063	0.129	[-0.317 - 0.19]	-0.782	6.49E-01	9.11E-01	613	765
Right supramarginal gyrus	0.015	0.129	[-0.238 - 0.269]	0.238	9.11E-01	9.83E-01	614	765
Right frontal pole	-0.252	0.130	[-0.507 - 0.002]	-4.351	7.00E-02	4.27E-01	619	767
Right temporal pole	-0.015	0.129	[-0.269 - 0.238]	-0.245	9.11E-01	9.83E-01	602	765
Right transverse temporal gyrus	-0.103	0.129	[-0.356 - 0.151]	-1.873	4.59E-01	8.33E-01	619	767
Right insula	0.073	0.130	[-0.181 - 0.327]	1.009	6.00E-01	8.85E-01	618	766
Left hemisphere total surface area	-0.214	0.133	[-0.475 - 0.047]	-2.317	1.34E-01	5.66E-01	567	683
Right hemisphere total surface area	-0.226	0.133	[-0.487 - 0.035]	-2.452	1.13E-01	5.38E-01	567	683

Supplementary Table 52. Effects of mood state at time of scanning (euthymic vs depressed) on cortical thickness in adolescents <25 years old

	Cohen's d (Adol Euth vs Dep)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	0.115	0.165	[-0.208 - 0.438]	0.933	5.18E-01	8.47E-01	132	51
Left caudal anterior cingulate cortex	0.111	0.164	[-0.209 - 0.432]	1.177	5.27E-01	8.51E-01	133	52
Left caudal middle frontal gyrus	0.029	0.164	[-0.291 - 0.35]	0.230	8.67E-01	9.81E-01	133	52
Left cuneus	0.127	0.164	[-0.194 - 0.448]	1.195	4.71E-01	8.35E-01	133	52
Left entorhinal cortex	-0.018	0.169	[-0.348 - 0.312]	-0.247	9.21E-01	9.85E-01	132	48
Left fusiform gyrus	0.033	0.162	[-0.286 - 0.351]	0.292	8.52E-01	9.78E-01	133	53
Left inferior parietal cortex	0.128	0.163	[-0.191 - 0.446]	0.908	4.66E-01	8.33E-01	133	53
Left inferior temporal gyrus	-0.035	0.162	[-0.353 - 0.283]	-0.364	8.42E-01	9.74E-01	133	53
Left isthmus cingulate cortex	0.042	0.163	[-0.276 - 0.361]	0.383	8.08E-01	9.64E-01	132	53
Left lateral occipital cortex	-0.035	0.164	[-0.355 - 0.286]	-0.244	8.44E-01	9.75E-01	133	52
Left lateral orbitofrontal cortex	0.024	0.164	[-0.297 - 0.344]	0.191	8.93E-01	9.83E-01	133	52
Left lingual gyrus	-0.240	0.163	[-0.559 - 0.079]	-1.800	1.71E-01	6.15E-01	133	53
Left medial orbitofrontal cortex	0.001	0.164	[-0.319 - 0.322]	0.014	9.94E-01	9.98E-01	133	52
Left middle temporal gyrus	-0.093	0.163	[-0.412 - 0.226]	-0.718	5.94E-01	8.82E-01	132	53
Left parahippocampal gyrus	-0.286	0.167	[-0.613 - 0.04]	-3.565	1.11E-01	5.36E-01	133	50
Left paracentral lobule	-0.055	0.164	[-0.375 - 0.266]	-0.465	7.57E-01	9.44E-01	133	52
Left pars opercularis of inferior frontal gyrus	0.036	0.162	[-0.283 - 0.354]	0.274	8.38E-01	9.73E-01	133	53
Left pars orbitalis of inferior frontal gyrus	0.002	0.162	[-0.317 - 0.32]	0.014	9.93E-01	9.98E-01	133	53
Left pars triangularis of inferior frontal gyrus	-0.215	0.163	[-0.534 - 0.104]	-1.797	2.20E-01	6.71E-01	133	53
Left pericalcarine cortex	0.134	0.164	[-0.187 - 0.456]	1.569	4.47E-01	8.24E-01	132	52
Left postcentral gyrus	-0.079	0.163	[-0.398 - 0.24]	-0.644	6.52E-01	9.12E-01	132	53
Left posterior cingulate cortex	0.024	0.162	[-0.294 - 0.343]	0.179	8.90E-01	9.82E-01	133	53
Left precentral gyrus	0.039	0.163	[-0.279 - 0.358]	0.316	8.22E-01	9.69E-01	132	53
Left precuneus	0.173	0.163	[-0.145 - 0.492]	1.267	3.22E-01	7.47E-01	133	53

Left rostral anterior cingulate cortex	-0.046	0.165	[-0.369 - 0.277]	-0.457	7.95E-01	9.59E-01	133	51
Left rostral middle frontal gyrus	0.033	0.162	[-0.285 - 0.351]	0.253	8.50E-01	9.77E-01	133	53
Left superior frontal gyrus	0.035	0.162	[-0.283 - 0.354]	0.261	8.40E-01	9.74E-01	133	53
Left superior parietal cortex	0.023	0.162	[-0.296 - 0.341]	0.178	8.96E-01	9.83E-01	133	53
Left superior temporal gyrus	-0.006	0.163	[-0.325 - 0.313]	-0.043	9.72E-01	9.97E-01	132	53
Left supramarginal gyrus	0.053	0.163	[-0.266 - 0.371]	0.386	7.64E-01	9.46E-01	132	53
Left frontal pole	0.056	0.162	[-0.262 - 0.375]	0.669	7.47E-01	9.40E-01	133	53
Left temporal pole	0.101	0.163	[-0.217 - 0.42]	1.526	5.62E-01	8.69E-01	133	53
Left transverse temporal gyrus	0.265	0.163	[-0.055 - 0.584]	2.819	1.32E-01	5.63E-01	133	53
Left insula	0.007	0.163	[-0.312 - 0.326]	0.049	9.68E-01	9.97E-01	132	53
Right banks of superior temporal sulcus	0.108	0.165	[-0.215 - 0.431]	0.897	5.44E-01	8.57E-01	133	51
Right caudal anterior cingulate cortex	0.087	0.165	[-0.236 - 0.41]	0.910	6.25E-01	8.95E-01	133	51
Right caudal middle frontal gyrus	0.055	0.163	[-0.264 - 0.374]	0.433	7.53E-01	9.44E-01	132	53
Right cuneus	0.012	0.162	[-0.307 - 0.33]	0.108	9.47E-01	9.93E-01	133	53
Right entorhinal cortex	0.261	0.170	[-0.073 - 0.595]	3.871	1.56E-01	5.95E-01	132	47
Right fusiform gyrus	-0.219	0.163	[-0.538 - 0.101]	-1.994	2.12E-01	6.65E-01	132	53
Right inferior parietal cortex	-0.084	0.162	[-0.403 - 0.234]	-0.623	6.30E-01	8.99E-01	133	53
Right inferior temporal gyrus	-0.014	0.162	[-0.333 - 0.304]	-0.159	9.35E-01	9.89E-01	133	53
Right isthmus cingulate cortex	-0.176	0.164	[-0.497 - 0.145]	-1.596	3.19E-01	7.46E-01	133	52
Right lateral occipital cortex	-0.038	0.162	[-0.357 - 0.28]	-0.281	8.27E-01	9.71E-01	133	53
Right lateral orbitofrontal cortex	-0.012	0.164	[-0.333 - 0.308]	-0.101	9.44E-01	9.93E-01	133	52
Right lingual gyrus	0.099	0.165	[-0.224 - 0.422]	0.735	5.78E-01	8.75E-01	133	51
Right medial orbitofrontal cortex	-0.185	0.164	[-0.506 - 0.137]	-1.747	2.96E-01	7.26E-01	133	52
Right middle temporal gyrus	-0.096	0.163	[-0.415 - 0.222]	-0.883	5.82E-01	8.78E-01	133	53
Right parahippocampal gyrus	-0.117	0.164	[-0.437 - 0.204]	-1.385	5.08E-01	8.43E-01	133	52
Right paracentral lobule	-0.127	0.164	[-0.447 - 0.194]	-1.053	4.73E-01	8.37E-01	133	52
Right pars opercularis of inferior frontal gyrus	-0.148	0.163	[-0.467 - 0.171]	-1.149	3.98E-01	7.98E-01	133	53
Right pars orbitalis of inferior frontal gyrus	-0.026	0.162	[-0.344 - 0.293]	-0.228	8.84E-01	9.82E-01	133	53
Right pars triangularis of inferior frontal gyrus	0.075	0.162	[-0.243 - 0.394]	0.626	6.66E-01	9.18E-01	133	53
Right pericalcarine cortex	0.267	0.164	[-0.055 - 0.589]	3.080	1.31E-01	5.63E-01	133	52
Right postcentral gyrus	-0.025	0.162	[-0.343 - 0.294]	-0.210	8.87E-01	9.82E-01	133	53

Right posterior cingulate cortex	0.042	0.164	[-0.278 - 0.363]	0.327	8.10E-01	9.65E-01	133	52
Right precentral gyrus	0.008	0.163	[-0.311 - 0.327]	0.067	9.63E-01	9.96E-01	132	53
Right precuneus	-0.020	0.163	[-0.339 - 0.298]	-0.155	9.08E-01	9.83E-01	132	53
Right rostral anterior cingulate cortex	-0.062	0.162	[-0.38 - 0.257]	-0.611	7.25E-01	9.34E-01	133	53
Right rostral middle frontal gyrus	-0.004	0.162	[-0.322 - 0.314]	-0.032	9.81E-01	9.97E-01	133	53
Right superior frontal gyrus	0.060	0.162	[-0.258 - 0.379]	0.445	7.30E-01	9.35E-01	133	53
Right superior parietal cortex	-0.133	0.163	[-0.452 - 0.186]	-1.140	4.47E-01	8.24E-01	133	53
Right superior temporal gyrus	-0.148	0.163	[-0.467 - 0.171]	-1.138	3.98E-01	7.98E-01	133	53
Right supramarginal gyrus	-0.054	0.162	[-0.373 - 0.264]	-0.406	7.56E-01	9.44E-01	133	53
Right frontal pole	0.262	0.163	[-0.058 - 0.581]	3.121	1.36E-01	5.68E-01	133	53
Right temporal pole	0.059	0.162	[-0.259 - 0.378]	0.920	7.35E-01	9.37E-01	133	53
Right transverse temporal gyrus	0.144	0.163	[-0.175 - 0.463]	1.557	4.11E-01	8.04E-01	133	53
Right insula	-0.062	0.162	[-0.381 - 0.256]	-0.431	7.22E-01	9.34E-01	133	53
Left hemisphere average thickness	0.010	0.163	[-0.31 - 0.329]	0.054	9.56E-01	9.95E-01	130	53
Right hemisphere average thickness	-0.061	0.163	[-0.381 - 0.258]	-0.346	7.26E-01	9.34E-01	130	53

Supplementary Table 53. Effects of mood state at time of scanning (euthymic vs depressed) on cortical surface area in adolescents <25 years old

	Cohen's d (Adol Euth vs Dep)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Controls	# Patients
Left banks of superior temporal sulcus	-0.138	0.165	[-0.461 - 0.186]	-2.410	4.44E-01	8.24E-01	132	51
Left caudal anterior cingulate cortex	-0.015	0.164	[-0.335 - 0.306]	-0.327	9.34E-01	9.89E-01	133	52
Left caudal middle frontal gyrus	-0.002	0.162	[-0.321 - 0.316]	-0.043	9.89E-01	9.97E-01	133	53
Left cuneus	-0.099	0.164	[-0.42 - 0.222]	-1.614	5.80E-01	8.76E-01	133	52
Left entorhinal cortex	-0.351	0.168	[-0.682 - -0.021]	-7.590	5.66E-02	3.88E-01	131	49
Left fusiform gyrus	-0.089	0.163	[-0.407 - 0.23]	-1.315	6.16E-01	8.92E-01	133	53
Left inferior parietal cortex	0.209	0.164	[-0.112 - 0.53]	3.130	2.42E-01	6.90E-01	133	52
Left inferior temporal gyrus	-0.096	0.163	[-0.414 - 0.223]	-1.646	5.90E-01	8.80E-01	133	53
Left isthmus cingulate cortex	-0.010	0.163	[-0.329 - 0.309]	-0.183	9.56E-01	9.95E-01	132	53
Left lateral occipital cortex	0.009	0.162	[-0.31 - 0.327]	0.120	9.61E-01	9.96E-01	133	53
Left lateral orbitofrontal cortex	-0.380	0.165	[-0.703 - -0.057]	-5.003	3.44E-02	3.05E-01	133	52
Left lingual gyrus	0.058	0.164	[-0.263 - 0.379]	0.876	7.45E-01	9.40E-01	133	52
Left medial orbitofrontal cortex	-0.183	0.164	[-0.504 - 0.138]	-2.711	3.05E-01	7.38E-01	133	52
Left middle temporal gyrus	0.056	0.163	[-0.263 - 0.375]	0.832	7.52E-01	9.42E-01	132	53
Left parahippocampal gyrus	-0.162	0.166	[-0.487 - 0.164]	-2.586	3.73E-01	7.84E-01	133	50
Left paracentral lobule	0.019	0.164	[-0.302 - 0.339]	0.280	9.17E-01	9.83E-01	133	52
Left pars opercularis of inferior frontal gyrus	-0.226	0.164	[-0.548 - 0.095]	-3.728	2.06E-01	6.59E-01	133	52
Left pars orbitalis of inferior frontal gyrus	-0.074	0.162	[-0.393 - 0.244]	-1.071	6.75E-01	9.20E-01	133	53
Left pars triangularis of inferior frontal gyrus	-0.123	0.163	[-0.442 - 0.196]	-1.962	4.89E-01	8.43E-01	132	53
Left pericalcarine cortex	0.001	0.163	[-0.317 - 0.32]	0.024	9.94E-01	9.98E-01	132	53
Left postcentral gyrus	-0.013	0.163	[-0.332 - 0.306]	-0.160	9.43E-01	9.92E-01	131	53
Left posterior cingulate cortex	-0.186	0.163	[-0.505 - 0.133]	-3.109	2.95E-01	7.25E-01	133	53
Left precentral gyrus	-0.034	0.163	[-0.353 - 0.285]	-0.421	8.48E-01	9.77E-01	132	53
Left precuneus	-0.076	0.162	[-0.395 - 0.242]	-1.008	6.66E-01	9.18E-01	133	53
Left rostral anterior cingulate cortex	-0.019	0.164	[-0.34 - 0.301]	-0.407	9.13E-01	9.83E-01	133	52

Left rostral middle frontal gyrus	-0.305	0.163	[-0.625 - 0.015]	-4.496	8.62E-02	4.76E-01	133	53
Left superior frontal gyrus	-0.252	0.163	[-0.572 - 0.067]	-3.203	1.56E-01	5.95E-01	133	53
Left superior parietal cortex	-0.026	0.162	[-0.344 - 0.293]	-0.326	8.85E-01	9.82E-01	133	53
Left superior temporal gyrus	-0.151	0.164	[-0.472 - 0.17]	-1.906	3.98E-01	7.98E-01	132	52
Left supramarginal gyrus	-0.227	0.163	[-0.547 - 0.093]	-3.463	2.03E-01	6.58E-01	131	53
Left frontal pole	0.121	0.163	[-0.198 - 0.44]	2.149	4.95E-01	8.43E-01	133	53
Left temporal pole	-0.058	0.162	[-0.377 - 0.26]	-0.913	7.41E-01	9.39E-01	133	53
Left transverse temporal gyrus	-0.196	0.163	[-0.515 - 0.123]	-3.395	2.69E-01	7.06E-01	133	53
Left insula	-0.213	0.163	[-0.533 - 0.107]	-2.797	2.32E-01	6.85E-01	131	53
Right banks of superior temporal sulcus	-0.187	0.165	[-0.511 - 0.136]	-3.496	2.98E-01	7.30E-01	133	51
Right caudal anterior cingulate cortex	-0.164	0.164	[-0.485 - 0.157]	-3.613	3.57E-01	7.78E-01	133	52
Right caudal middle frontal gyrus	-0.414	0.164	[-0.735 - -0.092]	-7.649	2.07E-02	2.25E-01	132	53
Right cuneus	-0.320	0.163	[-0.64 - 0.001]	-4.902	7.26E-02	4.37E-01	133	53
Right entorhinal cortex	-0.293	0.171	[-0.627 - 0.041]	-6.941	1.16E-01	5.43E-01	132	47
Right fusiform gyrus	-0.006	0.163	[-0.325 - 0.312]	-0.092	9.72E-01	9.97E-01	132	53
Right inferior parietal cortex	0.051	0.162	[-0.268 - 0.369]	0.761	7.75E-01	9.52E-01	133	53
Right inferior temporal gyrus	0.064	0.162	[-0.254 - 0.383]	1.109	7.16E-01	9.31E-01	133	53
Right isthmus cingulate cortex	0.190	0.163	[-0.129 - 0.509]	3.458	2.84E-01	7.18E-01	133	53
Right lateral occipital cortex	0.008	0.164	[-0.313 - 0.328]	0.111	9.65E-01	9.96E-01	133	52
Right lateral orbitofrontal cortex	-0.114	0.164	[-0.434 - 0.207]	-1.543	5.25E-01	8.49E-01	133	52
Right lingual gyrus	-0.118	0.164	[-0.439 - 0.203]	-1.749	5.09E-01	8.43E-01	133	52
Right medial orbitofrontal cortex	-0.229	0.164	[-0.55 - 0.093]	-3.120	2.01E-01	6.57E-01	133	52
Right middle temporal gyrus	-0.053	0.162	[-0.372 - 0.265]	-0.822	7.63E-01	9.46E-01	133	53
Right parahippocampal gyrus	-0.129	0.164	[-0.45 - 0.192]	-1.984	4.71E-01	8.35E-01	133	52
Right paracentral lobule	-0.337	0.165	[-0.66 - -0.015]	-5.369	6.01E-02	3.96E-01	133	52
Right pars opercularis of inferior frontal gyrus	-0.117	0.165	[-0.44 - 0.207]	-1.992	5.17E-01	8.47E-01	132	51
Right pars orbitalis of inferior frontal gyrus	-0.140	0.163	[-0.459 - 0.179]	-1.987	4.30E-01	8.22E-01	133	53
Right pars triangularis of inferior frontal gyrus	-0.091	0.163	[-0.41 - 0.228]	-1.575	6.08E-01	8.88E-01	132	53
Right pericalcarine cortex	-0.130	0.163	[-0.448 - 0.189]	-2.384	4.65E-01	8.33E-01	133	53
Right postcentral gyrus	0.185	0.163	[-0.134 - 0.504]	2.388	2.97E-01	7.28E-01	132	53
Right posterior cingulate cortex	-0.218	0.163	[-0.537 - 0.101]	-3.586	2.19E-01	6.71E-01	133	53

Right precentral gyrus	-0.492	0.164	[-0.814 - -0.169]	-6.096	6.09E-03	9.89E-02	133	53
Right precuneus	0.043	0.163	[-0.275 - 0.362]	0.578	8.07E-01	9.63E-01	132	53
Right rostral anterior cingulate cortex	-0.135	0.164	[-0.456 - 0.186]	-2.984	4.49E-01	8.26E-01	133	52
Right rostral middle frontal gyrus	0.192	0.164	[-0.129 - 0.513]	2.891	2.83E-01	7.18E-01	133	52
Right superior frontal gyrus	-0.337	0.163	[-0.657 - -0.017]	-4.451	5.85E-02	3.93E-01	133	53
Right superior parietal cortex	0.097	0.163	[-0.222 - 0.415]	1.198	5.84E-01	8.78E-01	133	53
Right superior temporal gyrus	-0.065	0.162	[-0.383 - 0.254]	-0.799	7.15E-01	9.31E-01	133	53
Right supramarginal gyrus	0.015	0.164	[-0.306 - 0.335]	0.226	9.34E-01	9.89E-01	133	52
Right frontal pole	-0.009	0.162	[-0.328 - 0.309]	-0.158	9.59E-01	9.95E-01	133	53
Right temporal pole	0.091	0.163	[-0.228 - 0.409]	1.435	6.09E-01	8.88E-01	133	53
Right transverse temporal gyrus	0.137	0.163	[-0.182 - 0.455]	2.493	4.40E-01	8.23E-01	133	53
Right insula	-0.466	0.164	[-0.787 - -0.144]	-6.429	9.31E-03	1.33E-01	133	53
Left hemisphere total surface area	-0.152	0.168	[-0.481 - 0.177]	-1.638	4.06E-01	8.01E-01	124	50
Right hemisphere total surface area	-0.117	0.168	[-0.446 - 0.211]	-1.276	5.21E-01	8.47E-01	124	50

Supplementary Table 54. Effects of voxel volume on cortical thickness effect size estimates in adults

	Pearson's r^a (Voxel Vol)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Subjects
Left banks of superior temporal sulcus	-0.279	0.015	[-0.316 - -0.257]	-4.715	1.04E-01	5.15E-01	4444
Left caudal anterior cingulate cortex	-0.109	0.015	[-0.139 - -0.08]	-2.323	5.32E-01	6.42E-01	4444
Left caudal middle frontal gyrus	-0.244	0.015	[-0.278 - -0.22]	-3.925	1.58E-01	5.15E-01	4444
Left cuneus	-0.209	0.015	[-0.242 - -0.183]	-4.024	2.27E-01	5.15E-01	4444
Left entorhinal cortex	-0.174	0.015	[-0.205 - -0.146]	-4.817	3.19E-01	5.15E-01	4444
Left fusiform gyrus	-0.159	0.015	[-0.19 - -0.131]	-2.886	3.61E-01	5.15E-01	4444
Left inferior parietal cortex	-0.025	0.015	[-0.054 - 0.005]	-0.351	8.88E-01	9.14E-01	4444
Left inferior temporal gyrus	-0.102	0.015	[-0.132 - -0.073]	-2.138	5.59E-01	6.64E-01	4444
Left isthmus cingulate cortex	0.022	0.015	[-0.008 - 0.051]	0.388	9.02E-01	9.15E-01	4444
Left lateral occipital cortex	0.064	0.015	[0.035 - 0.094]	0.910	7.13E-01	7.93E-01	4444
Left lateral orbitofrontal cortex	0.002	0.015	[-0.027 - 0.032]	0.037	9.89E-01	9.89E-01	4444
Left lingual gyrus	-0.085	0.015	[-0.114 - -0.056]	-1.276	6.28E-01	7.33E-01	4444
Left medial orbitofrontal cortex	-0.026	0.015	[-0.055 - 0.003]	-0.499	8.82E-01	9.14E-01	4444
Left middle temporal gyrus	-0.212	0.015	[-0.245 - -0.186]	-3.343	2.21E-01	5.15E-01	4444
Left parahippocampal gyrus	-0.287	0.015	[-0.324 - -0.266]	-7.463	9.48E-02	5.15E-01	4444
Left paracentral lobule	-0.370	0.015	[-0.418 - -0.359]	-6.782	2.88E-02	4.03E-01	4444
Left pars opercularis of inferior frontal gyrus	-0.187	0.015	[-0.218 - -0.159]	-2.914	2.83E-01	5.15E-01	4444
Left pars orbitalis of inferior frontal gyrus	-0.168	0.015	[-0.199 - -0.14]	-3.099	3.35E-01	5.15E-01	4444
Left pars triangularis of inferior frontal gyrus	-0.188	0.015	[-0.22 - -0.161]	-3.200	2.79E-01	5.15E-01	4444
Left pericalcarine cortex	-0.163	0.015	[-0.194 - -0.135]	-3.853	3.50E-01	5.15E-01	4444
Left postcentral gyrus	-0.452	0.015	[-0.517 - -0.458]	-8.258	6.40E-03	2.24E-01	4444
Left posterior cingulate cortex	-0.129	0.015	[-0.159 - -0.1]	-1.914	4.62E-01	5.77E-01	4444
Left precentral gyrus	-0.406	0.015	[-0.46 - -0.401]	-7.148	1.55E-02	2.72E-01	4444
Left precuneus	-0.192	0.015	[-0.224 - -0.165]	-2.855	2.70E-01	5.15E-01	4444
Left rostral anterior cingulate cortex	-0.170	0.015	[-0.202 - -0.143]	-3.434	3.28E-01	5.15E-01	4444
Left rostral middle frontal gyrus	-0.140	0.015	[-0.17 - -0.111]	-2.162	4.23E-01	5.77E-01	4444
Left superior frontal gyrus	-0.124	0.015	[-0.154 - -0.095]	-1.850	4.77E-01	5.86E-01	4444

Left superior parietal cortex	-0.165	0.015	[-0.196 - -0.137]	-2.602	3.45E-01	5.15E-01	4444
Left superior temporal gyrus	-0.295	0.015	[-0.333 - -0.275]	-4.365	8.54E-02	5.15E-01	4444
Left supramarginal gyrus	-0.189	0.015	[-0.221 - -0.162]	-2.830	2.76E-01	5.15E-01	4444
Left frontal pole	-0.214	0.015	[-0.247 - -0.188]	-5.196	2.17E-01	5.15E-01	4444
Left temporal pole	-0.131	0.015	[-0.161 - -0.103]	-3.984	4.52E-01	5.77E-01	4444
Left transverse temporal gyrus	-0.246	0.015	[-0.28 - -0.221]	-5.403	1.55E-01	5.15E-01	4444
Left insula	-0.211	0.015	[-0.243 - -0.185]	-3.000	2.24E-01	5.15E-01	4444
Right banks of superior temporal sulcus	-0.284	0.015	[-0.322 - -0.263]	-4.933	9.79E-02	5.15E-01	4444
Right caudal anterior cingulate cortex	-0.265	0.015	[-0.301 - -0.242]	-5.761	1.24E-01	5.15E-01	4444
Right caudal middle frontal gyrus	-0.331	0.015	[-0.373 - -0.315]	-5.522	5.21E-02	5.15E-01	4444
Right cuneus	-0.220	0.015	[-0.253 - -0.194]	-4.201	2.04E-01	5.15E-01	4444
Right entorhinal cortex	-0.152	0.015	[-0.182 - -0.123]	-4.552	3.84E-01	5.38E-01	4444
Right fusiform gyrus	-0.132	0.015	[-0.162 - -0.103]	-2.418	4.51E-01	5.77E-01	4444
Right inferior parietal cortex	-0.070	0.015	[-0.1 - -0.041]	-1.040	6.89E-01	7.78E-01	4444
Right inferior temporal gyrus	-0.072	0.015	[-0.101 - -0.043]	-1.600	6.82E-01	7.78E-01	4444
Right isthmus cingulate cortex	0.060	0.015	[0.03 - 0.089]	1.085	7.33E-01	8.02E-01	4444
Right lateral occipital cortex	0.045	0.015	[0.016 - 0.075]	0.667	7.97E-01	8.45E-01	4444
Right lateral orbitofrontal cortex	-0.135	0.015	[-0.165 - -0.106]	-2.241	4.41E-01	5.77E-01	4444
Right lingual gyrus	-0.046	0.015	[-0.076 - -0.017]	-0.692	7.91E-01	8.45E-01	4444
Right medial orbitofrontal cortex	-0.191	0.015	[-0.223 - -0.164]	-3.689	2.71E-01	5.15E-01	4444
Right middle temporal gyrus	-0.168	0.015	[-0.199 - -0.141]	-3.131	3.34E-01	5.15E-01	4444
Right parahippocampal gyrus	-0.250	0.015	[-0.285 - -0.226]	-6.135	1.48E-01	5.15E-01	4444
Right paracentral lobule	-0.341	0.015	[-0.384 - -0.325]	-6.024	4.53E-02	5.15E-01	4444
Right pars opercularis of inferior frontal gyrus	-0.265	0.015	[-0.301 - -0.243]	-4.274	1.23E-01	5.15E-01	4444
Right pars orbitalis of inferior frontal gyrus	-0.183	0.015	[-0.214 - -0.155]	-3.318	2.94E-01	5.15E-01	4444
Right pars triangularis of inferior frontal gyrus	-0.223	0.015	[-0.256 - -0.197]	-3.788	1.99E-01	5.15E-01	4444
Right pericalcarine cortex	-0.205	0.015	[-0.238 - -0.179]	-4.845	2.36E-01	5.15E-01	4444
Right postcentral gyrus	-0.458	0.015	[-0.524 - -0.465]	-8.742	5.69E-03	2.24E-01	4444
Right posterior cingulate cortex	-0.190	0.015	[-0.222 - -0.163]	-2.982	2.74E-01	5.15E-01	4444
Right precentral gyrus	-0.430	0.015	[-0.49 - -0.431]	-7.726	9.88E-03	2.31E-01	4444
Right precuneus	-0.237	0.015	[-0.271 - -0.212]	-3.721	1.71E-01	5.15E-01	4444

Right rostral anterior cingulate cortex	-0.271	0.015	[-0.307 - -0.248]	-5.579	1.16E-01	5.15E-01	4444
Right rostral middle frontal gyrus	-0.213	0.015	[-0.246 - -0.187]	-3.395	2.18E-01	5.15E-01	4444
Right superior frontal gyrus	-0.178	0.015	[-0.21 - -0.151]	-2.669	3.05E-01	5.15E-01	4444
Right superior parietal cortex	-0.161	0.015	[-0.192 - -0.133]	-2.791	3.56E-01	5.15E-01	4444
Right superior temporal gyrus	-0.279	0.015	[-0.316 - -0.257]	-4.462	1.05E-01	5.15E-01	4444
Right supramarginal gyrus	-0.236	0.015	[-0.27 - -0.211]	-3.632	1.72E-01	5.15E-01	4444
Right frontal pole	-0.183	0.015	[-0.214 - -0.155]	-4.433	2.93E-01	5.15E-01	4444
Right temporal pole	-0.130	0.015	[-0.16 - -0.101]	-4.076	4.57E-01	5.77E-01	4444
Right transverse temporal gyrus	-0.170	0.015	[-0.201 - -0.142]	-3.732	3.29E-01	5.15E-01	4444
Right insula	-0.263	0.015	[-0.299 - -0.24]	-3.781	1.27E-01	5.15E-01	4444
Left hemisphere average thickness	-0.238	0.015	[-0.272 - -0.213]	-2.719	1.75E-01	5.15E-01	4444
Right hemisphere average thickness	-0.269	0.015	[-0.305 - -0.246]	-3.151	1.24E-01	5.15E-01	4444

Supplementary Table 55. Effects of voxel volume on cortical surface area effect size estimates in adults

	Pearson's r (Voxel Vol)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Subjects
Left banks of superior temporal sulcus	-0.149	0.015	[-0.179 - -0.12]	-5.256	3.94E-01	9.96E-01	4445
Left caudal anterior cingulate cortex	-0.185	0.015	[-0.217 - -0.158]	-8.317	2.86E-01	9.96E-01	4445
Left caudal middle frontal gyrus	-0.002	0.015	[-0.032 - 0.027]	-0.082	9.89E-01	9.96E-01	4445
Left cuneus	0.057	0.015	[0.027 - 0.086]	1.848	7.47E-01	9.96E-01	4445
Left entorhinal cortex	0.110	0.015	[0.081 - 0.14]	4.800	5.28E-01	9.96E-01	4445
Left fusiform gyrus	0.138	0.015	[0.11 - 0.169]	4.137	4.28E-01	9.96E-01	4445
Left inferior parietal cortex	-0.102	0.015	[-0.132 - -0.073]	-3.077	5.59E-01	9.96E-01	4445
Left inferior temporal gyrus	0.088	0.015	[0.059 - 0.118]	3.039	6.16E-01	9.96E-01	4445
Left isthmus cingulate cortex	0.163	0.015	[0.135 - 0.194]	6.155	3.50E-01	9.96E-01	4445
Left lateral occipital cortex	0.094	0.015	[0.065 - 0.124]	2.617	5.91E-01	9.96E-01	4445
Left lateral orbitofrontal cortex	-0.006	0.015	[-0.036 - 0.023]	-0.162	9.72E-01	9.96E-01	4445
Left lingual gyrus	-0.021	0.015	[-0.05 - 0.008]	-0.634	9.05E-01	9.96E-01	4445
Left medial orbitofrontal cortex	0.067	0.015	[0.037 - 0.096]	1.975	7.04E-01	9.96E-01	4445
Left middle temporal gyrus	-0.012	0.015	[-0.041 - 0.018]	-0.341	9.48E-01	9.96E-01	4445
Left parahippocampal gyrus	0.168	0.015	[0.14 - 0.199]	5.449	3.35E-01	9.96E-01	4445
Left paracentral lobule	0.030	0.015	[0.001 - 0.06]	0.905	8.63E-01	9.96E-01	4445
Left pars opercularis of inferior frontal gyrus	-0.113	0.015	[-0.143 - -0.085]	-3.760	5.16E-01	9.96E-01	4445
Left pars orbitalis of inferior frontal gyrus	-0.022	0.015	[-0.052 - 0.007]	-0.646	8.98E-01	9.96E-01	4445
Left pars triangularis of inferior frontal gyrus	-0.149	0.015	[-0.18 - -0.121]	-4.824	3.92E-01	9.96E-01	4445
Left pericalcarine cortex	-0.040	0.015	[-0.069 - -0.011]	-1.463	8.20E-01	9.96E-01	4445
Left postcentral gyrus	0.114	0.015	[0.085 - 0.144]	2.887	5.13E-01	9.96E-01	4445
Left posterior cingulate cortex	-0.201	0.015	[-0.234 - -0.175]	-6.882	2.46E-01	9.96E-01	4445
Left precentral gyrus	-0.020	0.015	[-0.049 - 0.009]	-0.498	9.09E-01	9.96E-01	4445
Left precuneus	-0.048	0.015	[-0.078 - -0.019]	-1.279	7.82E-01	9.96E-01	4445
Left rostral anterior cingulate cortex	0.096	0.015	[0.067 - 0.126]	4.051	5.82E-01	9.96E-01	4445
Left rostral middle frontal gyrus	-0.073	0.015	[-0.102 - -0.044]	-2.151	6.78E-01	9.96E-01	4445
Left superior frontal gyrus	0.003	0.015	[-0.026 - 0.033]	0.088	9.84E-01	9.96E-01	4445

Left superior parietal cortex	0.016	0.015	[-0.013 - 0.045]	0.409	9.27E-01	9.96E-01	4445
Left superior temporal gyrus	0.015	0.015	[-0.015 - 0.044]	0.372	9.33E-01	9.96E-01	4445
Left supramarginal gyrus	0.007	0.015	[-0.022 - 0.037]	0.218	9.68E-01	9.96E-01	4445
Left frontal pole	0.164	0.015	[0.136 - 0.195]	5.914	3.46E-01	9.96E-01	4445
Left temporal pole	0.368	0.015	[0.356 - 0.415]	12.344	2.98E-02	9.96E-01	4445
Left transverse temporal gyrus	0.048	0.015	[0.018 - 0.077]	1.655	7.85E-01	9.96E-01	4445
Left insula	0.001	0.015	[-0.028 - 0.03]	0.024	9.96E-01	9.96E-01	4445
Right banks of superior temporal sulcus	0.023	0.015	[-0.007 - 0.052]	0.847	8.97E-01	9.96E-01	4445
Right caudal anterior cingulate cortex	-0.122	0.015	[-0.152 - -0.094]	-5.421	4.83E-01	9.96E-01	4445
Right caudal middle frontal gyrus	-0.105	0.015	[-0.135 - -0.076]	-3.894	5.49E-01	9.96E-01	4445
Right cuneus	0.170	0.015	[0.142 - 0.201]	5.287	3.29E-01	9.96E-01	4445
Right entorhinal cortex	0.173	0.015	[0.146 - 0.205]	8.342	3.19E-01	9.96E-01	4445
Right fusiform gyrus	0.077	0.015	[0.048 - 0.106]	2.256	6.61E-01	9.96E-01	4445
Right inferior parietal cortex	-0.019	0.015	[-0.049 - 0.01]	-0.580	9.13E-01	9.96E-01	4445
Right inferior temporal gyrus	0.108	0.015	[0.079 - 0.138]	3.754	5.36E-01	9.96E-01	4445
Right isthmus cingulate cortex	0.048	0.015	[0.019 - 0.078]	1.762	7.83E-01	9.96E-01	4445
Right lateral occipital cortex	0.061	0.015	[0.032 - 0.09]	1.722	7.28E-01	9.96E-01	4445
Right lateral orbitofrontal cortex	-0.117	0.015	[-0.147 - -0.088]	-3.204	5.03E-01	9.96E-01	4445
Right lingual gyrus	0.077	0.015	[0.048 - 0.106]	2.290	6.60E-01	9.96E-01	4445
Right medial orbitofrontal cortex	0.188	0.015	[0.161 - 0.22]	5.236	2.78E-01	9.96E-01	4445
Right middle temporal gyrus	0.070	0.015	[0.041 - 0.1]	2.178	6.87E-01	9.96E-01	4445
Right parahippocampal gyrus	-0.037	0.015	[-0.066 - -0.007]	-1.130	8.35E-01	9.96E-01	4445
Right paracentral lobule	-0.027	0.015	[-0.056 - 0.003]	-0.851	8.79E-01	9.96E-01	4445
Right pars opercularis of inferior frontal gyrus	-0.165	0.015	[-0.196 - -0.137]	-5.701	3.44E-01	9.96E-01	4445
Right pars orbitalis of inferior frontal gyrus	-0.053	0.015	[-0.083 - -0.024]	-1.517	7.61E-01	9.96E-01	4445
Right pars triangularis of inferior frontal gyrus	-0.121	0.015	[-0.151 - -0.093]	-4.231	4.87E-01	9.96E-01	4445
Right pericalcarine cortex	-0.028	0.015	[-0.057 - 0.002]	-1.024	8.74E-01	9.96E-01	4445
Right postcentral gyrus	-0.004	0.015	[-0.034 - 0.025]	-0.107	9.81E-01	9.96E-01	4445
Right posterior cingulate cortex	-0.129	0.015	[-0.159 - -0.1]	-4.278	4.60E-01	9.96E-01	4445
Right precentral gyrus	-0.084	0.015	[-0.113 - -0.055]	-2.087	6.32E-01	9.96E-01	4445
Right precuneus	0.015	0.015	[-0.015 - 0.044]	0.394	9.33E-01	9.96E-01	4445

Right rostral anterior cingulate cortex	-0.084	0.015	[-0.114 - -0.055]	-3.737	6.30E-01	9.96E-01	4445
Right rostral middle frontal gyrus	-0.088	0.015	[-0.118 - -0.059]	-2.661	6.15E-01	9.96E-01	4445
Right superior frontal gyrus	0.008	0.015	[-0.021 - 0.038]	0.221	9.62E-01	9.96E-01	4445
Right superior parietal cortex	0.031	0.015	[0.002 - 0.06]	0.764	8.60E-01	9.96E-01	4445
Right superior temporal gyrus	0.005	0.015	[-0.025 - 0.034]	0.119	9.78E-01	9.96E-01	4445
Right supramarginal gyrus	-0.099	0.015	[-0.129 - -0.07]	-3.052	5.72E-01	9.96E-01	4445
Right frontal pole	0.193	0.015	[0.166 - 0.225]	6.794	2.66E-01	9.96E-01	4445
Right temporal pole	0.273	0.015	[0.251 - 0.309]	8.996	1.13E-01	9.96E-01	4445
Right transverse temporal gyrus	-0.110	0.015	[-0.14 - -0.081]	-4.038	5.29E-01	9.96E-01	4445
Right insula	-0.083	0.015	[-0.113 - -0.054]	-2.311	6.34E-01	9.96E-01	4445
Left hemisphere total surface area	-0.009	0.015	[-0.039 - 0.02]	-0.199	9.59E-01	9.96E-01	4445
Right hemisphere total surface area	-0.022	0.015	[-0.051 - 0.008]	-0.470	9.05E-01	9.96E-01	4445

Supplementary Table 56. Effects of voxel volume on cortical thickness effect size estimates in adolescents <25 years old

	Pearson's r^a (Voxel Vol)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Subjects
Left banks of superior temporal sulcus	-0.172	0.026	[-0.225 - -0.122]	-2.828	3.56E-01	9.01E-01	1451
Left caudal anterior cingulate cortex	-0.224	0.026	[-0.279 - -0.176]	-4.843	2.27E-01	9.01E-01	1451
Left caudal middle frontal gyrus	-0.092	0.026	[-0.144 - -0.041]	-1.439	6.23E-01	9.09E-01	1451
Left cuneus	-0.386	0.026	[-0.458 - -0.355]	-7.848	3.22E-02	3.22E-01	1451
Left entorhinal cortex	0.058	0.026	[0.007 - 0.11]	1.598	7.55E-01	9.79E-01	1451
Left fusiform gyrus	0.030	0.026	[-0.022 - 0.081]	0.536	8.73E-01	9.83E-01	1451
Left inferior parietal cortex	-0.015	0.026	[-0.067 - 0.036]	-0.217	9.35E-01	9.83E-01	1451
Left inferior temporal gyrus	-0.006	0.026	[-0.057 - 0.046]	-0.116	9.76E-01	9.87E-01	1451
Left isthmus cingulate cortex	0.063	0.026	[0.012 - 0.115]	1.143	7.35E-01	9.79E-01	1451
Left lateral occipital cortex	0.049	0.026	[-0.002 - 0.101]	0.694	7.93E-01	9.83E-01	1451
Left lateral orbitofrontal cortex	0.066	0.026	[0.014 - 0.117]	1.064	7.25E-01	9.79E-01	1451
Left lingual gyrus	-0.207	0.026	[-0.261 - -0.158]	-3.174	2.64E-01	9.01E-01	1451
Left medial orbitofrontal cortex	0.059	0.026	[0.007 - 0.11]	1.134	7.54E-01	9.79E-01	1451
Left middle temporal gyrus	-0.131	0.026	[-0.183 - -0.08]	-2.033	4.83E-01	9.01E-01	1451
Left parahippocampal gyrus	-0.125	0.026	[-0.177 - -0.074]	-3.142	5.03E-01	9.01E-01	1451
Left paracentral lobule	-0.425	0.026	[-0.505 - -0.402]	-8.001	1.72E-02	3.01E-01	1451
Left pars opercularis of inferior frontal gyrus	-0.097	0.026	[-0.149 - -0.046]	-1.499	6.03E-01	9.09E-01	1451
Left pars orbitalis of inferior frontal gyrus	-0.114	0.026	[-0.166 - -0.063]	-2.092	5.40E-01	9.01E-01	1451
Left pars triangularis of inferior frontal gyrus	-0.063	0.026	[-0.115 - -0.012]	-1.055	7.36E-01	9.79E-01	1451
Left pericalcarine cortex	-0.525	0.026	[-0.634 - -0.531]	-14.397	2.45E-03	1.22E-01	1451
Left postcentral gyrus	-0.403	0.026	[-0.479 - -0.376]	-7.177	2.45E-02	3.07E-01	1451
Left posterior cingulate cortex	-0.194	0.026	[-0.248 - -0.145]	-2.913	2.97E-01	9.01E-01	1451
Left precentral gyrus	-0.368	0.026	[-0.438 - -0.335]	-6.374	4.15E-02	3.63E-01	1451
Left precuneus	-0.218	0.026	[-0.273 - -0.17]	-3.266	2.39E-01	9.01E-01	1451
Left rostral anterior cingulate cortex	-0.028	0.026	[-0.08 - 0.023]	-0.565	8.79E-01	9.83E-01	1451
Left rostral middle frontal gyrus	-0.121	0.026	[-0.173 - -0.07]	-1.862	5.17E-01	9.01E-01	1451
Left superior frontal gyrus	0.017	0.026	[-0.035 - 0.068]	0.250	9.28E-01	9.83E-01	1451

Left superior parietal cortex	-0.119	0.026	[-0.172 - -0.069]	-1.877	5.22E-01	9.01E-01	1451
Left superior temporal gyrus	-0.107	0.026	[-0.159 - -0.056]	-1.522	5.67E-01	9.09E-01	1451
Left supramarginal gyrus	-0.165	0.026	[-0.218 - -0.115]	-2.450	3.76E-01	9.01E-01	1451
Left frontal pole	-0.052	0.026	[-0.104 - -0.001]	-1.242	7.80E-01	9.83E-01	1451
Left temporal pole	0.138	0.026	[0.088 - 0.191]	4.199	4.59E-01	9.01E-01	1451
Left transverse temporal gyrus	-0.134	0.026	[-0.186 - -0.083]	-2.875	4.73E-01	9.01E-01	1451
Left insula	-0.003	0.026	[-0.055 - 0.048]	-0.042	9.87E-01	9.87E-01	1451
Right banks of superior temporal sulcus	0.019	0.026	[-0.032 - 0.071]	0.322	9.18E-01	9.83E-01	1451
Right caudal anterior cingulate cortex	-0.145	0.026	[-0.198 - -0.095]	-3.079	4.35E-01	9.01E-01	1451
Right caudal middle frontal gyrus	-0.128	0.026	[-0.18 - -0.077]	-2.036	4.92E-01	9.01E-01	1451
Right cuneus	-0.271	0.026	[-0.329 - -0.226]	-5.240	1.41E-01	9.01E-01	1451
Right entorhinal cortex	0.117	0.026	[0.066 - 0.169]	3.503	5.30E-01	9.01E-01	1451
Right fusiform gyrus	0.127	0.026	[0.076 - 0.179]	2.326	4.97E-01	9.01E-01	1451
Right inferior parietal cortex	-0.039	0.026	[-0.09 - 0.013]	-0.577	8.35E-01	9.83E-01	1451
Right inferior temporal gyrus	0.022	0.026	[-0.029 - 0.074]	0.494	9.05E-01	9.83E-01	1451
Right isthmus cingulate cortex	-0.014	0.026	[-0.065 - 0.038]	-0.254	9.41E-01	9.83E-01	1451
Right lateral occipital cortex	0.063	0.026	[0.012 - 0.115]	0.931	7.36E-01	9.79E-01	1451
Right lateral orbitofrontal cortex	-0.020	0.026	[-0.071 - 0.032]	-0.328	9.16E-01	9.83E-01	1451
Right lingual gyrus	-0.231	0.026	[-0.286 - -0.183]	-3.532	2.12E-01	9.01E-01	1451
Right medial orbitofrontal cortex	-0.043	0.026	[-0.095 - 0.008]	-0.820	8.17E-01	9.83E-01	1451
Right middle temporal gyrus	0.004	0.026	[-0.047 - 0.056]	0.077	9.82E-01	9.87E-01	1451
Right parahippocampal gyrus	-0.154	0.026	[-0.207 - -0.104]	-3.712	4.07E-01	9.01E-01	1451
Right paracentral lobule	-0.358	0.026	[-0.427 - -0.324]	-6.383	4.77E-02	3.71E-01	1451
Right pars opercularis of inferior frontal gyrus	-0.098	0.026	[-0.15 - -0.047]	-1.529	6.00E-01	9.09E-01	1451
Right pars orbitalis of inferior frontal gyrus	-0.093	0.026	[-0.145 - -0.042]	-1.674	6.18E-01	9.09E-01	1451
Right pars triangularis of inferior frontal gyrus	-0.146	0.026	[-0.198 - -0.095]	-2.447	4.34E-01	9.01E-01	1451
Right pericalcarine cortex	-0.468	0.026	[-0.559 - -0.456]	-12.232	7.89E-03	1.84E-01	1451
Right postcentral gyrus	-0.508	0.026	[-0.612 - -0.509]	-10.027	3.49E-03	1.22E-01	1451
Right posterior cingulate cortex	-0.152	0.026	[-0.205 - -0.102]	-2.369	4.15E-01	9.01E-01	1451
Right precentral gyrus	-0.399	0.026	[-0.474 - -0.371]	-7.048	2.63E-02	3.07E-01	1451
Right precuneus	-0.195	0.026	[-0.249 - -0.146]	-3.041	2.92E-01	9.01E-01	1451

Right rostral anterior cingulate cortex	-0.233	0.026	[-0.288 - -0.185]	-4.741	2.08E-01	9.01E-01	1451
Right rostral middle frontal gyrus	-0.213	0.026	[-0.267 - -0.164]	-3.380	2.51E-01	9.01E-01	1451
Right superior frontal gyrus	-0.018	0.026	[-0.069 - 0.034]	-0.263	9.24E-01	9.83E-01	1451
Right superior parietal cortex	-0.141	0.026	[-0.193 - -0.09]	-2.435	4.50E-01	9.01E-01	1451
Right superior temporal gyrus	-0.158	0.026	[-0.211 - -0.108]	-2.464	3.95E-01	9.01E-01	1451
Right supramarginal gyrus	-0.137	0.026	[-0.189 - -0.086]	-2.062	4.64E-01	9.01E-01	1451
Right frontal pole	-0.219	0.026	[-0.274 - -0.171]	-5.359	2.36E-01	9.01E-01	1451
Right temporal pole	0.165	0.026	[0.115 - 0.218]	5.183	3.77E-01	9.01E-01	1451
Right transverse temporal gyrus	-0.231	0.026	[-0.286 - -0.183]	-5.128	2.12E-01	9.01E-01	1451
Right insula	-0.098	0.026	[-0.149 - -0.046]	-1.361	6.01E-01	9.09E-01	1451
Left hemisphere average thickness	-0.160	0.026	[-0.213 - -0.11]	-1.798	3.98E-01	9.01E-01	1451
Right hemisphere average thickness	-0.183	0.026	[-0.237 - -0.134]	-2.103	3.32E-01	9.01E-01	1451

Supplementary Table 57. Effects of voxel volume on cortical surface area effect size estimates in adolescents <25 years old

	Pearson's r (Voxel Vol)	Std. Err.	95% CI	% Difference	P-value	FDR P- value	# Subjects
Left banks of superior temporal sulcus	-0.195	0.026	[-0.249 - -0.146]	-6.963	2.92E-01	9.92E-01	1450
Left caudal anterior cingulate cortex	-0.072	0.026	[-0.124 - -0.021]	-3.184	7.00E-01	9.92E-01	1450
Left caudal middle frontal gyrus	-0.002	0.026	[-0.053 - 0.05]	-0.066	9.92E-01	9.92E-01	1450
Left cuneus	0.095	0.026	[0.044 - 0.147]	3.107	6.12E-01	9.92E-01	1450
Left entorhinal cortex	0.186	0.026	[0.136 - 0.239]	8.159	3.18E-01	9.92E-01	1450
Left fusiform gyrus	0.284	0.026	[0.241 - 0.344]	8.784	1.21E-01	9.92E-01	1450
Left inferior parietal cortex	-0.041	0.026	[-0.092 - 0.011]	-1.219	8.28E-01	9.92E-01	1450
Left inferior temporal gyrus	0.137	0.026	[0.086 - 0.19]	4.769	4.62E-01	9.92E-01	1450
Left isthmus cingulate cortex	0.119	0.026	[0.069 - 0.172]	4.486	5.22E-01	9.92E-01	1450
Left lateral occipital cortex	0.122	0.026	[0.071 - 0.174]	3.401	5.14E-01	9.92E-01	1450
Left lateral orbitofrontal cortex	0.076	0.026	[0.024 - 0.127]	1.997	6.86E-01	9.92E-01	1450
Left lingual gyrus	0.142	0.026	[0.092 - 0.195]	4.339	4.46E-01	9.92E-01	1450
Left medial orbitofrontal cortex	-0.115	0.026	[-0.167 - -0.064]	-3.427	5.38E-01	9.92E-01	1450
Left middle temporal gyrus	0.030	0.026	[-0.022 - 0.081]	0.880	8.74E-01	9.92E-01	1450
Left parahippocampal gyrus	-0.010	0.026	[-0.061 - 0.042]	-0.305	9.59E-01	9.92E-01	1450
Left paracentral lobule	-0.143	0.026	[-0.196 - -0.093]	-4.344	4.42E-01	9.92E-01	1450
Left pars opercularis of inferior frontal gyrus	-0.208	0.026	[-0.263 - -0.16]	-7.015	2.61E-01	9.92E-01	1450
Left pars orbitalis of inferior frontal gyrus	0.105	0.026	[0.054 - 0.157]	3.053	5.73E-01	9.92E-01	1450
Left pars triangularis of inferior frontal gyrus	-0.129	0.026	[-0.181 - -0.078]	-4.142	4.91E-01	9.92E-01	1450
Left pericalcarine cortex	0.073	0.026	[0.022 - 0.125]	2.686	6.95E-01	9.92E-01	1450
Left postcentral gyrus	0.188	0.026	[0.139 - 0.242]	4.808	3.10E-01	9.92E-01	1450
Left posterior cingulate cortex	-0.073	0.026	[-0.125 - -0.022]	-2.461	6.95E-01	9.92E-01	1450
Left precentral gyrus	0.096	0.026	[0.044 - 0.148]	2.382	6.08E-01	9.92E-01	1450
Left precuneus	0.083	0.026	[0.032 - 0.135]	2.206	6.56E-01	9.92E-01	1450
Left rostral anterior cingulate cortex	0.039	0.026	[-0.013 - 0.09]	1.633	8.35E-01	9.92E-01	1450
Left rostral middle frontal gyrus	0.019	0.026	[-0.033 - 0.07]	0.551	9.20E-01	9.92E-01	1450
Left superior frontal gyrus	-0.067	0.026	[-0.119 - -0.016]	-1.711	7.19E-01	9.92E-01	1450

Left superior parietal cortex	0.099	0.026	[0.048 - 0.151]	2.549	5.94E-01	9.92E-01	1450
Left superior temporal gyrus	0.007	0.026	[-0.045 - 0.058]	0.172	9.71E-01	9.92E-01	1450
Left supramarginal gyrus	0.126	0.026	[0.075 - 0.178]	3.872	5.01E-01	9.92E-01	1450
Left frontal pole	0.245	0.026	[0.199 - 0.302]	8.987	1.84E-01	9.92E-01	1450
Left temporal pole	0.200	0.026	[0.151 - 0.254]	6.375	2.81E-01	9.92E-01	1450
Left transverse temporal gyrus	-0.027	0.026	[-0.079 - 0.024]	-0.943	8.84E-01	9.92E-01	1450
Left insula	-0.086	0.026	[-0.138 - -0.035]	-2.280	6.44E-01	9.92E-01	1450
Right banks of superior temporal sulcus	0.159	0.026	[0.109 - 0.212]	6.022	3.92E-01	9.92E-01	1450
Right caudal anterior cingulate cortex	0.141	0.026	[0.09 - 0.193]	6.250	4.50E-01	9.92E-01	1450
Right caudal middle frontal gyrus	-0.046	0.026	[-0.098 - 0.005]	-1.720	8.04E-01	9.92E-01	1450
Right cuneus	0.214	0.026	[0.166 - 0.269]	6.735	2.47E-01	9.92E-01	1450
Right entorhinal cortex	0.043	0.026	[-0.009 - 0.094]	2.035	8.19E-01	9.92E-01	1450
Right fusiform gyrus	0.257	0.026	[0.211 - 0.315]	7.780	1.63E-01	9.92E-01	1450
Right inferior parietal cortex	0.031	0.026	[-0.021 - 0.082]	0.927	8.69E-01	9.92E-01	1450
Right inferior temporal gyrus	0.261	0.026	[0.216 - 0.319]	9.334	1.55E-01	9.92E-01	1450
Right isthmus cingulate cortex	-0.066	0.026	[-0.118 - -0.015]	-2.423	7.23E-01	9.92E-01	1450
Right lateral occipital cortex	0.061	0.026	[0.01 - 0.113]	1.725	7.44E-01	9.92E-01	1450
Right lateral orbitofrontal cortex	-0.003	0.026	[-0.054 - 0.049]	-0.070	9.89E-01	9.92E-01	1450
Right lingual gyrus	0.187	0.026	[0.138 - 0.241]	5.656	3.13E-01	9.92E-01	1450
Right medial orbitofrontal cortex	0.190	0.026	[0.141 - 0.244]	5.272	3.07E-01	9.92E-01	1450
Right middle temporal gyrus	0.173	0.026	[0.123 - 0.226]	5.398	3.53E-01	9.92E-01	1450
Right parahippocampal gyrus	0.224	0.026	[0.176 - 0.279]	7.082	2.26E-01	9.92E-01	1450
Right paracentral lobule	0.014	0.026	[-0.038 - 0.065]	0.439	9.41E-01	9.92E-01	1450
Right pars opercularis of inferior frontal gyrus	-0.074	0.026	[-0.125 - -0.022]	-2.518	6.94E-01	9.92E-01	1450
Right pars orbitalis of inferior frontal gyrus	0.161	0.026	[0.111 - 0.214]	4.647	3.86E-01	9.92E-01	1450
Right pars triangularis of inferior frontal gyrus	-0.092	0.026	[-0.143 - -0.04]	-3.182	6.24E-01	9.92E-01	1450
Right pericalcarine cortex	0.186	0.026	[0.137 - 0.24]	6.978	3.16E-01	9.92E-01	1450
Right postcentral gyrus	0.037	0.026	[-0.015 - 0.088]	0.946	8.45E-01	9.92E-01	1450
Right posterior cingulate cortex	-0.013	0.026	[-0.064 - 0.039]	-0.425	9.45E-01	9.92E-01	1450
Right precentral gyrus	0.031	0.026	[-0.02 - 0.083]	0.774	8.68E-01	9.92E-01	1450
Right precuneus	0.060	0.026	[0.009 - 0.112]	1.610	7.48E-01	9.92E-01	1450

Right rostral anterior cingulate cortex	-0.162	0.026	[-0.215 - -0.112]	-7.254	3.84E-01	9.92E-01	1450
Right rostral middle frontal gyrus	0.020	0.026	[-0.031 - 0.072]	0.606	9.14E-01	9.92E-01	1450
Right superior frontal gyrus	-0.057	0.026	[-0.109 - -0.005]	-1.507	7.61E-01	9.92E-01	1450
Right superior parietal cortex	0.131	0.026	[0.08 - 0.183]	3.265	4.82E-01	9.92E-01	1450
Right superior temporal gyrus	-0.030	0.026	[-0.082 - 0.022]	-0.742	8.73E-01	9.92E-01	1450
Right supramarginal gyrus	0.024	0.026	[-0.027 - 0.076]	0.752	8.96E-01	9.92E-01	1450
Right frontal pole	0.170	0.026	[0.12 - 0.223]	5.949	3.61E-01	9.92E-01	1450
Right temporal pole	0.242	0.026	[0.195 - 0.298]	7.912	1.90E-01	9.92E-01	1450
Right transverse temporal gyrus	-0.241	0.026	[-0.298 - -0.195]	-9.068	1.91E-01	9.92E-01	1450
Right insula	-0.184	0.026	[-0.238 - -0.135]	-5.184	3.20E-01	9.92E-01	1450
Left hemisphere total surface area	0.031	0.026	[-0.021 - 0.082]	0.665	8.74E-01	9.92E-01	1450
Right hemisphere total surface area	0.048	0.026	[-0.003 - 0.1]	1.051	8.04E-01	9.92E-01	1450