**Supplementary material**

**Supplementary table 1**

*Cortical thickness regions predicting PLEs, accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with family and scanner serial number as random effects, CI=confidence interval, VIF=variance inflation factor.*

|  |  |  |
| --- | --- | --- |
| Cortical thickness  | PLE change over time (slope) | Baseline  |
| β | SE  |  t-value  | p-value | β 95% CI | VIF | β | SE  |  t-value  | p-value | β 95% CI | VIF |
| Intercept  | 0.000 | 0.008 | 0.059 | 0.953 | -0.015-0.016 | --- | 0.018 | 0.027 | 0.657 | 0.511 | -0.037-0.070 | --- |
| Baseline symptoms (for slope analysis) | -0.820 | 0.006 | -130.558 | 0.000 | -0.832--0.808 | 1.027 | --- | --- | --- | --- | --- | --- |
| Banks of superior temporal sulcus  | 0.003 | 0.009 | 0.339 | 0.734 | -0.014-0.02 | 1.944 | -0.013 | 0.015 | -0.870 | 0.385 | -0.043-0.016 | 1.867 |
| Caudal anterior cingulate  | -0.006 | 0.008 | -0.806 | 0.421 | -0.021-0.009 | 1.518 | -0.017 | 0.013 | -1.285 | 0.199 | -0.043-0.009 | 1.492 |
| Caudal middle frontal  | 0.018 | 0.012 | 1.559 | 0.119 | -0.005-0.041 | 3.336 | -0.021 | 0.020 | -1.059 | 0.290 | -0.06-0.018 | 3.223 |
| Cuneus  | -0.005 | 0.010 | -0.459 | 0.646 | -0.024-0.015 | 2.435 | -0.019 | 0.017 | -1.143 | 0.253 | -0.053-0.014 | 2.347 |
| Entorhinal  | -0.003 | 0.007 | -0.415 | 0.678 | -0.017-0.011 | 1.334 | 0.001 | 0.012 | 0.103 | 0.918 | -0.023-0.026 | 1.331 |
| Fusiform  | -0.029 | 0.011 | -2.696 | 0.007 | -0.05--0.008 | 2.929 | -0.031 | 0.018 | -1.692 | 0.091 | -0.067-0.005 | 2.883 |
| Inferior parietal  | -0.020 | 0.015 | -1.351 | 0.177 | -0.048-0.009 | 4.933 | -0.034 | 0.025 | -1.349 | 0.178 | -0.084-0.015 | 4.225 |
| Inferior temporal  | -0.006 | 0.011 | -0.583 | 0.560 | -0.027-0.015 | 2.773 | -0.008 | 0.018 | -0.415 | 0.678 | -0.043-0.028 | 2.602 |
| Isthmus cingulate  | 0.008 | 0.007 | 1.134 | 0.257 | -0.006-0.022 | 1.258 | 0.012 | 0.012 | 0.990 | 0.322 | -0.012-0.035 | 1.256 |
| Lateral occipital  | 0.024 | 0.012 | 2.015 | 0.044 | 0.001-0.048 | 3.225 | 0.012 | 0.022 | 0.577 | 0.564 | -0.03-0.055 | 2.879 |
| Lateral orbitofrontal  | 0.012 | 0.010 | 1.211 | 0.226 | -0.007-0.031 | 2.446 | 0.025 | 0.017 | 1.477 | 0.140 | -0.008-0.058 | 2.412 |
| Lingual  | 0.008 | 0.010 | 0.853 | 0.394 | -0.011-0.027 | 2.258 | -0.002 | 0.017 | -0.148 | 0.883 | -0.035-0.03 | 2.232 |
| Medial orbitofrontal  | -0.017 | 0.009 | -1.868 | 0.062 | -0.035-0.001 | 2.079 | 0.005 | 0.016 | 0.320 | 0.749 | -0.026-0.036 | 2.040 |
| Middle temporal  | 0.014 | 0.012 | 1.209 | 0.227 | -0.009-0.038 | 3.348 | 0.000 | 0.021 | -0.003 | 0.998 | -0.041-0.04 | 2.851 |
| Parahippocampal  | -0.001 | 0.007 | -0.137 | 0.891 | -0.015-0.013 | 1.242 | -0.003 | 0.012 | -0.282 | 0.778 | -0.027-0.02 | 1.240 |
| Paracentral  | 0.011 | 0.010 | 1.053 | 0.292 | -0.009-0.031 | 2.730 | -0.027 | 0.018 | -1.518 | 0.129 | -0.062-0.008 | 2.635 |
| Pars opercularis  | -0.003 | 0.010 | -0.349 | 0.727 | -0.023-0.016 | 2.414 | 0.019 | 0.017 | 1.108 | 0.268 | -0.014-0.052 | 2.264 |
| Pars orbitalis  | -0.004 | 0.009 | -0.475 | 0.635 | -0.021-0.013 | 1.920 | 0.017 | 0.015 | 1.136 | 0.256 | -0.012-0.046 | 1.891 |
| Parstriangularis  | -0.013 | 0.010 | -1.245 | 0.213 | -0.033-0.007 | 2.609 | -0.016 | 0.018 | -0.889 | 0.374 | -0.05-0.019 | 2.427 |
| Pericalcarine  | 0.002 | 0.009 | 0.216 | 0.829 | -0.015-0.019 | 1.828 | 0.009 | 0.015 | 0.591 | 0.554 | -0.021-0.038 | 1.751 |
| Postcentral  | -0.015 | 0.010 | -1.468 | 0.142 | -0.034-0.005 | 2.408 | -0.011 | 0.017 | -0.659 | 0.510 | -0.045-0.022 | 2.197 |
| Posterior cingulate  | 0.007 | 0.008 | 0.950 | 0.343 | -0.008-0.023 | 1.549 | -0.001 | 0.013 | -0.111 | 0.912 | -0.028-0.025 | 1.518 |
| Precentral  | -0.007 | 0.012 | -0.601 | 0.548 | -0.03-0.016 | 3.358 | -0.046 | 0.020 | -2.294 | 0.022 | -0.086--0.007 | 3.029 |
| Precuneus  | -0.011 | 0.012 | -0.903 | 0.367 | -0.033-0.012 | 3.419 | 0.022 | 0.020 | 1.080 | 0.280 | -0.018-0.061 | 3.337 |
| Rostral anterior cingulate  | 0.000 | 0.008 | 0.022 | 0.983 | -0.016-0.016 | 1.691 | -0.003 | 0.014 | -0.237 | 0.813 | -0.031-0.024 | 1.697 |
| Rostral middle frontal  | 0.002 | 0.014 | 0.132 | 0.895 | -0.026-0.029 | 4.655 | -0.006 | 0.024 | -0.257 | 0.798 | -0.054-0.041 | 4.248 |
| Superior frontal  | -0.004 | 0.014 | -0.311 | 0.756 | -0.031-0.022 | 4.505 | 0.037 | 0.023 | 1.592 | 0.112 | -0.009-0.083 | 4.318 |
| Superior parietal  | 0.021 | 0.015 | 1.472 | 0.141 | -0.007-0.05 | 5.042 | 0.012 | 0.025 | 0.463 | 0.643 | -0.037-0.061 | 4.608 |
| Superior temporal  | -0.011 | 0.012 | -0.982 | 0.326 | -0.034-0.011 | 3.288 | 0.036 | 0.020 | 1.788 | 0.074 | -0.003-0.075 | 2.986 |
| Supramarginal  | 0.000 | 0.014 | 0.023 | 0.981 | -0.026-0.027 | 4.161 | 0.024 | 0.024 | 1.008 | 0.314 | -0.023-0.071 | 3.352 |
| Frontal pole  | 0.006 | 0.008 | 0.748 | 0.455 | -0.009-0.021 | 1.500 | -0.002 | 0.013 | -0.188 | 0.851 | -0.028-0.023 | 1.461 |
| Temporal pole  | 0.008 | 0.008 | 0.971 | 0.332 | -0.008-0.023 | 1.582 | -0.015 | 0.013 | -1.118 | 0.264 | -0.041-0.011 | 1.563 |
| Transverse temporal  | 0.019 | 0.008 | 2.318 | 0.021 | 0.003-0.035 | 1.756 | 0.006 | 0.014 | 0.410 | 0.682 | -0.022-0.034 | 1.799 |
| Insula  | 0.013 | 0.008 | 1.587 | 0.113 | -0.003-0.029 | 1.747 | 0.014 | 0.014 | 0.948 | 0.343 | -0.015-0.042 | 1.739 |
| Age  | -0.001 | 0.006 | -0.204 | 0.838 | -0.014-0.011 | 1.040 | -0.046 | 0.011 | -4.318 | 0.000 | -0.068--0.025 | 1.036 |
| Sex  | -0.007 | 0.007 | -1.013 | 0.311 | -0.02-0.006 | 1.203 | -0.002 | 0.012 | -0.175 | 0.861 | -0.025-0.021 | 1.205 |
| Family income | -0.012 | 0.007 | -1.678 | 0.094 | -0.026-0.002 | 1.228 | -0.065 | 0.013 | -5.172 | 0.000 | -0.089--0.04 | 1.190 |
| Race | 0.001 | 0.008 | 0.162 | 0.871 | -0.014-0.016 | 1.318 | 0.065 | 0.013 | 4.881 | 0.000 | 0.039-0.091 | 1.276 |
| Medication | 0.001 | 0.006 | 0.094 | 0.926 | -0.012-0.013 | 1.028 | 0.063 | 0.011 | 5.831 | 0.000 | 0.042-0.084 | 1.024 |

**Supplementary table 2**

*Cortical surface area regions predicting PLEs,*

*accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with family and scanner serial number as random effects, CI=confidence interval, VIF=variance inflation factor.*

|  |  |  |
| --- | --- | --- |
| Cortical surface area | PLE change over time (slope) | Baseline |
| β | SE  |  t-value  | p-value | β 95% CI | VIF | β | SE  |  t-value  | p-value | β 95% CI | VIF |
| Intercept  | 0.000 | 0.008 | 0.049 | 0.961 | -0.015-0.015 | --- | 0.021 | 0.028 | 0.749 | 0.454 | -0.034-0.075 | --- |
| Baseline symptoms (for slope analysis) | -0.820 | 0.006 | -130.599 | 0.000 | -0.832--0.808 | --- | --- | --- | --- | --- | --- | --- |
| Banks of superior temporal sulcus  | -0.011 | 0.009 | -1.196 | 0.232 | -0.029-0.007 | 1.026 | 0.016 | 0.016 | 1.038 | 0.300 | -0.015-0.047 | 2.101 |
| Caudal anterior cingulate  | -0.002 | 0.010 | -0.189 | 0.850 | -0.021-0.017 | 2.158 | 0.010 | 0.016 | 0.590 | 0.555 | -0.022-0.042 | 2.354 |
| Caudal middle frontal  | -0.003 | 0.010 | -0.333 | 0.739 | -0.022-0.016 | 2.362 | -0.021 | 0.016 | -1.291 | 0.197 | -0.053-0.011 | 2.241 |
| Cuneus  | 0.001 | 0.011 | 0.050 | 0.960 | -0.02-0.022 | 2.327 | 0.031 | 0.018 | 1.689 | 0.092 | -0.005-0.067 | 2.957 |
| Entorhinal  | 0.006 | 0.008 | 0.820 | 0.413 | -0.009-0.021 | 2.951 | 0.014 | 0.013 | 1.028 | 0.304 | -0.012-0.04 | 1.539 |
| Fusiform  | -0.004 | 0.011 | -0.356 | 0.722 | -0.025-0.017 | 1.541 | -0.030 | 0.018 | -1.639 | 0.102 | -0.067-0.006 | 2.974 |
| Inferior parietal  | 0.004 | 0.011 | 0.345 | 0.730 | -0.017-0.025 | 2.976 | 0.017 | 0.018 | 0.913 | 0.362 | -0.019-0.053 | 2.830 |
| Inferior temporal  | 0.019 | 0.012 | 1.559 | 0.119 | -0.005-0.044 | 2.925 | 0.001 | 0.021 | 0.046 | 0.964 | -0.041-0.043 | 3.801 |
| Isthmus cingulate  | 0.000 | 0.010 | -0.048 | 0.962 | -0.019-0.018 | 3.914 | 0.004 | 0.016 | 0.239 | 0.811 | -0.028-0.036 | 2.327 |
| Lateral occipital  | -0.009 | 0.010 | -0.880 | 0.379 | -0.029-0.011 | 2.331 | 0.003 | 0.018 | 0.195 | 0.846 | -0.031-0.038 | 2.605 |
| Lateral orbitofrontal  | -0.009 | 0.012 | -0.735 | 0.463 | -0.032-0.015 | 2.645 | -0.024 | 0.021 | -1.154 | 0.249 | -0.065-0.017 | 3.678 |
| Lingual  | 0.005 | 0.011 | 0.429 | 0.668 | -0.017-0.026 | 3.691 | -0.018 | 0.019 | -0.937 | 0.349 | -0.054-0.019 | 3.076 |
| Medial orbitofrontal  | 0.001 | 0.011 | 0.057 | 0.955 | -0.02-0.022 | 3.047 | 0.014 | 0.018 | 0.756 | 0.450 | -0.022-0.05 | 2.904 |
| Middle temporal  | -0.029 | 0.014 | -2.102 | 0.036 | -0.057--0.002 | 2.927 | -0.033 | 0.024 | -1.381 | 0.168 | -0.08-0.014 | 4.743 |
| Parahippocampal  | 0.002 | 0.008 | 0.296 | 0.767 | -0.013-0.018 | 4.936 | 0.004 | 0.014 | 0.277 | 0.782 | -0.023-0.031 | 1.707 |
| Paracentral  | 0.013 | 0.009 | 1.490 | 0.136 | -0.004-0.03 | 1.702 | 0.023 | 0.015 | 1.563 | 0.118 | -0.006-0.053 | 1.991 |
| Pars opercularis  | -0.001 | 0.009 | -0.085 | 0.933 | -0.018-0.017 | 1.986 | 0.004 | 0.015 | 0.237 | 0.813 | -0.026-0.033 | 1.966 |
| Pars orbitalis  | 0.006 | 0.010 | 0.554 | 0.579 | -0.015-0.026 | 2.011 | -0.001 | 0.018 | -0.053 | 0.958 | -0.036-0.034 | 2.729 |
| Parstriangularis  | 0.007 | 0.009 | 0.814 | 0.416 | -0.01-0.024 | 2.759 | -0.007 | 0.015 | -0.471 | 0.638 | -0.036-0.022 | 1.857 |
| Pericalcarine  | -0.006 | 0.012 | -0.496 | 0.620 | -0.028-0.017 | 1.891 | -0.006 | 0.020 | -0.284 | 0.777 | -0.044-0.033 | 3.419 |
| Postcentral  | -0.005 | 0.011 | -0.435 | 0.664 | -0.026-0.017 | 3.436 | -0.020 | 0.019 | -1.058 | 0.290 | -0.057-0.017 | 2.937 |
| Posterior cingulate  | 0.002 | 0.010 | 0.179 | 0.858 | -0.017-0.021 | 3.053 | 0.010 | 0.017 | 0.600 | 0.548 | -0.023-0.042 | 2.422 |
| Precentral  | -0.006 | 0.011 | -0.578 | 0.564 | -0.028-0.015 | 2.409 | 0.003 | 0.019 | 0.182 | 0.855 | -0.033-0.04 | 2.863 |
| Precuneus  | 0.015 | 0.011 | 1.375 | 0.169 | -0.006-0.037 | 2.966 | -0.009 | 0.019 | -0.456 | 0.649 | -0.046-0.029 | 3.178 |
| Rostral anterior cingulate  | 0.009 | 0.010 | 0.910 | 0.363 | -0.011-0.03 | 3.116 | -0.001 | 0.018 | -0.042 | 0.966 | -0.035-0.034 | 2.747 |
| Rostral middle frontal  | -0.007 | 0.012 | -0.604 | 0.546 | -0.03-0.016 | 2.726 | -0.007 | 0.020 | -0.358 | 0.720 | -0.047-0.033 | 3.364 |
| Superior frontal  | 0.006 | 0.014 | 0.384 | 0.701 | -0.023-0.034 | 3.474 | -0.048 | 0.025 | -1.966 | 0.050 | -0.096-0 | 5.048 |
| Superior parietal  | 0.002 | 0.010 | 0.214 | 0.830 | -0.018-0.023 | 5.212 | 0.020 | 0.018 | 1.107 | 0.269 | -0.015-0.055 | 2.660 |
| Superior temporal  | 0.016 | 0.014 | 1.156 | 0.248 | -0.011-0.043 | 2.705 | -0.009 | 0.024 | -0.372 | 0.710 | -0.056-0.038 | 4.722 |
| Supramarginal  | 0.003 | 0.011 | 0.322 | 0.748 | -0.018-0.025 | 4.893 | 0.032 | 0.019 | 1.703 | 0.089 | -0.005-0.068 | 2.863 |
| Frontal pole  | 0.008 | 0.008 | 1.031 | 0.303 | -0.007-0.024 | 2.954 | 0.010 | 0.014 | 0.762 | 0.446 | -0.016-0.037 | 1.621 |
| Temporal pole  | -0.007 | 0.008 | -0.819 | 0.413 | -0.022-0.009 | 1.605 | 0.018 | 0.014 | 1.345 | 0.179 | -0.008-0.045 | 1.653 |
| Transverse temporal  | -0.006 | 0.009 | -0.618 | 0.537 | -0.024-0.012 | 1.647 | 0.026 | 0.016 | 1.663 | 0.097 | -0.005-0.058 | 2.222 |
| Insula  | -0.007 | 0.010 | -0.712 | 0.476 | -0.028-0.013 | 2.216 | -0.001 | 0.018 | -0.053 | 0.958 | -0.036-0.035 | 2.809 |
| Age  | -0.002 | 0.006 | -0.248 | 0.804 | -0.014-0.011 | 2.757 | -0.047 | 0.011 | -4.402 | 0.000 | -0.068--0.026 | 1.010 |
| Sex  | -0.008 | 0.008 | -1.090 | 0.276 | -0.023-0.007 | 1.014 | 0.001 | 0.013 | 0.064 | 0.949 | -0.025-0.026 | 1.487 |
| Family income | -0.012 | 0.007 | -1.628 | 0.104 | -0.026-0.002 | 1.477 | -0.066 | 0.013 | -5.270 | 0.000 | -0.091--0.042 | 1.201 |
| Race | -0.001 | 0.008 | -0.079 | 0.937 | -0.015-0.014 | 1.243 | 0.065 | 0.013 | 4.938 | 0.000 | 0.039-0.092 | 1.260 |
| Medications | 0.000 | 0.006 | 0.046 | 0.964 | -0.012-0.013 | 1.309 | 0.064 | 0.011 | 5.896 | 0.000 | 0.042-0.085 | 1.025 |

**Supplementary Table 3**

*Cortical thickness regions predicting depressive symptoms, accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects with family and scanner serial number as random effects, CI=confidence interval, VIF=variance inflation factor.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Cortical thickness  | Depressive symptom change over time (slope) |  |  | Baseline |  |  |
| β | SE  |  t-value  | p-value | β 95% CI | VIF | β | SE  |  t-value  | p-value | β 95% CI | VIF |
| Intercept | **0.002** | **0.014** | **0.151** | **0.880** | -0.025-0.029 | --- | -0.002 | 0.024 | -0.099 | 0.921 | -0.049-0.044 | --- |
| Baseline symptoms (for slope analysis) | 0.508 | 0.009 | 53.783 | 0.000 | 0.49-0.527 | 1.032 | --- | --- | --- | --- | --- | --- |
| Banks of superior temporal sulcus  | -0.002 | 0.013 | -0.173 | 0.863 | -0.028-0.024 | 1.033 | -0.029 | 0.015 | -1.909 | 0.057 | -0.058-0.001 | 1.873 |
| Caudal anterior cingulate  | -0.002 | 0.012 | -0.164 | 0.869 | -0.025-0.021 | 1.945 | -0.024 | 0.013 | -1.784 | 0.075 | -0.049-0.002 | 1.493 |
| Caudal middle frontal  | -0.006 | 0.017 | -0.354 | 0.723 | -0.04-0.028 | 1.525 | 0.022 | 0.020 | 1.134 | 0.257 | -0.016-0.061 | 3.230 |
| Cuneus  | 0.000 | 0.015 | 0.032 | 0.975 | -0.029-0.03 | 3.330 | 0.018 | 0.017 | 1.039 | 0.299 | -0.016-0.051 | 2.351 |
| Entorhinal  | 0.014 | 0.011 | 1.323 | 0.186 | -0.007-0.036 | 2.438 | -0.012 | 0.012 | -0.983 | 0.326 | -0.036-0.012 | 1.330 |
| Fusiform  | -0.024 | 0.016 | -1.466 | 0.143 | -0.055-0.008 | 1.337 | 0.003 | 0.018 | 0.167 | 0.868 | -0.033-0.039 | 2.881 |
| Inferior parietal  | -0.011 | 0.022 | -0.498 | 0.619 | -0.054-0.032 | 2.957 | -0.025 | 0.025 | -0.996 | 0.319 | -0.075-0.024 | 4.306 |
| Inferior temporal  | 0.026 | 0.016 | 1.625 | 0.104 | -0.005-0.057 | 4.778 | -0.042 | 0.018 | -2.333 | 0.020 | -0.078--0.007 | 2.619 |
| Isthmus cingulate  | 0.001 | 0.010 | 0.098 | 0.922 | -0.019-0.022 | 2.757 | 0.020 | 0.012 | 1.654 | 0.098 | -0.004-0.043 | 1.255 |
| Lateral occipital  | 0.009 | 0.018 | 0.502 | 0.616 | -0.027-0.045 | 1.263 | 0.027 | 0.021 | 1.257 | 0.209 | -0.015-0.069 | 2.905 |
| Lateral orbitofrontal  | -0.001 | 0.015 | -0.041 | 0.968 | -0.03-0.028 | 3.140 | -0.016 | 0.017 | -0.957 | 0.339 | -0.049-0.017 | 2.411 |
| Lingual  | 0.003 | 0.014 | 0.184 | 0.854 | -0.026-0.031 | 2.465 | 0.008 | 0.017 | 0.489 | 0.625 | -0.024-0.041 | 2.225 |
| Medial orbitofrontal  | 0.011 | 0.014 | 0.829 | 0.407 | -0.016-0.038 | 2.267 | 0.001 | 0.016 | 0.083 | 0.934 | -0.03-0.032 | 2.039 |
| Middle temporal  | 0.005 | 0.018 | 0.265 | 0.791 | -0.031-0.04 | 2.084 | 0.043 | 0.021 | 2.106 | 0.035 | 0.003-0.084 | 2.906 |
| Parahippocampal  | 0.001 | 0.010 | 0.130 | 0.897 | -0.019-0.022 | 3.241 | 0.014 | 0.012 | 1.160 | 0.246 | -0.01-0.037 | 1.239 |
| Paracentral  | 0.011 | 0.016 | 0.733 | 0.464 | -0.019-0.042 | 1.246 | -0.022 | 0.018 | -1.226 | 0.221 | -0.057-0.013 | 2.643 |
| Pars opercularis  | -0.015 | 0.015 | -1.035 | 0.301 | -0.044-0.014 | 2.728 | 0.002 | 0.017 | 0.125 | 0.900 | -0.031-0.035 | 2.280 |
| Pars orbitalis  | -0.016 | 0.013 | -1.192 | 0.233 | -0.041-0.01 | 2.389 | 0.015 | 0.015 | 1.033 | 0.302 | -0.014-0.044 | 1.891 |
| Parstriangularis  | 0.003 | 0.016 | 0.196 | 0.844 | -0.027-0.033 | 1.936 | -0.010 | 0.018 | -0.588 | 0.556 | -0.045-0.024 | 2.445 |
| Pericalcarine  | -0.008 | 0.013 | -0.629 | 0.530 | -0.034-0.017 | 2.588 | 0.008 | 0.015 | 0.524 | 0.600 | -0.022-0.037 | 1.757 |
| Postcentral  | 0.012 | 0.015 | 0.822 | 0.411 | -0.017-0.042 | 1.811 | -0.045 | 0.017 | -2.609 | 0.009 | -0.079--0.011 | 2.219 |
| Posterior cingulate  | -0.013 | 0.012 | -1.105 | 0.269 | -0.036-0.01 | 2.365 | 0.018 | 0.013 | 1.324 | 0.186 | -0.009-0.044 | 1.520 |
| Precentral  | 0.019 | 0.018 | 1.045 | 0.296 | -0.016-0.053 | 1.556 | -0.004 | 0.020 | -0.205 | 0.838 | -0.044-0.036 | 3.065 |
| Precuneus  | 0.024 | 0.018 | 1.388 | 0.165 | -0.01-0.059 | 3.283 | 0.016 | 0.020 | 0.822 | 0.411 | -0.023-0.056 | 3.338 |
| Rostral anterior cingulate  | -0.008 | 0.012 | -0.637 | 0.524 | -0.032-0.016 | 3.436 | 0.009 | 0.014 | 0.636 | 0.525 | -0.019-0.036 | 1.693 |
| Rostral middle frontal  | -0.028 | 0.021 | -1.325 | 0.185 | -0.069-0.013 | 1.710 | 0.039 | 0.024 | 1.610 | 0.108 | -0.009-0.086 | 4.288 |
| Superior frontal  | 0.024 | 0.020 | 1.176 | 0.240 | -0.016-0.064 | 4.583 | -0.057 | 0.023 | -2.426 | 0.015 | -0.103--0.011 | 4.334 |
| Superior parietal  | -0.025 | 0.022 | -1.131 | 0.258 | -0.068-0.018 | 4.497 | 0.007 | 0.025 | 0.287 | 0.774 | -0.042-0.056 | 4.649 |
| Superior temporal  | -0.024 | 0.018 | -1.380 | 0.168 | -0.059-0.01 | 4.977 | 0.011 | 0.020 | 0.552 | 0.581 | -0.028-0.051 | 3.018 |
| Supramarginal  | 0.021 | 0.021 | 1.000 | 0.318 | -0.02-0.061 | 3.227 | 0.038 | 0.024 | 1.609 | 0.108 | -0.008-0.085 | 3.444 |
| Frontal pole  | -0.017 | 0.012 | -1.472 | 0.141 | -0.04-0.006 | 3.961 | 0.002 | 0.013 | 0.154 | 0.877 | -0.024-0.028 | 1.464 |
| Temporal pole  | 0.004 | 0.012 | 0.359 | 0.720 | -0.019-0.027 | 1.501 | -0.014 | 0.013 | -1.067 | 0.286 | -0.041-0.012 | 1.564 |
| Transverse temporal  | -0.006 | 0.012 | -0.443 | 0.658 | -0.03-0.019 | 1.590 | -0.007 | 0.014 | -0.520 | 0.603 | -0.036-0.021 | 1.789 |
| Insula  | 0.003 | 0.012 | 0.227 | 0.820 | -0.022-0.027 | 1.780 | 0.018 | 0.014 | 1.240 | 0.215 | -0.01-0.046 | 1.738 |
| Age  | 0.016 | 0.009 | 1.714 | 0.087 | -0.002-0.035 | 1.748 | 0.004 | 0.011 | 0.362 | 0.718 | -0.017-0.025 | 1.037 |
| Sex  | -0.030 | 0.010 | -2.911 | 0.004 | -0.05--0.01 | 1.036 | 0.027 | 0.012 | 2.291 | 0.022 | 0.004-0.05 | 1.204 |
| Family income | -0.001 | 0.011 | -0.140 | 0.889 | -0.022-0.019 | 1.209 | -0.034 | 0.013 | -2.740 | 0.006 | -0.059--0.01 | 1.193 |
| Race | -0.003 | 0.011 | -0.302 | 0.763 | -0.025-0.019 | 1.214 | 0.004 | 0.013 | 0.309 | 0.757 | -0.022-0.03 | 1.279 |
| Medication | -0.001 | 0.010 | -0.149 | 0.881 | -0.02-0.017 | 1.306 | 0.146 | 0.011 | 13.530 | 0.000 | 0.125-0.167 | 1.024 |

**Supplementary Table 4**

*Cortical surface area regions predicting depressive symptoms, accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects with family and scanner serial number as random effects, CI=confidence interval, VIF=variance inflation factor.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Surface area  | Depressive symptom change over time |  |  | Baseline depressive symptoms |  |  |
| β | SE  |  t-value  | p-value | β 95% CI | VIF | β | SE  |  t-value  | p-value | β 95% CI | VIF |
| Intercept | 0.002 | 0.014 | 0.117 | 0.907 | -0.026-0.029 | --- | -0.002 | 0.024 | -0.081 | 0.935 | -0.05-0.046 | -- |
| Baseline symptoms (for slope analysis) | 0.507 | 0.009 | 53.450 | 0.000 | 0.488-0.525 | 1.032 | --- | --- | --- | --- | --- | -- |
| Banks of superior temporal sulcus  | 0.010 | 0.014 | 0.734 | 0.463 | -0.017-0.037 | 2.164 | 0.016 | 0.016 | 1.020 | 0.308 | -0.015-0.047 | 2.103 |
| Caudal anterior cingulate  | 0.010 | 0.014 | 0.673 | 0.501 | -0.019-0.038 | 2.389 | -0.007 | 0.016 | -0.436 | 0.663 | -0.039-0.025 | 2.350 |
| Caudal middle frontal  | 0.012 | 0.014 | 0.819 | 0.413 | -0.017-0.04 | 2.327 | 0.006 | 0.016 | 0.352 | 0.725 | -0.026-0.038 | 2.244 |
| Cuneus  | 0.001 | 0.016 | 0.069 | 0.945 | -0.031-0.033 | 2.983 | 0.013 | 0.018 | 0.723 | 0.470 | -0.023-0.049 | 2.951 |
| Entorhinal  | 0.017 | 0.012 | 1.474 | 0.141 | -0.006-0.04 | 1.554 | 0.029 | 0.013 | 2.217 | 0.027 | 0.003-0.055 | 1.538 |
| Fusiform  | 0.004 | 0.016 | 0.276 | 0.783 | -0.027-0.036 | 3.015 | -0.005 | 0.018 | -0.297 | 0.766 | -0.042-0.031 | 2.968 |
| Inferior parietal  | -0.011 | 0.016 | -0.661 | 0.509 | -0.043-0.021 | 2.926 | -0.001 | 0.018 | -0.046 | 0.963 | -0.037-0.035 | 2.833 |
| Inferior temporal  | -0.013 | 0.019 | -0.707 | 0.480 | -0.05-0.024 | 3.942 | -0.031 | 0.021 | -1.457 | 0.145 | -0.073-0.011 | 3.803 |
| Isthmus cingulate  | 0.005 | 0.014 | 0.363 | 0.716 | -0.023-0.033 | 2.351 | -0.003 | 0.016 | -0.192 | 0.848 | -0.035-0.029 | 2.324 |
| Lateral occipital  | 0.004 | 0.015 | 0.231 | 0.818 | -0.027-0.034 | 2.656 | -0.007 | 0.018 | -0.401 | 0.689 | -0.042-0.028 | 2.604 |
| Lateral orbitofrontal  | 0.000 | 0.018 | 0.014 | 0.989 | -0.035-0.036 | 3.729 | 0.005 | 0.021 | 0.236 | 0.814 | -0.036-0.045 | 3.672 |
| Lingual  | -0.001 | 0.016 | -0.057 | 0.955 | -0.033-0.031 | 3.091 | 0.029 | 0.019 | 1.561 | 0.119 | -0.008-0.066 | 3.066 |
| Medial orbitofrontal  | -0.016 | 0.016 | -0.964 | 0.335 | -0.047-0.016 | 2.968 | -0.002 | 0.018 | -0.112 | 0.911 | -0.038-0.034 | 2.899 |
| Middle temporal  | 0.001 | 0.021 | 0.070 | 0.945 | -0.04-0.043 | 4.951 | -0.026 | 0.024 | -1.069 | 0.285 | -0.073-0.021 | 4.750 |
| Parahippocampal  | -0.016 | 0.012 | -1.332 | 0.183 | -0.04-0.008 | 1.719 | -0.035 | 0.014 | -2.525 | 0.012 | -0.062--0.008 | 1.705 |
| Paracentral  | -0.005 | 0.013 | -0.376 | 0.707 | -0.031-0.021 | 2.001 | 0.007 | 0.015 | 0.448 | 0.654 | -0.023-0.036 | 1.989 |
| Pars opercularis  | 0.018 | 0.013 | 1.315 | 0.189 | -0.009-0.044 | 2.018 | 0.004 | 0.015 | 0.235 | 0.814 | -0.026-0.033 | 1.967 |
| Pars orbitalis  | 0.019 | 0.016 | 1.207 | 0.228 | -0.012-0.05 | 2.782 | 0.014 | 0.018 | 0.803 | 0.422 | -0.021-0.049 | 2.727 |
| Pars triangularis  | 0.003 | 0.013 | 0.260 | 0.795 | -0.022-0.029 | 1.892 | 0.005 | 0.015 | 0.355 | 0.723 | -0.024-0.034 | 1.858 |
| Pericalcarine  | -0.009 | 0.017 | -0.533 | 0.594 | -0.043-0.025 | 3.463 | -0.008 | 0.020 | -0.381 | 0.703 | -0.046-0.031 | 3.416 |
| Postcentral  | 0.005 | 0.017 | 0.324 | 0.746 | -0.027-0.038 | 3.053 | -0.003 | 0.019 | -0.144 | 0.885 | -0.04-0.034 | 2.941 |
| Posterior cingulate  | -0.013 | 0.015 | -0.878 | 0.380 | -0.041-0.016 | 2.445 | 0.053 | 0.017 | 3.208 | 0.001 | 0.021-0.086 | 2.416 |
| Precentral  | 0.024 | 0.016 | 1.492 | 0.136 | -0.008-0.057 | 2.965 | -0.050 | 0.019 | -2.693 | 0.007 | -0.087--0.014 | 2.867 |
| Precuneus  | -0.002 | 0.017 | -0.139 | 0.890 | -0.035-0.03 | 3.169 | 0.011 | 0.019 | 0.596 | 0.551 | -0.026-0.049 | 3.163 |
| Rostral anterior cingulate  | 0.002 | 0.016 | 0.143 | 0.886 | -0.028-0.033 | 2.774 | -0.007 | 0.018 | -0.416 | 0.677 | -0.042-0.027 | 2.737 |
| Rostral middle frontal  | -0.016 | 0.018 | -0.920 | 0.358 | -0.051-0.019 | 3.471 | -0.011 | 0.020 | -0.550 | 0.582 | -0.051-0.029 | 3.367 |
| Superior frontal  | 0.014 | 0.022 | 0.647 | 0.518 | -0.028-0.056 | 5.236 | 0.026 | 0.025 | 1.063 | 0.288 | -0.022-0.074 | 5.052 |
| Superior parietal  | -0.006 | 0.016 | -0.393 | 0.694 | -0.037-0.025 | 2.719 | 0.003 | 0.018 | 0.195 | 0.845 | -0.032-0.039 | 2.657 |
| Superior temporal  | -0.013 | 0.021 | -0.603 | 0.546 | -0.054-0.029 | 4.908 | -0.005 | 0.024 | -0.216 | 0.829 | -0.052-0.042 | 4.727 |
| Supramarginal  | 0.020 | 0.016 | 1.252 | 0.211 | -0.012-0.053 | 2.951 | 0.018 | 0.019 | 0.982 | 0.327 | -0.018-0.055 | 2.865 |
| Frontal pole  | -0.008 | 0.012 | -0.647 | 0.518 | -0.031-0.016 | 1.629 | 0.018 | 0.014 | 1.299 | 0.194 | -0.009-0.044 | 1.616 |
| Temporal pole  | -0.010 | 0.012 | -0.815 | 0.416 | -0.033-0.014 | 1.664 | -0.016 | 0.014 | -1.183 | 0.237 | -0.043-0.011 | 1.650 |
| Transverse temporal  | -0.007 | 0.014 | -0.526 | 0.599 | -0.035-0.02 | 2.248 | -0.005 | 0.016 | -0.317 | 0.751 | -0.036-0.026 | 2.216 |
| Insula  | -0.014 | 0.016 | -0.886 | 0.376 | -0.045-0.017 | 2.800 | -0.019 | 0.018 | -1.080 | 0.281 | -0.055-0.016 | 2.799 |
| Age  | 0.017 | 0.009 | 1.855 | 0.064 | -0.001-0.036 | 1.011 | 0.002 | 0.011 | 0.231 | 0.818 | -0.018-0.023 | 1.011 |
| Sex  | -0.032 | 0.011 | -2.861 | 0.004 | -0.055--0.01 | 1.480 | 0.036 | 0.013 | 2.781 | 0.006 | 0.011-0.062 | 1.486 |
| Family income | -0.003 | 0.011 | -0.318 | 0.750 | -0.024-0.018 | 1.225 | -0.035 | 0.013 | -2.776 | 0.006 | -0.06--0.01 | 1.204 |
| Race | -0.001 | 0.011 | -0.116 | 0.908 | -0.023-0.021 | 1.288 | -0.001 | 0.013 | -0.042 | 0.967 | -0.027-0.025 | 1.263 |
| Medications | -0.002 | 0.010 | -0.217 | 0.829 | -0.021-0.017 | 1.047 | 0.145 | 0.011 | 13.422 | 0.000 | 0.123-0.166 | 1.024 |

**Supplementary Table 5**

*Cortical thickness regions predicting anxiety symptoms,*

*accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with family and scanner serial number as random effects, CI=confidence interval, VIF=variance inflation factor.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Cortical thickness | Anxiety symptom change over time |  |  | Baseline |  |  |
| β | SE  |  t-value  | p-value | β 95% CI | VIF | β | SE  |  t-value  | p-value | β 95% CI | VIF |
| Intercept | 0.006 | 0.016 | 0.387 | 0.699 | -0.025-0.038 |  | 0.001 | 0.026 | 0.035 | 0.972 |  |  |
| Baseline symptoms (for slope analysis) | -0.254 | 0.011 | -24.158 | 0.000 | -0.274--0.233 | 1.021 | -0.001 | 0.015 | -0.055 | 0.956 | -0.049-0.051 |  |
| Banks of superior temporal sulcus  | 0.004 | 0.015 | 0.264 | 0.792 | -0.025-0.033 | 1.937 | 0.004 | 0.013 | 0.311 | 0.756 | -0.03-0.029 | 1.866 |
| Caudal anterior cingulate  | -0.015 | 0.013 | -1.172 | 0.241 | -0.041-0.01 | 1.522 | 0.007 | 0.020 | 0.340 | 0.734 | -0.022-0.03 | 1.491 |
| Caudal middle frontal  | 0.038 | 0.019 | 1.967 | 0.049 | 0-0.076 | 3.319 | 0.005 | 0.017 | 0.283 | 0.777 | -0.032-0.046 | 3.221 |
| Cuneus  | -0.002 | 0.017 | -0.150 | 0.881 | -0.035-0.03 | 2.430 | -0.011 | 0.012 | -0.879 | 0.380 | -0.029-0.038 | 2.344 |
| Entorhinal  | 0.001 | 0.012 | 0.069 | 0.945 | -0.023-0.025 | 1.336 | -0.011 | 0.018 | -0.570 | 0.569 | -0.035-0.013 | 1.330 |
| Fusiform  | -0.038 | 0.018 | -2.077 | 0.038 | -0.073--0.002 | 2.953 | -0.025 | 0.025 | -0.999 | 0.318 | -0.047-0.026 | 2.876 |
| Inferior parietal  | -0.052 | 0.025 | -2.115 | 0.035 | -0.101--0.004 | 4.714 | -0.021 | 0.018 | -1.148 | 0.251 | -0.075-0.024 | 4.252 |
| Inferior temporal  | -0.009 | 0.018 | -0.511 | 0.609 | -0.044-0.026 | 2.740 | 0.039 | 0.012 | 3.254 | 0.001 | -0.057-0.015 | 2.604 |
| Isthmus cingulate  | -0.003 | 0.012 | -0.218 | 0.828 | -0.025-0.02 | 1.265 | 0.040 | 0.022 | 1.866 | 0.062 | 0.015-0.062 | 1.255 |
| Lateral occipital  | -0.008 | 0.021 | -0.391 | 0.696 | -0.048-0.032 | 3.106 | 0.009 | 0.017 | 0.517 | 0.605 | -0.002-0.083 | 2.884 |
| Lateral orbitofrontal  | 0.006 | 0.017 | 0.358 | 0.720 | -0.026-0.038 | 2.461 | -0.002 | 0.017 | -0.107 | 0.915 | -0.024-0.042 | 2.407 |
| Lingual  | -0.012 | 0.016 | -0.715 | 0.474 | -0.043-0.02 | 2.262 | -0.006 | 0.016 | -0.403 | 0.687 | -0.035-0.031 | 2.225 |
| Medial orbitofrontal  | 0.022 | 0.015 | 1.406 | 0.160 | -0.009-0.052 | 2.080 | 0.035 | 0.021 | 1.671 | 0.095 | -0.038-0.025 | 2.037 |
| Middle temporal  | 0.035 | 0.020 | 1.723 | 0.085 | -0.005-0.075 | 3.196 | 0.002 | 0.012 | 0.187 | 0.852 | -0.006-0.075 | 2.868 |
| Parahippocampal  | 0.009 | 0.012 | 0.748 | 0.454 | -0.014-0.032 | 1.246 | -0.019 | 0.018 | -1.087 | 0.277 | -0.021-0.026 | 1.239 |
| Paracentral  | 0.008 | 0.018 | 0.444 | 0.657 | -0.027-0.042 | 2.719 | 0.007 | 0.017 | 0.407 | 0.684 | -0.054-0.016 | 2.635 |
| Pars opercularis  | -0.002 | 0.017 | -0.115 | 0.908 | -0.034-0.031 | 2.376 | -0.001 | 0.015 | -0.058 | 0.954 | -0.026-0.04 | 2.268 |
| Pars orbitalis  | -0.005 | 0.015 | -0.347 | 0.729 | -0.034-0.024 | 1.933 | 0.002 | 0.018 | 0.093 | 0.926 | -0.03-0.028 | 1.887 |
| Pars triangularis  | -0.016 | 0.017 | -0.944 | 0.345 | -0.05-0.018 | 2.571 | 0.012 | 0.015 | 0.774 | 0.439 | -0.033-0.036 | 2.429 |
| Pericalcarine  | 0.003 | 0.015 | 0.239 | 0.811 | -0.025-0.032 | 1.804 | -0.016 | 0.017 | -0.932 | 0.351 | -0.018-0.041 | 1.752 |
| Postcentral  | -0.010 | 0.017 | -0.621 | 0.535 | -0.043-0.023 | 2.345 | -0.022 | 0.013 | -1.641 | 0.101 | -0.05-0.018 | 2.203 |
| Posterior cingulate  | 0.026 | 0.013 | 1.953 | 0.051 | 0-0.051 | 1.553 | -0.017 | 0.020 | -0.836 | 0.403 | -0.048-0.004 | 1.517 |
| Precentral  | -0.017 | 0.020 | -0.845 | 0.398 | -0.056-0.022 | 3.253 | 0.040 | 0.020 | 1.977 | 0.048 | -0.057-0.023 | 3.041 |
| Precuneus  | 0.035 | 0.020 | 1.781 | 0.075 | -0.004-0.074 | 3.429 | 0.001 | 0.014 | 0.041 | 0.967 | 0-0.079 | 3.331 |
| Rostral anterior cingulate  | -0.003 | 0.014 | -0.182 | 0.856 | -0.029-0.024 | 1.710 | 0.032 | 0.024 | 1.300 | 0.194 | -0.027-0.028 | 1.693 |
| Rostral middle frontal  | -0.048 | 0.024 | -2.043 | 0.041 | -0.095--0.002 | 4.545 | -0.048 | 0.024 | -2.040 | 0.042 | -0.016-0.079 | 4.257 |
| Superior frontal  | -0.003 | 0.023 | -0.139 | 0.890 | -0.048-0.042 | 4.479 | -0.006 | 0.025 | -0.221 | 0.825 | -0.094--0.002 | 4.318 |
| Superior parietal  | 0.017 | 0.025 | 0.708 | 0.479 | -0.031-0.065 | 4.937 | -0.020 | 0.020 | -0.993 | 0.321 | -0.055-0.044 | 4.615 |
| Superior temporal  | 0.017 | 0.020 | 0.852 | 0.394 | -0.022-0.055 | 3.200 | 0.040 | 0.024 | 1.693 | 0.091 | -0.06-0.02 | 2.995 |
| Supramarginal  | -0.001 | 0.023 | -0.026 | 0.979 | -0.046-0.045 | 3.887 | -0.020 | 0.013 | -1.498 | 0.135 | -0.006-0.087 | 3.385 |
| Frontal pole  | 0.001 | 0.013 | 0.074 | 0.941 | -0.024-0.026 | 1.498 | -0.003 | 0.013 | -0.194 | 0.846 | -0.046-0.006 | 1.460 |
| Temporal pole  | 0.020 | 0.013 | 1.514 | 0.130 | -0.006-0.046 | 1.588 | 0.004 | 0.014 | 0.282 | 0.778 | -0.029-0.024 | 1.562 |
| Transverse temporal  | -0.005 | 0.014 | -0.355 | 0.723 | -0.032-0.022 | 1.783 | 0.009 | 0.014 | 0.629 | 0.529 | -0.024-0.032 | 1.792 |
| Insula  | 0.005 | 0.014 | 0.385 | 0.700 | -0.022-0.033 | 1.747 | -0.014 | 0.011 | -1.258 | 0.209 | -0.019-0.037 | 1.738 |
| Age  | 0.014 | 0.011 | 1.292 | 0.196 | -0.007-0.034 | 1.036 | -0.045 | 0.012 | -3.849 | 0.000 | -0.035-0.008 | 1.037 |
| Sex  | -0.038 | 0.011 | -3.342 | 0.001 | -0.06--0.016 | 1.210 | -0.028 | 0.013 | -2.248 | 0.025 | -0.068--0.022 | 1.204 |
| Family income | 0.016 | 0.012 | 1.388 | 0.165 | -0.007-0.04 | 1.211 | -0.003 | 0.013 | -0.201 | 0.841 | -0.053--0.004 | 1.191 |
| Race | -0.028 | 0.013 | -2.218 | 0.027 | -0.052--0.003 | 1.303 | 0.111 | 0.011 | 10.224 | 0.000 | -0.029-0.024 | 1.276 |
| Medications | -0.007 | 0.011 | -0.676 | 0.499 | -0.028-0.014 | 1.038 | 0.001 | 0.026 | 0.035 | 0.972 | 0.089-0.132 | 1.024 |

**Supplementary Table 6**

*Cortical surface area regions predicting anxiety symptoms,*

*accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with family and scanner serial number as random effects, CI=confidence interval, VIF=variance inflation factor.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Cortical surface area | Anxiety symptoms change over time |  |  | Baseline |  |  |
| β | SE  |  t-value  | p-value | β 95% CI | VIF | β | SE  |  t-value  | p-value | β 95% CI | VIF |
| Intercept | 0.006 | 0.017 | 0.381 | 0.703 | -0.026-0.039 |  | 0.000 | 0.026 | -0.011 | 0.991 | -0.051-0.051 |  |
| Baseline symptoms (for slope analysis) | -0.256 | 0.011 | -24.284 | 0.000 | -0.277--0.235 | 1.019 | --- | --- | --- | --- | --- |  |
| Banks of superior temporal sulcus  | 0.026 | 0.016 | 1.656 | 0.098 | -0.005-0.056 | 2.151 | 0.008 | 0.016 | 0.534 | 0.594 | -0.023-0.039 | 2.097 |
| Caudal anterior cingulate  | -0.001 | 0.016 | -0.070 | 0.944 | -0.033-0.03 | 2.382 | -0.018 | 0.016 | -1.119 | 0.263 | -0.05-0.014 | 2.347 |
| Caudal middle frontal  | 0.001 | 0.016 | 0.093 | 0.926 | -0.03-0.033 | 2.310 | 0.010 | 0.016 | 0.602 | 0.548 | -0.022-0.042 | 2.236 |
| Cuneus  | 0.011 | 0.018 | 0.611 | 0.541 | -0.024-0.046 | 2.978 | -0.010 | 0.018 | -0.517 | 0.605 | -0.046-0.027 | 2.949 |
| Entorhinal  | 0.011 | 0.013 | 0.880 | 0.379 | -0.014-0.037 | 1.551 | 0.031 | 0.013 | 2.334 | 0.020 | 0.005-0.057 | 1.536 |
| Fusiform  | 0.015 | 0.018 | 0.804 | 0.422 | -0.021-0.05 | 3.007 | -0.018 | 0.019 | -0.950 | 0.342 | -0.054-0.019 | 2.963 |
| Inferior parietal  | -0.021 | 0.018 | -1.185 | 0.236 | -0.057-0.014 | 2.906 | 0.005 | 0.019 | 0.280 | 0.780 | -0.031-0.042 | 2.825 |
| Inferior temporal  | 0.024 | 0.021 | 1.156 | 0.248 | -0.017-0.065 | 3.914 | -0.010 | 0.021 | -0.459 | 0.647 | -0.052-0.032 | 3.790 |
| Isthmus cingulate  | -0.027 | 0.016 | -1.673 | 0.095 | -0.058-0.005 | 2.346 | -0.007 | 0.016 | -0.445 | 0.656 | -0.039-0.025 | 2.321 |
| Lateral occipital  | 0.028 | 0.017 | 1.614 | 0.107 | -0.006-0.062 | 2.645 | -0.007 | 0.018 | -0.379 | 0.705 | -0.042-0.028 | 2.599 |
| Lateral orbitofrontal  | 0.000 | 0.020 | -0.017 | 0.987 | -0.04-0.04 | 3.718 | 0.009 | 0.021 | 0.413 | 0.680 | -0.032-0.049 | 3.667 |
| Lingual  | 0.014 | 0.018 | 0.782 | 0.435 | -0.022-0.05 | 3.087 | 0.030 | 0.019 | 1.580 | 0.114 | -0.007-0.067 | 3.064 |
| Medial orbitofrontal  | -0.018 | 0.018 | -1.007 | 0.314 | -0.054-0.017 | 2.955 | 0.009 | 0.018 | 0.516 | 0.606 | -0.027-0.045 | 2.893 |
| Middle temporal  | -0.035 | 0.024 | -1.478 | 0.140 | -0.081-0.011 | 4.910 | -0.022 | 0.024 | -0.935 | 0.350 | -0.07-0.025 | 4.732 |
| Parahippocampal  | -0.012 | 0.014 | -0.876 | 0.381 | -0.039-0.015 | 1.716 | -0.013 | 0.014 | -0.964 | 0.335 | -0.041-0.014 | 1.703 |
| Paracentral  | 0.018 | 0.015 | 1.207 | 0.228 | -0.011-0.047 | 1.999 | 0.008 | 0.015 | 0.502 | 0.616 | -0.022-0.037 | 1.987 |
| Pars opercularis  | 0.021 | 0.015 | 1.381 | 0.167 | -0.009-0.05 | 2.008 | 0.008 | 0.015 | 0.503 | 0.615 | -0.022-0.038 | 1.962 |
| Pars orbitalis  | -0.011 | 0.017 | -0.620 | 0.535 | -0.045-0.023 | 2.771 | 0.000 | 0.018 | 0.000 | 1.000 | -0.035-0.035 | 2.721 |
| Parstriangularis  | 0.020 | 0.014 | 1.392 | 0.164 | -0.008-0.048 | 1.885 | 0.000 | 0.015 | -0.006 | 0.996 | -0.029-0.029 | 1.855 |
| Pericalcarine  | -0.018 | 0.019 | -0.929 | 0.353 | -0.056-0.02 | 3.454 | -0.010 | 0.020 | -0.479 | 0.632 | -0.049-0.03 | 3.412 |
| Postcentral  | -0.003 | 0.019 | -0.166 | 0.868 | -0.04-0.033 | 3.029 | -0.004 | 0.019 | -0.225 | 0.822 | -0.042-0.033 | 2.932 |
| Posterior cingulate  | -0.017 | 0.016 | -1.044 | 0.297 | -0.049-0.015 | 2.439 | 0.043 | 0.017 | 2.607 | 0.009 | 0.011-0.076 | 2.413 |
| Precentral  | 0.012 | 0.018 | 0.671 | 0.503 | -0.024-0.048 | 2.942 | -0.026 | 0.019 | -1.410 | 0.159 | -0.063-0.01 | 2.859 |
| Precuneus  | -0.017 | 0.019 | -0.896 | 0.370 | -0.053-0.02 | 3.169 | 0.006 | 0.019 | 0.290 | 0.772 | -0.032-0.043 | 3.163 |
| Rostral anterior cingulate  | -0.013 | 0.017 | -0.734 | 0.463 | -0.047-0.021 | 2.767 | 0.009 | 0.018 | 0.498 | 0.619 | -0.026-0.044 | 2.734 |
| Rostral middle frontal  | 0.006 | 0.020 | 0.290 | 0.772 | -0.033-0.045 | 3.450 | -0.032 | 0.020 | -1.579 | 0.115 | -0.072-0.008 | 3.358 |
| Superior frontal  | 0.005 | 0.024 | 0.217 | 0.828 | -0.042-0.053 | 5.199 | 0.012 | 0.025 | 0.469 | 0.639 | -0.037-0.06 | 5.035 |
| Superior parietal  | 0.002 | 0.018 | 0.126 | 0.900 | -0.032-0.037 | 2.706 | 0.018 | 0.018 | 0.996 | 0.320 | -0.017-0.053 | 2.652 |
| Superior temporal  | 0.002 | 0.024 | 0.102 | 0.919 | -0.044-0.049 | 4.870 | -0.006 | 0.024 | -0.243 | 0.808 | -0.053-0.041 | 4.710 |
| Supramarginal  | 0.038 | 0.018 | 2.082 | 0.038 | 0.002-0.074 | 2.933 | 0.022 | 0.019 | 1.178 | 0.239 | -0.015-0.059 | 2.858 |
| Frontal pole  | -0.006 | 0.013 | -0.485 | 0.628 | -0.033-0.02 | 1.627 | 0.025 | 0.014 | 1.852 | 0.064 | -0.001-0.052 | 1.614 |
| Temporal pole  | -0.013 | 0.013 | -1.002 | 0.316 | -0.04-0.013 | 1.662 | -0.028 | 0.014 | -2.069 | 0.039 | -0.055--0.001 | 1.649 |
| Transverse temporal  | -0.013 | 0.016 | -0.832 | 0.406 | -0.044-0.018 | 2.242 | 0.007 | 0.016 | 0.435 | 0.664 | -0.024-0.038 | 2.213 |
| Insula  | -0.013 | 0.018 | -0.747 | 0.455 | -0.048-0.021 | 2.801 | -0.031 | 0.018 | -1.685 | 0.092 | -0.066-0.005 | 2.799 |
| Age  | 0.017 | 0.010 | 1.578 | 0.115 | -0.004-0.037 | 1.011 | -0.017 | 0.011 | -1.552 | 0.121 | -0.037-0.004 | 1.011 |
| Sex  | -0.042 | 0.013 | -3.348 | 0.001 | -0.067--0.018 | 1.481 | -0.035 | 0.013 | -2.679 | 0.008 | -0.061--0.009 | 1.487 |
| Family income | 0.013 | 0.012 | 1.091 | 0.276 | -0.011-0.037 | 1.220 | -0.029 | 0.013 | -2.275 | 0.023 | -0.054--0.004 | 1.202 |
| Race | -0.019 | 0.013 | -1.508 | 0.132 | -0.044-0.006 | 1.282 | -0.011 | 0.013 | -0.805 | 0.421 | -0.037-0.015 | 1.261 |
| Medications | -0.006 | 0.011 | -0.544 | 0.586 | -0.027-0.015 | 1.038 | 0.109 | 0.011 | 10.067 | 0.000 | 0.088-0.13 | 1.024 |

**Supplementary table 7**

*Subcortical volume regions predicting PLEs, depressive and anxiety symptoms, accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with family and scanner serial number as random effects, CI=confidence interval, VIF=variance inflation factor.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Subcortical volume  | Symptoms change over time |  |  | Baseline |  |  |
| β | SE  |  t-value  | p-value | β 95% CI | VIF | β | SE  |  t-value  | p-value | β 95% CI | VIF |
|  |  | PLEs |  |  |
| Intercept  | 0.000 | 0.007 | -0.031 | 0.975 | -0.014-0.014 |  | 0.020 | 0.028 | 0.711 | 0.477 | -0.035-0.074 | --- |
| Baseline symptoms (for slope analysis) | -0.820 | 0.006 | -130.894 | 0.000 | -0.832--0.807 | 1.022 | --- | ---- | --- | --- | --- | --- |
| Thalamus  | -0.001 | 0.009 | -0.104 | 0.917 | -0.02-0.018 | 2.247 | -0.005 | 0.016 | -0.283 | 0.778 | -0.037-0.027 | 2.215 |
| Caudate  | -0.002 | 0.008 | -0.269 | 0.788 | -0.018-0.014 | 1.652 | -0.008 | 0.014 | -0.561 | 0.575 | -0.035-0.019 | 1.669 |
| Putamen  | -0.001 | 0.008 | -0.076 | 0.939 | -0.017-0.016 | 1.828 | -0.021 | 0.015 | -1.470 | 0.142 | -0.05-0.007 | 1.805 |
| Pallidum  | 0.003 | 0.008 | 0.306 | 0.760 | -0.014-0.019 | 1.849 | 0.001 | 0.015 | 0.044 | 0.965 | -0.028-0.029 | 1.898 |
| Hippocampus  | 0.002 | 0.009 | 0.239 | 0.811 | -0.016-0.02 | 2.153 | -0.002 | 0.016 | -0.101 | 0.919 | -0.033-0.03 | 2.091 |
| Amygdala  | -0.005 | 0.009 | -0.517 | 0.605 | -0.022-0.013 | 2.004 | 0.010 | 0.016 | 0.634 | 0.527 | -0.021-0.042 | 1.989 |
| Accumbens  | 0.010 | 0.008 | 1.220 | 0.223 | -0.006-0.025 | 1.555 | 0.003 | 0.014 | 0.195 | 0.845 | -0.025-0.031 | 1.636 |
| Age  | -0.001 | 0.006 | -0.157 | 0.876 | -0.013-0.011 | 1.018 | -0.048 | 0.011 | -4.459 | 0.000 | -0.068--0.027 | 1.015 |
| Sex  | -0.005 | 0.007 | -0.775 | 0.439 | -0.019-0.008 | 1.292 | 0.009 | 0.012 | 0.740 | 0.460 | -0.015-0.033 | 1.307 |
| Family income | -0.011 | 0.007 | -1.525 | 0.128 | -0.025-0.003 | 1.232 | -0.066 | 0.013 | -5.298 | 0.000 | -0.091--0.042 | 1.186 |
| Race | -0.003 | 0.007 | -0.454 | 0.650 | -0.018-0.011 | 1.241 | 0.069 | 0.013 | 5.332 | 0.000 | 0.043-0.094 | 1.191 |
| Medications | 0.000 | 0.006 | 0.053 | 0.958 | -0.012-0.013 | 1.024 | 0.063 | 0.011 | 5.828 | 0.000 | 0.042-0.084 | 1.020 |
|  |  | Depressive symptoms  |  |  |
| Intercept  | 0.001 | 0.013 | 0.108 | 0.914 | -0.025-0.028 |  | -0.005 | 0.023 | -0.210 | 0.834 | -0.05-0.041 |  |
| Baseline symptoms (for slope analysis) | 0.507 | 0.009 | 53.806 | 0.000 | 0.489-0.526 | 1.028 | --- | --- | --- | --- | --- |  |
| Thalamus  | -0.019 | 0.014 | -1.370 | 0.171 | -0.047-0.008 | 2.249 | -0.012 | 0.016 | -0.740 | 0.460 | -0.044-0.02 | 2.217 |
| Caudate  | 0.007 | 0.012 | 0.544 | 0.586 | -0.017-0.03 | 1.666 | -0.018 | 0.014 | -1.264 | 0.206 | -0.045-0.01 | 1.666 |
| Putamen  | 0.005 | 0.013 | 0.373 | 0.709 | -0.02-0.03 | 1.832 | -0.011 | 0.015 | -0.786 | 0.432 | -0.04-0.017 | 1.805 |
| Pallidum  | 0.010 | 0.013 | 0.812 | 0.417 | -0.015-0.035 | 1.896 | 0.005 | 0.015 | 0.351 | 0.726 | -0.024-0.034 | 1.888 |
| Hippocampus  | 0.012 | 0.014 | 0.864 | 0.388 | -0.015-0.039 | 2.144 | 0.026 | 0.016 | 1.614 | 0.107 | -0.006-0.057 | 2.096 |
| Amygdala  | -0.021 | 0.014 | -1.501 | 0.133 | -0.047-0.006 | 2.009 | -0.002 | 0.016 | -0.105 | 0.916 | -0.033-0.03 | 1.987 |
| Accumbens  | 0.012 | 0.012 | 1.031 | 0.303 | -0.011-0.036 | 1.595 | -0.006 | 0.014 | -0.456 | 0.648 | -0.034-0.021 | 1.623 |
| Age  | 0.020 | 0.009 | 2.106 | 0.035 | 0.001-0.038 | 1.015 | 0.000 | 0.011 | 0.024 | 0.981 | -0.021-0.021 | 1.015 |
| Sex  | -0.029 | 0.011 | -2.784 | 0.005 | -0.05--0.009 | 1.299 | 0.041 | 0.012 | 3.394 | 0.001 | 0.017-0.065 | 1.305 |
| Family income | -0.001 | 0.011 | -0.074 | 0.941 | -0.021-0.02 | 1.210 | -0.034 | 0.013 | -2.680 | 0.008 | -0.058--0.009 | 1.190 |
| Race | -0.007 | 0.011 | -0.631 | 0.528 | -0.028-0.014 | 1.216 | -0.004 | 0.013 | -0.316 | 0.752 | -0.029-0.021 | 1.196 |
| Medications | -0.003 | 0.009 | -0.299 | 0.765 | -0.021-0.016 | 1.043 | 0.144 | 0.011 | 13.397 | 0.000 | 0.123-0.165 | 1.020 |
|  |  | Anxiety symptoms  |  |  |
| Intercept  | 0.010 | 0.017 | 0.579 | 0.563 | -0.024-0.044 |  | -0.003 | 0.025 | -0.140 | 0.889 | -0.052-0.045 |  |
| Baseline symptoms (for slope analysis) | -0.256 | 0.011 | -24.309 | 0.000 | -0.276--0.235 | 1.015 | --- | --- | --- | --- | --- |  |
| Thalamus  | -0.031 | 0.016 | -1.948 | 0.052 | -0.062-0 | 2.235 | -0.015 | 0.016 | -0.940 | 0.347 | -0.048-0.017 | 2.214 |
| Caudate  | 0.024 | 0.014 | 1.803 | 0.072 | -0.002-0.051 | 1.666 | 0.008 | 0.014 | 0.584 | 0.559 | -0.019-0.035 | 1.666 |
| Putamen  | -0.022 | 0.014 | -1.523 | 0.128 | -0.05-0.006 | 1.822 | -0.022 | 0.015 | -1.511 | 0.131 | -0.051-0.007 | 1.803 |
| Pallidum  | 0.007 | 0.014 | 0.460 | 0.646 | -0.022-0.035 | 1.893 | 0.007 | 0.015 | 0.500 | 0.617 | -0.022-0.036 | 1.888 |
| Hippocampus  | 0.010 | 0.016 | 0.631 | 0.529 | -0.021-0.04 | 2.125 | 0.014 | 0.016 | 0.893 | 0.372 | -0.017-0.046 | 2.092 |
| Amygdala  | 0.016 | 0.016 | 1.058 | 0.290 | -0.014-0.047 | 2.000 | -0.004 | 0.016 | -0.250 | 0.803 | -0.036-0.028 | 1.986 |
| Accumbens  | 0.003 | 0.014 | 0.211 | 0.833 | -0.024-0.03 | 1.607 | 0.001 | 0.014 | 0.042 | 0.966 | -0.028-0.029 | 1.626 |
| Age  | 0.017 | 0.011 | 1.609 | 0.108 | -0.004-0.038 | 1.016 | -0.018 | 0.011 | -1.690 | 0.091 | -0.039-0.003 | 1.015 |
| Sex  | -0.036 | 0.012 | -3.032 | 0.003 | -0.059--0.013 | 1.300 | -0.031 | 0.012 | -2.502 | 0.013 | -0.055--0.007 | 1.306 |
| Family income | 0.017 | 0.012 | 1.379 | 0.168 | -0.007-0.04 | 1.202 | -0.027 | 0.013 | -2.104 | 0.036 | -0.051--0.002 | 1.188 |
| Race | -0.022 | 0.012 | -1.820 | 0.069 | -0.046-0.002 | 1.208 | -0.017 | 0.013 | -1.287 | 0.198 | -0.042-0.009 | 1.194 |
| Medications | -0.007 | 0.011 | -0.672 | 0.501 | -0.028-0.014 | 1.032 | 0.109 | 0.011 | 10.051 | 0.000 | 0.087-0.13 | 1.019 |

**Supplementary table 8**

*Cortical thickness regions predicting PLEs (analyses done without imputation), accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with family and site as random effects.*

|  |  |
| --- | --- |
| Cortical thickness  | PLE change over time (slope) |
| β | SE  |  t-value  | p-value |
| Intercept  | 0.002 | 0.011 | 0.172 | 0.863 |
| Baseline symptoms (for slope analysis) | -0.821 | 0.008 | -97.235 | 0.000 |
| Banks of superior temporal sulcus  | 0.006 | 0.011 | 0.540 | 0.589 |
| Caudal anterior cingulate  | 0.006 | 0.010 | 0.597 | 0.551 |
| Caudal middle frontal  | 0.011 | 0.015 | 0.708 | 0.479 |
| Cuneus  | -0.004 | 0.013 | -0.334 | 0.739 |
| Entorhinal  | 0.003 | 0.009 | 0.297 | 0.766 |
| Fusiform  | -0.040 | 0.014 | -2.847 | 0.005 |
| Inferior parietal  | -0.009 | 0.019 | -0.492 | 0.623 |
| Inferior temporal  | -0.005 | 0.014 | -0.359 | 0.720 |
| Isthmus cingulate  | 0.014 | 0.009 | 1.504 | 0.133 |
| Lateral occipital  | 0.016 | 0.016 | 0.991 | 0.322 |
| Lateral orbitofrontal  | 0.014 | 0.013 | 1.138 | 0.256 |
| Lingual  | 0.013 | 0.012 | 1.039 | 0.299 |
| Medial orbitofrontal  | -0.025 | 0.012 | -2.189 | 0.029 |
| Middle temporal  | 0.012 | 0.016 | 0.771 | 0.441 |
| Parahippocampal  | -0.009 | 0.009 | -1.046 | 0.296 |
| Paracentral  | 0.005 | 0.014 | 0.363 | 0.717 |
| Pars opercularis  | 0.007 | 0.013 | 0.526 | 0.599 |
| Pars orbitalis  | -0.008 | 0.011 | -0.691 | 0.490 |
| Parstriangularis  | -0.007 | 0.013 | -0.490 | 0.625 |
| Pericalcarine  | -0.002 | 0.011 | -0.161 | 0.872 |
| Postcentral  | -0.007 | 0.013 | -0.527 | 0.598 |
| Posterior cingulate  | 0.003 | 0.010 | 0.330 | 0.741 |
| Precentral  | -0.007 | 0.016 | -0.478 | 0.633 |
| Precuneus  | 0.002 | 0.015 | 0.110 | 0.913 |
| Rostral anterior cingulate  | 0.014 | 0.011 | 1.319 | 0.188 |
| Rostral middle frontal  | 0.000 | 0.018 | -0.027 | 0.979 |
| Superior frontal  | -0.010 | 0.018 | -0.552 | 0.581 |
| Superior parietal  | 0.018 | 0.019 | 0.944 | 0.345 |
| Superior temporal  | -0.008 | 0.015 | -0.518 | 0.605 |
| Supramarginal  | -0.002 | 0.018 | -0.116 | 0.908 |
| Frontal pole  | 0.011 | 0.010 | 1.070 | 0.285 |
| Temporal pole  | 0.005 | 0.010 | 0.533 | 0.594 |
| Transverse temporal  | 0.020 | 0.011 | 1.847 | 0.065 |
| Insula  | 0.004 | 0.011 | 0.393 | 0.694 |
| Age  | 0.008 | 0.008 | 1.023 | 0.307 |
| Sex  | -0.003 | 0.009 | -0.389 | 0.697 |
| Family Income | -0.014 | 0.009 | -1.442 | 0.150 |
| Race | 0.005 | 0.010 | 0.543 | 0.587 |
| Medication | -0.006 | 0.008 | -0.730 | 0.465 |

**Supplementary table 9**

*Cortical surface area regions predicting PLEs (analyses done without imputation), accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with hemisphere, family and site as random effects.*

|  |  |
| --- | --- |
| Cortical surface area | PLE change over time (slope) |
| β | SE  |  t-value  | p-value |
| Intercept  | 0.002 | 0.010 | 0.175 | 0.861 |
| Baseline symptoms (for slope analysis) | -0.821 | 0.008 | -97.726 | 0.000 |
| Banks of superior temporal sulcus  | -0.021 | 0.012 | -1.796 | 0.073 |
| Caudal anterior cingulate  | 0.007 | 0.012 | 0.538 | 0.591 |
| Caudal middle frontal  | -0.012 | 0.012 | -0.945 | 0.345 |
| Cuneus  | -0.003 | 0.014 | -0.254 | 0.800 |
| Entorhinal  | 0.001 | 0.010 | 0.106 | 0.916 |
| Fusiform  | -0.008 | 0.014 | -0.565 | 0.572 |
| Inferior parietal  | 0.013 | 0.014 | 0.958 | 0.339 |
| Inferior temporal  | 0.027 | 0.016 | 1.711 | 0.088 |
| Isthmus cingulate  | 0.001 | 0.012 | 0.045 | 0.964 |
| Lateral occipital  | -0.004 | 0.013 | -0.282 | 0.778 |
| Lateral orbitofrontal  | -0.035 | 0.015 | -2.280 | 0.023 |
| Lingual  | -0.007 | 0.014 | -0.501 | 0.617 |
| Medial orbitofrontal  | 0.015 | 0.014 | 1.118 | 0.264 |
| Middle temporal  | -0.023 | 0.018 | -1.253 | 0.211 |
| Parahippocampal  | 0.005 | 0.010 | 0.494 | 0.622 |
| Paracentral  | 0.010 | 0.011 | 0.876 | 0.382 |
| Pars opercularis  | -0.008 | 0.011 | -0.667 | 0.505 |
| Pars orbitalis  | 0.030 | 0.013 | 2.277 | 0.023 |
| Parstriangularis  | 0.004 | 0.011 | 0.340 | 0.734 |
| Pericalcarine  | 0.004 | 0.015 | 0.242 | 0.809 |
| Postcentral  | -0.005 | 0.014 | -0.341 | 0.734 |
| Posterior cingulate  | -0.020 | 0.012 | -1.609 | 0.108 |
| Precentral  | 0.007 | 0.014 | 0.538 | 0.591 |
| Precuneus  | 0.032 | 0.014 | 2.271 | 0.024 |
| Rostral anterior cingulate  | 0.008 | 0.013 | 0.584 | 0.560 |
| Rostral middle frontal  | -0.017 | 0.015 | -1.144 | 0.253 |
| Superior frontal  | -0.010 | 0.018 | -0.521 | 0.602 |
| Superior parietal  | -0.004 | 0.013 | -0.320 | 0.749 |
| Superior temporal  | 0.016 | 0.018 | 0.917 | 0.360 |
| Supramarginal  | 0.003 | 0.014 | 0.215 | 0.830 |
| Frontal pole  | 0.003 | 0.010 | 0.267 | 0.790 |
| Temporal pole  | -0.003 | 0.010 | -0.259 | 0.796 |
| Transverse temporal  | 0.005 | 0.012 | 0.411 | 0.681 |
| Insula  | -0.012 | 0.013 | -0.866 | 0.387 |
| Age  | 0.006 | 0.008 | 0.739 | 0.460 |
| Sex  | -0.005 | 0.010 | -0.552 | 0.581 |
| Medications | -0.015 | 0.009 | -1.623 | 0.105 |
|  | 0.005 | 0.010 | 0.544 | 0.587 |
|  | -0.006 | 0.008 | -0.680 | 0.497 |

**Supplementary Table 10**

*Cortical thickness regions predicting depressive symptoms (analyses done without imputation), accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with hemisphere, family and site as random effects.*

|  |  |
| --- | --- |
| Cortical thickness  | Depressive symptom change over time (slope) |
| β | SE  |  t-value  | p-value |
| Intercept | 0.005 | 0.016 | 0.295 | 0.768 |
| Baseline symptoms (for slope analysis) | 0.514 | 0.013 | 40.874 | 0.000 |
| Banks of superior temporal sulcus  | 0.004 | 0.017 | 0.232 | 0.816 |
| Caudal anterior cingulate  | -0.024 | 0.015 | -1.624 | 0.105 |
| Caudal middle frontal  | -0.011 | 0.023 | -0.470 | 0.638 |
| Cuneus  | 0.007 | 0.019 | 0.342 | 0.733 |
| Entorhinal  | 0.003 | 0.014 | 0.213 | 0.831 |
| Fusiform  | -0.030 | 0.021 | -1.422 | 0.155 |
| Inferior parietal  | -0.044 | 0.029 | -1.550 | 0.122 |
| Inferior temporal  | 0.024 | 0.021 | 1.175 | 0.240 |
| Isthmus cingulate  | 0.014 | 0.014 | 1.048 | 0.295 |
| Lateral occipital  | 0.016 | 0.024 | 0.677 | 0.498 |
| Lateral orbitofrontal  | -0.002 | 0.019 | -0.130 | 0.896 |
| Lingual  | 0.010 | 0.018 | 0.542 | 0.588 |
| Medial orbitofrontal  | 0.012 | 0.018 | 0.697 | 0.486 |
| Middle temporal  | 0.042 | 0.024 | 1.759 | 0.079 |
| Parahippocampal  | 0.018 | 0.013 | 1.346 | 0.179 |
| Paracentral  | 0.008 | 0.020 | 0.367 | 0.714 |
| Pars opercularis  | -0.016 | 0.019 | -0.817 | 0.414 |
| Pars orbitalis  | 0.005 | 0.017 | 0.320 | 0.749 |
| Parstriangularis  | -0.007 | 0.020 | -0.363 | 0.717 |
| Pericalcarine  | -0.019 | 0.017 | -1.133 | 0.258 |
| Postcentral  | 0.019 | 0.020 | 0.979 | 0.328 |
| Posterior cingulate  | -0.020 | 0.015 | -1.299 | 0.194 |
| Precentral  | 0.026 | 0.023 | 1.114 | 0.266 |
| Precuneus  | 0.043 | 0.023 | 1.870 | 0.062 |
| Rostral anterior cingulate  | -0.004 | 0.016 | -0.222 | 0.824 |
| Rostral middle frontal  | -0.039 | 0.028 | -1.398 | 0.163 |
| Superior frontal  | -0.010 | 0.027 | -0.383 | 0.702 |
| Superior parietal  | 0.002 | 0.028 | 0.081 | 0.936 |
| Superior temporal  | -0.031 | 0.023 | -1.341 | 0.180 |
| Supramarginal  | 0.001 | 0.027 | 0.026 | 0.980 |
| Frontal pole  | -0.011 | 0.015 | -0.750 | 0.453 |
| Temporal pole  | 0.011 | 0.015 | 0.697 | 0.486 |
| Transverse temporal  | -0.021 | 0.016 | -1.331 | 0.184 |
| Insula  | -0.005 | 0.016 | -0.307 | 0.759 |
| Age  | 0.019 | 0.012 | 1.520 | 0.129 |
| Sex  | -0.044 | 0.013 | -3.355 | 0.001 |
| Family Income | -0.008 | 0.014 | -0.606 | 0.545 |
| Race | -0.020 | 0.015 | -1.367 | 0.172 |
| Medication | -0.016 | 0.013 | -1.256 | 0.210 |

**Supplementary Table 11**

*Cortical surface area regions predicting depressive symptoms (analyses done without imputation), accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with hemisphere, family and site as random effects.*

|  |  |
| --- | --- |
| Surface area  | Depressive symptom change over time |
| β | SE  |  t-value  | p-value |
| Intercept | 0.006 | 0.016 | 0.339 | 0.735 |
| Baseline symptoms (for slope analysis) | 0.513 | 0.013 | 40.764 | 0.000 |
| Banks of superior temporal sulcus  | 0.013 | 0.018 | 0.723 | 0.470 |
| Caudal anterior cingulate  | -0.019 | 0.018 | -1.044 | 0.297 |
| Caudal middle frontal  | 0.019 | 0.018 | 1.047 | 0.296 |
| Cuneus  | 0.013 | 0.021 | 0.645 | 0.519 |
| Entorhinal  | 0.022 | 0.015 | 1.488 | 0.137 |
| Fusiform  | -0.001 | 0.021 | -0.065 | 0.948 |
| Inferior parietal  | -0.033 | 0.021 | -1.583 | 0.114 |
| Inferior temporal  | -0.053 | 0.024 | -2.215 | 0.027 |
| Isthmus cingulate  | 0.015 | 0.018 | 0.813 | 0.416 |
| Lateral occipital  | 0.016 | 0.020 | 0.822 | 0.412 |
| Lateral orbitofrontal  | -0.008 | 0.023 | -0.342 | 0.732 |
| Lingual  | 0.011 | 0.021 | 0.509 | 0.611 |
| Medial orbitofrontal  | -0.012 | 0.021 | -0.570 | 0.569 |
| Middle temporal  | 0.037 | 0.027 | 1.362 | 0.174 |
| Parahippocampal  | -0.023 | 0.016 | -1.440 | 0.150 |
| Paracentral  | -0.004 | 0.017 | -0.247 | 0.805 |
| Pars opercularis  | 0.013 | 0.017 | 0.767 | 0.443 |
| Pars orbitalis  | 0.022 | 0.020 | 1.079 | 0.281 |
| Pars triangularis  | -0.006 | 0.017 | -0.360 | 0.719 |
| Pericalcarine  | -0.025 | 0.022 | -1.139 | 0.255 |
| Postcentral  | 0.016 | 0.021 | 0.731 | 0.465 |
| Posterior cingulate  | -0.011 | 0.019 | -0.602 | 0.548 |
| Precentral  | 0.012 | 0.021 | 0.551 | 0.582 |
| Precuneus  | -0.022 | 0.021 | -1.015 | 0.311 |
| Rostral anterior cingulate  | 0.006 | 0.020 | 0.324 | 0.746 |
| Rostral middle frontal  | -0.008 | 0.023 | -0.350 | 0.726 |
| Superior frontal  | 0.033 | 0.028 | 1.205 | 0.229 |
| Superior parietal  | -0.015 | 0.020 | -0.772 | 0.440 |
| Superior temporal  | -0.022 | 0.027 | -0.829 | 0.408 |
| Supramarginal  | 0.036 | 0.021 | 1.728 | 0.084 |
| Frontal pole  | -0.006 | 0.015 | -0.421 | 0.674 |
| Temporal pole  | 0.005 | 0.015 | 0.333 | 0.739 |
| Transverse temporal  | -0.004 | 0.018 | -0.206 | 0.837 |
| Insula  | -0.005 | 0.020 | -0.230 | 0.818 |
| Age  | 0.022 | 0.012 | 1.827 | 0.068 |
| Sex  | -0.046 | 0.015 | -3.161 | 0.002 |
| Family income | -0.010 | 0.014 | -0.741 | 0.459 |
| Race | -0.024 | 0.014 | -1.690 | 0.091 |
| Medications | -0.019 | 0.013 | -1.521 | 0.129 |

**Supplementary Table 12**

*Cortical thickness regions predicting anxiety symptoms (analyses done without imputation), accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with hemisphere, family and site as random effects.*

|  |  |
| --- | --- |
| Cortical thickness | Anxiety symptom change over time |
| β | SE  |  t-value  | p-value |
| Intercept | 0.011 | 0.020 | 0.536 | 0.592 |
| Baseline symptoms (for slope analysis) | -0.261 | 0.014 | -18.872 | 0.000 |
| Banks of superior temporal sulcus  | 0.006 | 0.019 | 0.289 | 0.773 |
| Caudal anterior cingulate  | -0.015 | 0.017 | -0.893 | 0.372 |
| Caudal middle frontal  | 0.045 | 0.026 | 1.740 | 0.082 |
| Cuneus  | -0.013 | 0.021 | -0.589 | 0.556 |
| Entorhinal  | -0.015 | 0.016 | -0.986 | 0.325 |
| Fusiform  | -0.060 | 0.024 | -2.517 | 0.012 |
| Inferior parietal  | -0.048 | 0.032 | -1.498 | 0.135 |
| Inferior temporal  | 0.031 | 0.023 | 1.330 | 0.184 |
| Isthmus cingulate  | -0.010 | 0.015 | -0.639 | 0.523 |
| Lateral occipital  | 0.002 | 0.027 | 0.079 | 0.937 |
| Lateral orbitofrontal  | 0.006 | 0.021 | 0.265 | 0.791 |
| Lingual  | 0.013 | 0.021 | 0.643 | 0.520 |
| Medial orbitofrontal  | 0.018 | 0.020 | 0.933 | 0.351 |
| Middle temporal  | 0.043 | 0.026 | 1.630 | 0.104 |
| Parahippocampal  | 0.032 | 0.015 | 2.150 | 0.032 |
| Paracentral  | 0.003 | 0.023 | 0.139 | 0.890 |
| Pars opercularis  | -0.015 | 0.022 | -0.679 | 0.498 |
| Pars orbitalis  | -0.006 | 0.019 | -0.327 | 0.744 |
| Pars triangularis  | -0.001 | 0.023 | -0.054 | 0.957 |
| Pericalcarine  | 0.006 | 0.019 | 0.323 | 0.747 |
| Postcentral  | 0.000 | 0.022 | 0.010 | 0.992 |
| Posterior cingulate  | 0.017 | 0.017 | 1.023 | 0.307 |
| Precentral  | -0.007 | 0.026 | -0.277 | 0.782 |
| Precuneus  | 0.056 | 0.026 | 2.165 | 0.031 |
| Rostral anterior cingulate  | -0.019 | 0.018 | -1.046 | 0.296 |
| Rostral middle frontal  | -0.020 | 0.031 | -0.648 | 0.517 |
| Superior frontal  | -0.018 | 0.030 | -0.587 | 0.558 |
| Superior parietal  | -0.006 | 0.032 | -0.189 | 0.850 |
| Superior temporal  | -0.016 | 0.026 | -0.601 | 0.548 |
| Supramarginal  | -0.026 | 0.030 | -0.864 | 0.388 |
| Frontal pole  | -0.018 | 0.017 | -1.087 | 0.277 |
| Temporal pole  | 0.025 | 0.017 | 1.435 | 0.152 |
| Transverse temporal  | -0.003 | 0.018 | -0.169 | 0.866 |
| Insula  | 0.000 | 0.018 | 0.007 | 0.995 |
| Age  | 0.022 | 0.014 | 1.624 | 0.105 |
| Sex  | -0.048 | 0.015 | -3.204 | 0.001 |
| Family Income | 0.015 | 0.015 | 0.949 | 0.343 |
| Race | -0.039 | 0.016 | -2.405 | 0.017 |
| Medication | -0.003 | 0.014 | -0.234 | 0.815 |

**Supplementary Table 13**

*Cortical surface area regions predicting anxiety symptoms (analyses done without imputation), accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with hemisphere, family and site as random effects.*

|  |  |
| --- | --- |
| Cortical surface area | Anxiety symptoms change over time |
| β | SE  |  t-value  | p-value |
| Intercept | 0.010 | 0.020 | 0.495 | 0.621 |
| Baseline symptoms (for slope analysis) | -0.263 | 0.014 | -19.019 | 0.000 |
| Banks of superior temporal sulcus  | 0.016 | 0.020 | 0.801 | 0.423 |
| Caudal anterior cingulate  | 0.005 | 0.021 | 0.225 | 0.822 |
| Caudal middle frontal  | -0.005 | 0.021 | -0.226 | 0.821 |
| Cuneus  | 0.013 | 0.023 | 0.545 | 0.586 |
| Entorhinal  | 0.034 | 0.017 | 2.025 | 0.043 |
| Fusiform  | 0.015 | 0.023 | 0.641 | 0.522 |
| Inferior parietal  | -0.012 | 0.023 | -0.514 | 0.607 |
| Inferior temporal  | 0.004 | 0.027 | 0.146 | 0.884 |
| Isthmus cingulate  | -0.027 | 0.021 | -1.303 | 0.193 |
| Lateral occipital  | 0.048 | 0.022 | 2.143 | 0.032 |
| Lateral orbitofrontal  | 0.021 | 0.026 | 0.808 | 0.419 |
| Lingual  | 0.023 | 0.023 | 0.998 | 0.318 |
| Medial orbitofrontal  | -0.015 | 0.023 | -0.662 | 0.508 |
| Middle temporal  | -0.018 | 0.030 | -0.608 | 0.543 |
| Parahippocampal  | -0.046 | 0.018 | -2.598 | 0.010 |
| Paracentral  | 0.007 | 0.019 | 0.386 | 0.700 |
| Pars opercularis  | 0.021 | 0.019 | 1.087 | 0.278 |
| Pars orbitalis  | -0.026 | 0.022 | -1.153 | 0.249 |
| Parstriangularis  | 0.014 | 0.019 | 0.773 | 0.440 |
| Pericalcarine  | -0.034 | 0.025 | -1.344 | 0.179 |
| Postcentral  | 0.008 | 0.024 | 0.315 | 0.753 |
| Posterior cingulate  | -0.037 | 0.021 | -1.769 | 0.077 |
| Precentral  | 0.022 | 0.023 | 0.942 | 0.347 |
| Precuneus  | -0.006 | 0.024 | -0.253 | 0.800 |
| Rostral anterior cingulate  | -0.016 | 0.022 | -0.736 | 0.462 |
| Rostral middle frontal  | -0.019 | 0.025 | -0.762 | 0.447 |
| Superior frontal  | 0.001 | 0.031 | 0.040 | 0.968 |
| Superior parietal  | -0.003 | 0.022 | -0.129 | 0.897 |
| Superior temporal  | 0.011 | 0.030 | 0.368 | 0.713 |
| Supramarginal  | 0.048 | 0.023 | 2.066 | 0.039 |
| Frontal pole  | 0.015 | 0.017 | 0.863 | 0.389 |
| Temporal pole  | -0.011 | 0.017 | -0.659 | 0.510 |
| Transverse temporal  | -0.026 | 0.020 | -1.292 | 0.197 |
| Insula  | 0.007 | 0.023 | 0.311 | 0.756 |
| Age  | 0.027 | 0.013 | 1.975 | 0.049 |
| Sex  | -0.058 | 0.016 | -3.569 | 0.000 |
| Family Income | 0.012 | 0.015 | 0.760 | 0.448 |
| Race | -0.034 | 0.016 | -2.065 | 0.039 |
| Medication | -0.001 | 0.014 | -0.082 | 0.935 |

**Supplementary table 14**

*Subcortical volume regions predicting PLEs (analyses done without imputation), depressive and anxiety symptoms, accounting for medication use (antipsychotics, sedatives, serotonin selective reuptake inhibitors, stimulants, and mood stabilizers) age, sex, family income, and race as fixed effects, with hemisphere, family and site as random effects.*

.

|  |  |
| --- | --- |
| Subcortical volume  | Symptoms change over time |
| β | SE  |  t-value  | p-value |
| PLEs |  |  |  |  |
| Intercept  | 0.001 | 0.010 | 0.134 | 0.894 |
| Baseline symptoms (for slope analysis) | -0.820 | 0.008 | -97.937 | 0.000 |
| Thalamus  | -0.003 | 0.012 | -0.211 | 0.833 |
| Caudate  | 0.004 | 0.010 | 0.361 | 0.719 |
| Putamen  | 0.002 | 0.011 | 0.216 | 0.829 |
| Pallidum  | -0.003 | 0.011 | -0.280 | 0.779 |
| Hippocampus  | -0.016 | 0.012 | -1.369 | 0.172 |
| Amygdala  | 0.018 | 0.012 | 1.504 | 0.133 |
| Accumbens  | 0.003 | 0.010 | 0.332 | 0.740 |
| Age  | 0.007 | 0.008 | 0.848 | 0.397 |
| Sex  | -0.005 | 0.009 | -0.522 | 0.602 |
| Family Income | -0.015 | 0.009 | -1.569 | 0.117 |
| Race | 0.002 | 0.009 | 0.216 | 0.829 |
| Medication | -0.005 | 0.008 | -0.613 | 0.540 |
| Depressive symptoms |  |  |  |  |
| Intercept  | 0.006 | 0.016 | 0.363 | 0.717 |
| Baseline symptoms (for slope analysis) | 0.513 | 0.013 | 40.934 | 0.000 |
| Thalamus  | -0.021 | 0.018 | -1.122 | 0.262 |
| Caudate  | -0.007 | 0.016 | -0.442 | 0.659 |
| Putamen  | 0.004 | 0.016 | 0.265 | 0.791 |
| Pallidum  | 0.023 | 0.016 | 1.418 | 0.157 |
| Hippocampus  | 0.003 | 0.018 | 0.161 | 0.872 |
| Amygdala  | -0.003 | 0.018 | -0.181 | 0.857 |
| Accumbens  | 0.010 | 0.015 | 0.647 | 0.518 |
| Age  | 0.022 | 0.012 | 1.801 | 0.072 |
| Sex  | -0.041 | 0.014 | -2.973 | 0.003 |
| Family Income | -0.007 | 0.014 | -0.524 | 0.600 |
| Race | -0.030 | 0.014 | -2.125 | 0.034 |
| Medication | -0.019 | 0.013 | -1.490 | 0.137 |
| Anxiety symptoms |  |  |  |  |
| Intercept  | 0.014 | 0.021 | 0.660 | 0.509 |
| Baseline symptoms (for slope analysis) | -0.262 | 0.014 | -18.940 | 0.000 |
| Thalamus  | -0.042 | 0.021 | -2.038 | 0.042 |
| Caudate  | 0.011 | 0.017 | 0.636 | 0.525 |
| Putamen  | 0.013 | 0.018 | 0.705 | 0.481 |
| Pallidum  | 0.006 | 0.018 | 0.302 | 0.762 |
| Hippocampus  | 0.026 | 0.020 | 1.303 | 0.193 |
| Amygdala  | 0.008 | 0.020 | 0.420 | 0.675 |
| Accumbens  | 0.005 | 0.018 | 0.299 | 0.765 |
| Age  | 0.025 | 0.014 | 1.841 | 0.066 |
| Sex  | -0.048 | 0.015 | -3.140 | 0.002 |
| Family Income | 0.014 | 0.015 | 0.926 | 0.355 |
| Race | -0.042 | 0.016 | -2.658 | 0.008 |
| Medications | -0.003 | 0.014 | -0.242 | 0.809 |

**Supplementary Table 15**

*Sensitivity analyses on hemispheres for significant regions. ✓ indicates that the association was present when analyses were run only in left/right hemisphere.*

|  |  |
| --- | --- |
| **PSYCHOTIC LIKE EXPERIENCES** | **Hemisphere** |
| Lobe | Region  | Metric | TPa | ↑↓b | Left | Right |
| Temporal | Transverse temporal | Thickness | Slope | ↑↑ |  |  |
| Fusiform | Thickness | Slope | ↑↓ | ✓ |  |
| Middle temporal | Area | Slope | ↑↓ | ✓ |  |
| Occipital | Lateral occipital | Thickness | Slope | ↑↑ |  | ✓ |
| Frontal |  Precentral | Thickness | Baseline | ↑↓ | ✓ |  |
| Superior frontal | Area | Baseline | ↑↓ |  | ✓ |
| **DEPRESSIVE SYMPTOMS** |  |  |
|  | Middle temporal | Thickness | Baseline | ↑↑ |  |  |
| Temporal | Inferior temporal  | Thickness | Baseline | ↑↓ |  | ✓ |
|  | Entorhinal | Area | Baseline | ↑↑ |  |  |
|  | Parahippocampal | Area | Baseline | ↑↓ | ✓ | ✓ |
| Parietal | Postcentral  | Thickness | Baseline | ↑↓ |  | ✓ |
| Limbic | Posterior cingulate | Area | Baseline | ↑↑ | ✓ | ✓ |
| Frontal | Superior frontal | Thickness | Baseline | ↑↓ | ✓ |  |
|  | Precentral | Area | Baseline | ↑↓ |  | ✓ |
| **ANXIETY SYMPTOMS**  |  |  |
| Temporal | Entorhinal | Area | Baseline | ↑↑ | ✓ |  |
|  | Temporal pole | Area | Baseline | ↑↓ | ✓ |  |
|  | Fusiform | Thickness | Slope | ↑↓ | ✓ |  |
|  | Precuneus | Thickness | Baseline | ↑↑ |  | ✓ |
| Parietal | Inferior parietal | Thickness | Slope | ↑↓ |  |  |
|  | Supramarginal | Area | Slope | ↑↑ |  | ✓ |
| Limbic | Isthmus cingulate | Thickness | Baseline | ↑↑ | ✓ | ✓ |
|  | Posterior cingulate | Area | Baseline | ↑↑ | ✓ |  |
| Frontal | Superior frontal | Thickness | Baseline | ↑↓ | ✓ |  |
|  | Caudal middle frontal | Thickness | Slope | ↑↑ |  | ✓ |
|  | Rostral middle frontal | Thickness | Slope | ↑↓ | ✓ |  |

***Exclusion criteria for analyses with baseline data, as well as for longitudinal analyses.*** *MRI=magnetic resonance imaging, QC=quality control, FS=FreeSurfer, CBCL=child behavior checklist, PPS=prodromal questionnaire-brief child version, TP=timepoint. The ABCD Data Analysis and Informatics Center (DAIC) and the ABCD Imaging Acquisition Workgroup developed the imaging protocol. Scanning took place in 1-2 session, including 3D T1 and 3D T2-weighted images. Data collection occurred at 21 sites using 3 tesla scanners from three different vendors: Siemens, Phillips, and General Electric. Scanning models included Siemens Prisma, Siemens Prisma Fit, Phillips Achieva dStream, Phillips Ingenia, and General Electric Discovery MR750. Repetition time was 2400 to 2500 ms, echo time was 2-2.9 ms, field of view 256 x 240 x 256, FOV phase 93.75% to 100%, matrix 256 x 256, 176 to 225 slices, inversion delay 1060 ms, flip angle of 8°, voxel resolution of 1x1x1 mm, total acquisition ranging from 5 minutes 38 seconds to 7 minutes 12 seconds. DAIC performed processing steps in the Multi-Modal Processing Stream, a software package developed by the Center for Multimodal Imaging and Genetic at the University of California, San Diego. The pipeline includes: (1) preprocessing, which corrects for gradient nonlinearity distortions, intensity scaling and inhomogeneity correction, registration to an averaged reference brain in standard space, and manual quality control). (2) Brain segmentation, including cortical surface reconstruction and subcortical segmentation based on automatic, atlas-based, segmentation procedures in FreeSurfer v5.3 (Hagler Jr et al., 2019) (3) Calculation of morphometric measures using the Desikan-Killiany Atlas for cortical thickness and surface area, and the Aseg atlas for subcortical volumes (Fischl et al., 2002) (4) Post-processing quality control, which entailed manual review by trained technicians for motion, intensity inhomogeneity, white matter underestimation, pial overestimation, and magnetic susceptibility artifact (see (Hagler Jr et al., 2019) for further detail).*

**Sample code for mixed effect models using the nlme package in r (Pinheiro et al., 2021)**

As described in the methods, separate models were run for thickness, area, and subcortical volume. These all related to different research questions, and as such further statistical corrections were not undertaken. Each model corresponding to each research question accounted for all brain regions as part of the model. The data was standardized prior to analyses. Please see below for sample code for baseline PLEs and thickness:

*model <- lme(fixed=PLEIntercept ~ b\_thickness\_BanksofSuperiorTemporalSulcus + b\_thickness\_caudalanteriorcingulate + b\_thickness\_caudalmiddlefrontal + b\_thickness\_cuneus + b\_thickness\_entorhinal + b\_thickness\_fusiform + b\_thickness\_inferiorparietal + b\_thickness\_inferiortemporal + b\_thickness\_isthmuscingulate + b\_thickness\_lateraloccipital + b\_thickness\_lateralorbitofrontal + b\_thickness\_lingual + b\_thickness\_medialorbitofrontal + b\_thickness\_middletemporal + b\_thickness\_parahippocampal + b\_thickness\_paracentral + b\_thickness\_parsopercularis + b\_thickness\_parsorbitalis + b\_thickness\_parstriangularis + b\_thickness\_pericalcarine + b\_thickness\_postcentral + b\_thickness\_posteriorcingulate + b\_thickness\_precentral + b\_thickness\_precuneus + b\_thickness\_rostralanteriorcingulate + b\_thickness\_rostralmiddlefrontal + b\_thickness\_superiorfrontal + b\_thickness\_superiorparietal + b\_thickness\_superiortemporal + b\_thickness\_supramarginal + b\_thickness\_frontalpole + b\_thickness\_temporalpole + b\_thickness\_transversetemporal + b\_thickness\_insula*

 *+ Age + Sex + ZFamilyIncome + ZRaceDic\_1white\_2other + ZMedication, random =~1|Site/FamilyID, na.action=na.exclude, data=data)*

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