
Macroeconomic income inequality, brain structure and function, and mental health

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Supplemental Materials for “State-level income inequality, brain structure and function, and mental health”

Table of Contents

Table S1: State-wise mean income-to-needs ratio and Gini correlation values	3
Table S2: Inequality and brain structure	3
Table S3: Inequality and brain connectivity	5
Table S4: Inequality and brain structure adjusted for total surface area/average thickness	7
Table S5: Model fit with and without Gini coefficient	8
Table S6: Mediation model output for brain structure for mental health at the 18 month follow up	10
Table S7: Mediation model output for brain connectivity for mental health at the 18 month follow up	12
Table S8: Mediation model output controlling for baseline mental health symptoms for mental health at the 18 month follow up	14
Table S9: Mediation model output for brain structure for mental health at the 6 month follow up	14
Table S10: Mediation model output for brain connectivity for mental health at the 6 month follow up	16
Table S11: Main effects of INR and education for brain structure	18
Table S12: Main effects of INR and education for brain connectivity	21
Table S13: Associations between inequality and brain structure in states with only one site	24
Table S14: Associations between inequality and brain connectivity in states with only one site	25
Rationale, Results, and Discussion for Race moderation analyses	27
<i>Rationale and approach</i>	27
<i>Sensitivity Analysis</i>	28
<i>Results</i>	28
Race/ethnicity-related differences in the association of inequality with brain structure and connectivity	28
<i>Figure S1. Race/ethnicity-related differences in brain structure and connectivity.</i>	29
Mediation	30
<i>Table S15: The moderating role of race/ethnicity in the association of inequality and brain structure</i>	<i>30</i>

<i>Table S16: The moderating role of race/ethnicity in the association of inequality and brain connectivity</i>	32
<i>Discussion</i>	33
<i>Limitation</i>	35
<i>Table S17: Simple slope results for race moderation effects</i>	36
Figure S2: Race/ethnicity-related differences in brain structure and connectivity. (race treated as nominal with 4 level)	37
Table S18: Associations between inequality and brain structure adjusted for racial homogeneity (% white)	38
Table S19: Associations between inequality and brain connectivity adjusted for racial homogeneity (% white)	39
Table S20: Moderating role of race/ethnicity in the associations between inequality and brain structure adjusted for racial homogeneity (% white)	41
Table S21: Moderating role of race/ethnicity in the associations between inequality and brain connectivity adjusted for racial homogeneity (% white)	43
Table S22: Model fit statistics for mediation models (structure)	44
Table S23: Model fit statistics for mediation models (connectivity)	46
References	48

Table S1: State-wise mean income-to-needs ratio and Gini correlation values

State	Mean INR	Gini coefficient	Median income	Percent white	TANF
CA	3.82	0.487	71805	62.7	785
CO	4.52	0.455	69117	92.2	508
CT	4.12	0.494	74168	68.9	698
FL	2.56	0.486	52594	73.2	303
MD	3.86	0.453	80776	52.2	709
MI	3.85	0.467	54909	73.8	492
MN	4.61	0.452	57513	91.1	532
MO	3.17	0.462	53578	66.4	292
NY	3.67	0.516	64894	71.7	789
OK	2.75	0.466	50051	76.3	292
OR	4.35	0.459	60212	88	506
PA	1.84	0.478	59195	41.8	421
SC	3.82	0.48	50570	66.2	286
UT	3.2	0.422	68358	94.8	498
VA	3.55	0.467	71535	67.6	442
VT	4.79	0.452	71535	94.6	640
WI	4.22	0.447	59305	86.5	653

The correlation between Gini coefficient and 1) median income at the state level is -0.08; 2) INR is -0.22; 3) % white is -0.55, 4) TANF is 0.17.

Table S2: Inequality and brain structure

Variable	B	SE	T	P
M_smri_thick_cdk_bankssts	0.053	0.012	4.357	1.33E-05
M_smri_thick_cdk_cdacate	-0.064	0.012	-5.253	1.54E-07
M_smri_thick_cdk_cdmdfr	-0.046	0.012	-3.799	1.46E-04
M_smri_thick_cdk_cuneus	-0.132	0.012	-11.094	2.12E-28
M_smri_thick_cdk_ehinal	-0.075	0.012	-6.284	3.47E-10
M_smri_thick_cdk_fusiform	-0.051	0.012	-4.197	2.73E-05
M_smri_thick_cdk_ifpl	-0.038	0.012	-3.276	1.06E-03
M_smri_thick_cdk_iftm	-0.017	0.012	-1.437	1.51E-01
M_smri_thick_cdk_ihcate	-0.067	0.012	-5.436	5.61E-08
M_smri_thick_cdk_locc	-0.108	0.011	-10.087	8.68E-24
M_smri_thick_cdk_lobfr	-0.144	0.012	-11.975	8.96E-33
M_smri_thick_cdk_lingual	-0.109	0.012	-9.244	2.96E-20
M_smri_thick_cdk_mobfr	-0.121	0.012	-10.228	2.09E-24
M_smri_thick_cdk_mdtm	0.014	0.012	1.168	2.43E-01
M_smri_thick_cdk_parahpal	-0.036	0.012	-3.010	2.62E-03

M_smri_thick_cdk_paracn	-0.031	0.012	-2.612	9.02E-03
M_smri_thick_cdk_parsopc	-0.012	0.012	-0.989	3.23E-01
M_smri_thick_cdk_parsobis	-0.034	0.012	-2.831	4.65E-03
M_smri_thick_cdk_parstgris	-0.016	0.012	-1.342	1.80E-01
M_smri_thick_cdk_pericc	-0.122	0.012	-10.296	1.04E-24
M_smri_thick_cdk_postcn	0.002	0.012	0.171	8.64E-01
M_smri_thick_cdk_ptcate	-0.011	0.012	-0.886	3.76E-01
M_smri_thick_cdk_precn	-0.025	0.012	-2.120	3.41E-02
M_smri_thick_cdk_pc	-0.040	0.012	-3.296	9.86E-04
M_smri_thick_cdk_rracate	-0.103	0.012	-8.756	2.43E-18
M_smri_thick_cdk_rrmdfr	-0.094	0.012	-7.780	8.17E-15
M_smri_thick_cdk_sufr	-0.063	0.012	-5.174	2.35E-07
M_smri_thick_cdk_supl	-0.044	0.012	-3.648	2.66E-04
M_smri_thick_cdk_sutm	0.009	0.012	0.723	4.70E-01
M_smri_thick_cdk_sm	0.029	0.011	2.545	1.09E-02
M_smri_thick_cdk_frpole	-0.022	0.012	-1.856	6.35E-02
M_smri_thick_cdk_tmpole	-0.043	0.012	-3.580	3.45E-04
M_smri_thick_cdk_trvtm	-0.038	0.012	-3.147	1.66E-03
M_smri_thick_cdk_insula	-0.146	0.012	-12.256	3.10E-34
M_smri_area_cdk_bankssts	0.017	0.011	1.524	1.27E-01
M_smri_area_cdk_cdacate	-0.031	0.012	-2.593	9.52E-03
M_smri_area_cdk_cdmmdfr	-0.058	0.012	-5.033	4.94E-07
M_smri_area_cdk_cuneus	-0.043	0.012	-3.609	3.09E-04
M_smri_area_cdk_ehinal	-0.013	0.012	-1.126	2.60E-01
M_smri_area_cdk_fusiform	-0.014	0.011	-1.294	1.96E-01
M_smri_area_cdk_ifpl	-0.001	0.011	-0.085	9.33E-01
M_smri_area_cdk_iftm	-0.020	0.011	-1.826	6.79E-02
M_smri_area_cdk_ihcate	-0.036	0.012	-3.144	1.67E-03
M_smri_area_cdk_locc	-0.037	0.011	-3.353	8.04E-04
M_smri_area_cdk_lobfr	-0.046	0.011	-4.073	4.68E-05
M_smri_area_cdk_lingual	-0.021	0.012	-1.767	7.72E-02
M_smri_area_cdk_mobfr	-0.032	0.011	-2.874	4.06E-03
M_smri_area_cdk_mdtm	-0.008	0.011	-0.703	4.82E-01
M_smri_area_cdk_parahpal	0.028	0.012	2.377	1.75E-02
M_smri_area_cdk_paracn	-0.016	0.012	-1.397	1.63E-01
M_smri_area_cdk_parsopc	-0.059	0.012	-5.061	4.27E-07
M_smri_area_cdk_parsobis	-0.069	0.011	-6.191	6.25E-10
M_smri_area_cdk_parstgris	-0.041	0.011	-3.580	3.45E-04
M_smri_area_cdk_pericc	-0.032	0.012	-2.582	9.84E-03
M_smri_area_cdk_postcn	-0.041	0.011	-3.683	2.32E-04
M_smri_area_cdk_ptcate	-0.015	0.012	-1.317	1.88E-01
M_smri_area_cdk_precn	-0.045	0.011	-4.143	3.47E-05
M_smri_area_cdk_pc	-0.048	0.011	-4.212	2.55E-05
M_smri_area_cdk_rracate	-0.039	0.012	-3.338	8.48E-04
M_smri_area_cdk_rrmdfr	-0.060	0.011	-5.488	4.19E-08

M_smri_area_cdk_sufr	-0.044	0.011	-3.939	8.24E-05
M_smri_area_cdk_supl	-0.047	0.012	-4.097	4.22E-05
M_smri_area_cdk_sutm	-0.021	0.011	-1.843	6.54E-02
M_smri_area_cdk_sm	-0.022	0.011	-2.007	4.48E-02
M_smri_area_cdk_frpole	-0.072	0.011	-6.399	1.65E-10
M_smri_area_cdk_tmpole	-0.025	0.011	-2.200	2.79E-02
M_smri_area_cdk_trvtm	-0.022	0.012	-1.821	6.87E-02
M_smri_area_cdk_insula	-0.038	0.011	-3.358	7.88E-04

Table S3: Inequality and brain connectivity

Variable	B	SE	T	P
AN to AN	0.003	0.013	0.223	0.823
AN to CON	-0.031	0.013	-2.385	0.017
CON to CON	-0.115	0.013	-9.158	0.000
CPN to CON	-0.034	0.013	-2.610	0.009
AN to CPN	-0.019	0.013	-1.455	0.146
CPN to CPN	0.019	0.013	1.417	0.157
AN to DMN	-0.026	0.013	-1.985	0.047
CON to DMN	0.056	0.013	4.382	0.000
CPN to DMN	-0.011	0.013	-0.817	0.414
DMN to DMN	-0.063	0.012	-5.033	0.000
DAN to DMN	0.078	0.012	6.246	0.000
AN to DAN	0.039	0.013	3.010	0.003
CON to DAN	0.034	0.013	2.532	0.011
CPN to DAN	0.023	0.013	1.791	0.073
DAN to DAN	-0.011	0.013	-0.868	0.385
AN to FPN	-0.009	0.013	-0.658	0.510
CON to FPN	0.034	0.013	2.571	0.010
CPN to FPN	0.000	0.013	0.022	0.982
DMN to FPN	0.017	0.013	1.266	0.206
DAN to FPN	0.035	0.013	2.686	0.007
FPN to FPN	0.041	0.013	3.163	0.002
AN to RTN	0.066	0.013	5.156	0.000
CON to RTN	0.087	0.013	6.765	0.000
CPN to RTN	0.049	0.013	3.667	0.000
DMN to RTN	0.014	0.013	1.082	0.279
DAN to RTN	-0.049	0.013	-3.719	0.000
FPN to RTN	0.059	0.013	4.482	0.000
RTN to RTN	-0.076	0.013	-5.986	0.000
AN to SN	-0.014	0.013	-1.042	0.297

CON to SN	-0.007	0.013	-0.547	0.584
CPN to SN	0.019	0.013	1.449	0.147
DMN to SN	-0.042	0.013	-3.168	0.002
DAN to SN	0.079	0.013	6.020	0.000
FPN to SN	0.026	0.013	1.979	0.048
RTN to SN	0.080	0.013	6.153	0.000
SN to SN	-0.033	0.013	-2.531	0.011
AN to SMN (H)	0.019	0.013	1.521	0.128
CON to SMN (H)	-0.045	0.013	-3.406	0.001
CPN to SMN (H)	-0.024	0.013	-1.843	0.065
DMN to SMN (H)	-0.039	0.013	-3.020	0.003
DAN to SMN (H)	0.010	0.013	0.757	0.449
FPN to SMN (H)	-0.051	0.013	-3.902	0.000
RTN to SMN (H)	0.058	0.013	4.439	0.000
SN to SMN (H)	-0.034	0.013	-2.615	0.009
SMN (H) to SMN (H)	0.062	0.013	4.793	0.000
AN to SMN (M)	0.028	0.013	2.201	0.028
CON to SMN (M)	-0.035	0.013	-2.641	0.008
CPN to SMN (M)	0.013	0.013	0.966	0.334
DMN to SMN (M)	0.021	0.013	1.609	0.108
DAN to SMN (M)	0.013	0.013	1.017	0.309
FPN to SMN (M)	-0.004	0.013	-0.282	0.778
RTN to SMN (M)	0.027	0.013	2.051	0.040
SN to SMN (M)	-0.020	0.013	-1.546	0.122
SMN (H) to SMN (M)	0.065	0.013	5.061	0.000
SMN (M) to SMN (M)	-0.024	0.013	-1.854	0.064
AN to VAN	-0.001	0.013	-0.043	0.966
CON to VAN	-0.006	0.013	-0.456	0.649
CPN to VAN	-0.019	0.013	-1.439	0.150
DMN to VAN	-0.050	0.013	-3.865	0.000
DAN to VAN	0.032	0.013	2.452	0.014
FPN to VAN	-0.013	0.013	-1.014	0.310
RTN to VAN	0.062	0.013	4.797	0.000
SN to VAN	-0.066	0.013	-5.093	0.000
SMN (H) to VAN	-0.037	0.013	-2.813	0.005
SMN (M) to VAN	0.014	0.013	1.103	0.270
VAN to VAN	-0.026	0.013	-2.003	0.045
VN to VAN	0.096	0.013	7.580	0.000
AN to VN	0.092	0.013	7.060	0.000
CON to VN	0.051	0.013	3.881	0.000
CPN to VN	0.064	0.013	4.827	0.000
DMN to VN	0.081	0.013	6.452	0.000
DAN to VN	-0.073	0.013	-5.590	0.000
FPN to VN	0.040	0.013	3.102	0.002
RTN to VN	-0.080	0.013	-6.156	0.000

SN to VN	0.052	0.013	4.001	0.000
SMN (H) to VN	0.093	0.013	7.188	0.000
SMN (M) to VN	-0.018	0.013	-1.370	0.171
VN to VN	-0.148	0.012	-12.229	0.000

Table S4: Inequality and brain structure adjusted for total surface area/average thickness

Variable	B	SE	T	P	PFDR	
M_smri_thick_cdk_bankssts	0.090	0.009	10.318	8.29E-25	7.04E-24	*
M_smri_thick_cdk_cdacate	-0.021	0.011	-1.957	5.04E-02	0.074562	
M_smri_thick_cdk_cdmfdr	-0.003	0.008	-0.332	7.40E-01	0.785746	
M_smri_thick_cdk_cuneus	-0.098	0.009	-11.147	1.17E-28	1.32E-27	*
M_smri_thick_cdk_ehinal	-0.037	0.010	-3.553	3.83E-04	0.000685	*
M_smri_thick_cdk_fusiform	0.008	0.008	1.120	2.63E-01	0.319204	
M_smri_thick_cdk_ifpl	0.011	0.006	1.710	8.74E-02	0.118839	
M_smri_thick_cdk_iftm	0.043	0.008	5.606	2.14E-08	6.07E-08	*
M_smri_thick_cdk_ihcate	-0.042	0.011	-3.955	7.72E-05	0.000146	*
M_smri_thick_cdk_locc	-0.077	0.006	-12.209	5.44E-34	9.24E-33	*
M_smri_thick_cdk_lobfr	-0.074	0.009	-8.601	9.35E-18	5.30E-17	*
M_smri_thick_cdk_lingual	-0.068	0.009	-7.998	1.43E-15	5.39E-15	*
M_smri_thick_cdk_mobfr	-0.047	0.010	-4.888	1.04E-06	2.35E-06	*
M_smri_thick_cdk_mdtm	0.061	0.007	8.199	2.79E-16	1.18E-15	*
M_smri_thick_cdk_parahpal	-0.009	0.010	-0.831	4.06E-01	0.460404	
M_smri_thick_cdk_paracn	0.015	0.008	1.898	5.78E-02	0.081865	
M_smri_thick_cdk_parsopc	0.047	0.008	5.694	1.29E-08	3.97E-08	*
M_smri_thick_cdk_parsobis	0.005	0.009	0.530	5.96E-01	0.654103	
M_smri_thick_cdk_parstgris	0.042	0.008	5.190	2.16E-07	5.24E-07	*
M_smri_thick_cdk_pericc	-0.093	0.009	-10.013	1.81E-23	1.23E-22	*
M_smri_thick_cdk_postcn	0.044	0.008	5.374	7.90E-08	2.07E-07	*
M_smri_thick_cdk_ptcate	0.027	0.010	2.707	6.80E-03	0.011015	*
M_smri_thick_cdk_precn	0.023	0.008	3.060	2.22E-03	0.003778	*
M_smri_thick_cdk_pc	0.011	0.007	1.585	1.13E-01	0.147656	
M_smri_thick_cdk_rracate	-0.043	0.010	-4.240	2.26E-05	4.79E-05	*
M_smri_thick_cdk_rrmdfr	-0.030	0.007	-4.168	3.11E-05	6.21E-05	*
M_smri_thick_cdk_sufr	-0.016	0.007	-2.281	2.26E-02	0.03488	*
M_smri_thick_cdk_supl	-0.001	0.006	-0.127	8.99E-01	0.925868	
M_smri_thick_cdk_sutm	0.062	0.007	8.409	4.83E-17	2.34E-16	*
M_smri_thick_cdk_sm	0.083	0.006	12.722	1.03E-36	3.49E-35	*
M_smri_thick_cdk_frpole	0.008	0.010	0.833	4.05E-01	0.460404	
M_smri_thick_cdk_tmpole	0.011	0.010	1.172	2.41E-01	0.303766	
M_smri_thick_cdk_trvtm	-0.001	0.009	-0.061	9.51E-01	0.951225	
M_smri_thick_cdk_insula	-0.065	0.010	-6.661	2.90E-11	9.86E-11	*

M_smri_area_cdk_bankssts	0.043	0.008	5.041	4.72E-07	3.51E-06	*
M_smri_area_cdk_cdacate	-0.002	0.009	-0.274	7.84E-01	0.845421	
M_smri_area_cdk_cdmdfr	-0.035	0.008	-4.582	4.66E-06	1.98E-05	*
M_smri_area_cdk_cuneus	-0.006	0.009	-0.636	5.25E-01	0.686364	
M_smri_area_cdk_ehinal	0.004	0.010	0.399	6.90E-01	0.808946	
M_smri_area_cdk_fusiform	0.021	0.006	3.292	9.99E-04	0.003397	*
M_smri_area_cdk_ifpl	0.038	0.007	5.024	5.16E-07	3.51E-06	*
M_smri_area_cdk_iftm	0.018	0.007	2.685	7.26E-03	0.020572	*
M_smri_area_cdk_ihcate	-0.002	0.008	-0.204	8.39E-01	0.864102	
M_smri_area_cdk_locc	-0.004	0.008	-0.543	5.87E-01	0.73967	
M_smri_area_cdk_lobfr	-0.010	0.007	-1.489	1.37E-01	0.290162	
M_smri_area_cdk_lingual	0.008	0.009	0.882	3.78E-01	0.524074	
M_smri_area_cdk_mobfr	0.007	0.007	1.071	2.84E-01	0.492851	
M_smri_area_cdk_mdtm	0.030	0.006	4.887	1.04E-06	5.06E-06	*
M_smri_area_cdk_parahpal	0.046	0.009	4.974	6.70E-07	3.79E-06	*
M_smri_area_cdk_paracn	0.014	0.008	1.739	8.21E-02	0.186125	
M_smri_area_cdk_parsopc	-0.033	0.009	-3.805	1.43E-04	0.00054	*
M_smri_area_cdk_parsobis	-0.041	0.008	-5.465	4.75E-08	5.38E-07	*
M_smri_area_cdk_parstgris	-0.009	0.009	-1.027	3.04E-01	0.492851	
M_smri_area_cdk_pericc	0.000	0.010	-0.010	9.92E-01	0.991999	
M_smri_area_cdk_postcn	0.007	0.006	1.055	2.91E-01	0.492851	
M_smri_area_cdk_ptcate	0.023	0.007	3.130	1.76E-03	0.005425	*
M_smri_area_cdk_precn	-0.007	0.006	-1.039	2.99E-01	0.492851	
M_smri_area_cdk_pc	-0.006	0.007	-0.908	3.64E-01	0.524074	
M_smri_area_cdk_rracate	0.002	0.007	0.259	7.96E-01	0.845421	
M_smri_area_cdk_rrmdfr	-0.037	0.007	-5.584	2.43E-08	4.13E-07	*
M_smri_area_cdk_sufr	-0.015	0.006	-2.625	8.68E-03	0.022706	*
M_smri_area_cdk_supl	-0.007	0.007	-0.953	3.41E-01	0.524074	
M_smri_area_cdk_sutm	0.013	0.006	2.136	3.27E-02	0.079439	
M_smri_area_cdk_sm	0.009	0.007	1.270	2.04E-01	0.408146	
M_smri_area_cdk_frpole	-0.046	0.008	-6.010	1.94E-09	6.58E-08	*
M_smri_area_cdk_tmpole	0.003	0.008	0.323	7.47E-01	0.845421	
M_smri_area_cdk_trvtm	0.008	0.009	0.868	3.85E-01	0.524074	
M_smri_area_cdk_insula	-0.003	0.007	-0.414	6.79E-01	0.808946	

Table S5: Model fit with and without Gini coefficient

<i>Outcome Variable</i>	$\Delta\chi^2$ (<i>df</i> = 1)	<i>p-value</i>	<i>AIC (without Gini)</i>	<i>AIC (with Gini)</i>	<i>Chi²</i>	<i>Marginal R²(without Gini)</i>	<i>Marginal R²(with Gini)</i>
<i>Cortical Thickness</i>	35.61	< 0.001	27236	27202		0.09	0.094
<i>Cortical Volume</i>	29.65	< 0.001	24283	24256		0.298	0.300

<i>Cortical Surface Area</i>	18.30	< 0.001	24428	24412	0.289	0.291
<i>Auditory – CON rsFC</i>	5.70	0.017	23387	23383	0.056	0.057
<i>Within-CON rsFC</i>	83.42	< 0.001	22685	22604	0.012	0.013

Table S6: Mediation model output for brain structure for mental health at the 18 month follow up

	Path A			Path B			Path C			Indirect effect				Total effect		
Mediator	B	SE	P	B	SE	P	B	SE	P	B	P	CI lower	CI upper	B	SE	P
smri_area_cdk_total_residuals	-0.015	0.005	0.002	-0.122	0.025	0.000	0.033	0.012	0.005	0.002	0.009	0.001	0.003	0.034	0.012	0.003
smri_thick_cdk_mean_residuals	-0.036	0.007	0.000	0.010	0.019	0.590	0.035	0.012	0.003	0.000	0.598	-0.002	0.001	0.034	0.012	0.003
smri_vol_scs_wholeb_residuals	-0.020	0.005	0.000	-0.118	0.026	0.000	0.032	0.012	0.006	0.002	0.002	0.001	0.004	0.034	0.012	0.003
M_smri_thick_cdk_bankssts_residuals	0.032	0.008	0.000	0.008	0.015	0.584	0.034	0.012	0.003	0.000	0.599	-0.001	0.001	0.034	0.012	0.003
M_smri_thick_cdk_cdacate_residuals	-0.039	0.008	0.000	0.007	0.015	0.632	0.035	0.012	0.004	0.000	0.642	-0.002	0.001	0.034	0.012	0.004
M_smri_thick_cdk_cdmdfr_residuals	-0.031	0.007	0.000	0.006	0.017	0.731	0.035	0.012	0.003	0.000	0.741	-0.001	0.001	0.034	0.012	0.003
M_smri_thick_cdk_cuneus_residuals	-0.076	0.007	0.000	-0.017	0.016	0.302	0.033	0.012	0.005	0.001	0.308	-0.001	0.004	0.034	0.012	0.003
M_smri_thick_cdk_ehinal_residuals	-0.046	0.008	0.000	0.000	0.015	0.974	0.034	0.012	0.003	0.000	0.974	-0.001	0.001	0.034	0.012	0.003
M_smri_thick_cdk_fusiform_residuals	-0.026	0.008	0.001	0.015	0.017	0.376	0.035	0.012	0.003	0.000	0.412	-0.002	0.000	0.034	0.012	0.003
M_smri_thick_cdk_ifpl_residuals	-0.023	0.007	0.001	0.020	0.017	0.228	0.035	0.012	0.002	0.000	0.270	-0.001	0.000	0.034	0.011	0.003
M_smri_thick_cdk_ihcate_residuals	-0.038	0.008	0.000	0.043	0.016	0.006	0.036	0.012	0.002	-0.002	0.016	-0.003	0.000	0.034	0.012	0.003
M_smri_thick_cdk_locc_residuals	-0.053	0.006	0.000	-0.027	0.021	0.204	0.033	0.012	0.005	0.001	0.214	-0.001	0.004	0.034	0.012	0.003
M_smri_thick_cdk_lobfr_residuals	-0.081	0.008	0.000	-0.011	0.015	0.474	0.034	0.012	0.004	0.001	0.477	-0.001	0.003	0.034	0.011	0.003
M_smri_thick_cdk_lingual_residuals	-0.053	0.007	0.000	-0.022	0.018	0.213	0.033	0.012	0.004	0.001	0.219	-0.001	0.003	0.034	0.011	0.003
M_smri_thick_cdk_mobfr_residuals	-0.076	0.008	0.000	0.000	0.014	0.976	0.034	0.012	0.003	0.000	0.976	-0.002	0.002	0.034	0.012	0.003
M_smri_thick_cdk_parahpal_residuals	-0.020	0.007	0.006	0.000	0.016	0.997	0.034	0.012	0.003	0.000	0.997	-0.001	0.001	0.034	0.012	0.003
M_smri_thick_cdk_paracn_residuals	-0.018	0.007	0.014	-0.020	0.016	0.221	0.034	0.012	0.003	0.000	0.304	0.000	0.001	0.034	0.012	0.003
M_smri_thick_cdk_parsobis_residuals	-0.024	0.008	0.003	0.035	0.015	0.018	0.035	0.012	0.003	-0.001	0.065	-0.002	0.000	0.034	0.012	0.003
M_smri_thick_cdk_pericc_residuals	-0.063	0.007	0.000	-0.042	0.018	0.019	0.032	0.012	0.006	0.003	0.025	0.000	0.005	0.034	0.011	0.003
M_smri_thick_cdk_precn_residuals	-0.014	0.007	0.055	-0.015	0.016	0.348	0.034	0.011	0.003	0.000	0.444	0.000	0.001	0.034	0.011	0.003
M_smri_thick_cdk_pc_residuals	-0.021	0.007	0.004	0.012	0.016	0.460	0.035	0.012	0.003	0.000	0.497	-0.001	0.000	0.034	0.012	0.003
M_smri_thick_cdk_rracate_residuals	-0.067	0.009	0.000	0.002	0.014	0.897	0.035	0.012	0.004	0.000	0.898	-0.002	0.002	0.034	0.012	0.003
M_smri_thick_cdk_rrmdfr_residuals	-0.054	0.007	0.000	0.029	0.017	0.088	0.036	0.012	0.002	-0.002	0.096	-0.003	0.000	0.034	0.012	0.003
M_smri_thick_cdk_sufr_residuals	-0.038	0.007	0.000	0.023	0.018	0.200	0.035	0.012	0.002	-0.001	0.221	-0.002	0.000	0.034	0.012	0.003
M_smri_thick_cdk_supl_residuals	-0.026	0.007	0.000	0.020	0.017	0.243	0.035	0.011	0.002	-0.001	0.276	-0.002	0.000	0.034	0.011	0.003
M_smri_thick_cdk_sm_residuals	0.017	0.007	0.014	0.034	0.017	0.048	0.034	0.012	0.004	0.001	0.142	0.000	0.002	0.034	0.012	0.003

M_smri_thick_cdk_tmpole_residuals	-0.028	0.009	0.001	0.008	0.013	0.566	0.035	0.012	0.003	0.000	0.592	-0.001	0.000	0.034	0.012	0.003
M_smri_thick_cdk_trvtm_residuals	-0.021	0.008	0.008	0.023	0.015	0.141	0.035	0.012	0.003	0.000	0.221	-0.002	0.000	0.034	0.012	0.003
M_smri_thick_cdk_insula_residuals	-0.088	0.008	0.000	0.020	0.015	0.184	0.036	0.012	0.002	-0.002	0.187	-0.005	0.001	0.034	0.012	0.003
M_smri_area_cdk_cdacate_residuals	-0.019	0.007	0.008	-0.083	0.016	0.000	0.033	0.012	0.005	0.002	0.021	0.000	0.003	0.034	0.012	0.003
M_smri_area_cdk_cdmdfr_residuals	-0.030	0.007	0.000	-0.048	0.017	0.006	0.033	0.012	0.005	0.001	0.020	0.000	0.003	0.034	0.012	0.003
M_smri_area_cdk_cuneus_residuals	-0.015	0.006	0.010	-0.047	0.020	0.019	0.034	0.012	0.004	0.001	0.096	0.000	0.002	0.034	0.012	0.003
M_smri_area_cdk_ihcate_residuals	-0.018	0.007	0.006	-0.047	0.018	0.008	0.034	0.012	0.004	0.001	0.062	0.000	0.002	0.034	0.012	0.003
M_smri_area_cdk_locc_residuals	-0.014	0.006	0.011	-0.063	0.020	0.002	0.033	0.012	0.004	0.001	0.057	0.000	0.002	0.034	0.012	0.003
M_smri_area_cdk_lobfr_residuals	-0.021	0.006	0.000	-0.084	0.020	0.000	0.033	0.012	0.006	0.002	0.009	0.001	0.003	0.034	0.012	0.004
M_smri_area_cdk_mobfr_residuals	-0.015	0.006	0.013	-0.072	0.020	0.000	0.033	0.012	0.005	0.001	0.047	0.000	0.002	0.034	0.012	0.003
M_smri_area_cdk_parahpal_residuals	0.015	0.007	0.031	-0.041	0.017	0.017	0.035	0.012	0.002	-0.001	0.118	-0.002	0.000	0.034	0.012	0.003
M_smri_area_cdk_parsopc_residuals	-0.033	0.007	0.000	-0.047	0.017	0.006	0.033	0.011	0.004	0.002	0.019	0.000	0.003	0.034	0.011	0.002
M_smri_area_cdk_parsobis_residuals	-0.034	0.006	0.000	-0.063	0.018	0.001	0.032	0.012	0.005	0.002	0.005	0.001	0.004	0.034	0.012	0.003
M_smri_area_cdk_parstgris_residuals	-0.028	0.008	0.000	-0.052	0.016	0.001	0.033	0.012	0.004	0.001	0.015	0.001	0.003	0.034	0.012	0.003
M_smri_area_cdk_pericc_residuals	-0.012	0.006	0.048	-0.036	0.021	0.084	0.034	0.012	0.003	0.000	0.223	0.000	0.001	0.034	0.012	0.003
M_smri_area_cdk_postcn_residuals	-0.016	0.006	0.007	-0.063	0.020	0.002	0.033	0.012	0.004	0.001	0.048	0.000	0.002	0.034	0.012	0.003
M_smri_area_cdk_precn_residuals	-0.018	0.006	0.001	-0.067	0.021	0.001	0.033	0.012	0.005	0.001	0.027	0.000	0.003	0.034	0.012	0.003
M_smri_area_cdk_pc_residuals	-0.018	0.006	0.002	-0.046	0.021	0.026	0.034	0.012	0.004	0.001	0.083	0.000	0.002	0.034	0.012	0.003
M_smri_area_cdk_rracate_residuals	-0.020	0.006	0.002	-0.067	0.019	0.000	0.033	0.012	0.005	0.001	0.022	0.000	0.003	0.034	0.012	0.003
M_smri_area_cdk_rrmdfr_residuals	-0.032	0.006	0.000	-0.095	0.019	0.000	0.031	0.012	0.007	0.003	0.000	0.002	0.005	0.034	0.012	0.003
M_smri_area_cdk_sufr_residuals	-0.018	0.006	0.001	-0.097	0.020	0.000	0.033	0.012	0.006	0.002	0.008	0.001	0.003	0.034	0.012	0.004
M_smri_area_cdk_supl_residuals	-0.019	0.006	0.002	-0.046	0.019	0.017	0.034	0.012	0.004	0.001	0.069	0.000	0.002	0.034	0.012	0.003
M_smri_area_cdk_frpole_residuals	-0.039	0.007	0.000	-0.061	0.017	0.000	0.032	0.012	0.006	0.002	0.003	0.001	0.004	0.034	0.012	0.003
M_smri_area_cdk_tmpole_residuals	-0.013	0.006	0.039	-0.016	0.018	0.371	0.034	0.011	0.003	0.000	0.446	0.000	0.001	0.034	0.011	0.003
M_smri_area_cdk_insula_residuals	-0.016	0.006	0.013	-0.066	0.019	0.000	0.033	0.011	0.004	0.001	0.053	0.000	0.002	0.034	0.011	0.003

Table S7: Mediation model output for brain connectivity for mental health at the 18 month follow up

Mediator	Path A			Path B			Path C			Indirect effect				Total effect		
	B	SE	P	B	SE	P	B	SE	P	B	P	CI lower	CI upper	B	SE	P
dorsal_attention_network to default_network	0.058	0.010	0.000	0.070	0.015	0.000	0.030	0.013	0.017	0.004	< 0.001	0.002	0.007	0.034	0.013	0.007
cingulo_opercular_network to default_network	0.040	0.010	0.000	0.072	0.016	0.000	0.031	0.013	0.014	0.003	0.003	0.001	0.005	0.034	0.013	0.007
retrosplenial_temporal_network to ventral_attention_network	0.048	0.010	0.000	0.044	0.014	0.001	0.032	0.013	0.012	0.002	0.009	0.001	0.004	0.034	0.013	0.008
cingulo_opercular_network to fronto_parietal_network	0.029	0.011	0.010	0.050	0.013	0.000	0.033	0.013	0.010	0.001	0.037	0.000	0.003	0.034	0.013	0.007
retrosplenial_temporal_network to retrosplenial_temporal_network	-0.055	0.009	0.000	-0.032	0.015	0.028	0.033	0.013	0.009	0.002	0.042	0.000	0.004	0.034	0.013	0.006
default_network to default_network	-0.039	0.009	0.000	-0.037	0.015	0.016	0.033	0.012	0.008	0.001	0.043	0.000	0.003	0.034	0.012	0.006
salience_network to salience_network	-0.034	0.011	0.003	0.037	0.013	0.005	0.036	0.013	0.006	-0.001	0.048	-0.003	0.000	0.034	0.013	0.008
fronto_parietal_network to fronto_parietal_network	0.031	0.010	0.002	-0.037	0.014	0.008	0.035	0.013	0.005	-0.001	0.048	-0.003	0.000	0.034	0.013	0.007
auditory_network to retrosplenial_temporal_network	0.054	0.010	0.000	0.031	0.015	0.032	0.033	0.013	0.011	0.002	0.050	0.000	0.004	0.034	0.013	0.008
cingulo_opercular_network to retrosplenial_temporal_network	0.064	0.010	0.000	0.029	0.014	0.040	0.032	0.013	0.012	0.002	0.053	0.000	0.004	0.034	0.013	0.008
dorsal_attention_network to visual_network	-0.062	0.011	0.000	-0.027	0.013	0.042	0.033	0.013	0.010	0.002	0.059	0.000	0.004	0.034	0.013	0.007
cingulo_opercular_network to visual_network	0.045	0.011	0.000	-0.026	0.013	0.052	0.036	0.013	0.005	-0.001	0.090	-0.003	0.000	0.034	0.013	0.006
dorsal_attention_network to fronto_parietal_network	0.026	0.011	0.023	0.035	0.013	0.007	0.033	0.013	0.009	0.001	0.099	0.000	0.002	0.034	0.013	0.008
dorsal_attention_network to salience_network	0.056	0.011	0.000	0.024	0.013	0.078	0.033	0.013	0.009	0.001	0.101	0.000	0.003	0.034	0.013	0.007
cingulo_opercular_network to cingulo_opercular_network	-0.079	0.009	0.000	-0.027	0.017	0.097	0.032	0.013	0.012	0.002	0.108	0.000	0.005	0.034	0.013	0.007
dorsal_attention_network to ventral_attention_network	0.029	0.010	0.004	0.028	0.014	0.041	0.034	0.013	0.009	0.001	0.108	0.000	0.002	0.034	0.013	0.007
auditory_network to visual_network	0.071	0.010	0.000	0.022	0.015	0.129	0.033	0.013	0.010	0.002	0.141	0.000	0.004	0.034	0.013	0.007
fronto_parietal_network to retrosplenial_temporal_network	0.038	0.011	0.001	0.020	0.013	0.121	0.034	0.013	0.009	0.001	0.171	0.000	0.002	0.034	0.013	0.008
fronto_parietal_network to visual_network	0.026	0.011	0.021	0.024	0.013	0.069	0.034	0.013	0.008	0.001	0.178	0.000	0.002	0.034	0.013	0.007
cingulo_opercular_network to dorsal_attention_network	0.028	0.011	0.013	-0.023	0.014	0.101	0.035	0.013	0.006	-0.001	0.198	-0.002	0.000	0.034	0.013	0.007
visual_network to ventral_attention_network	0.076	0.011	0.000	0.018	0.014	0.190	0.033	0.013	0.010	0.001	0.200	-0.001	0.004	0.034	0.013	0.007
default_network to visual_network	0.059	0.011	0.000	0.015	0.013	0.252	0.033	0.013	0.009	0.001	0.272	-0.001	0.003	0.034	0.013	0.008
fronto_parietal_network to sensorimotor_hand_network	-0.034	0.010	0.001	0.017	0.015	0.248	0.035	0.013	0.006	-0.001	0.297	-0.002	0.000	0.034	0.013	0.007
auditory_network to dorsal_attention_network	0.035	0.011	0.002	0.014	0.012	0.249	0.034	0.013	0.008	0.001	0.300	0.000	0.002	0.034	0.013	0.007
default_network to ventral_attention_network	-0.036	0.010	0.000	-0.016	0.015	0.283	0.034	0.013	0.007	0.001	0.321	0.000	0.002	0.034	0.013	0.006
cingulo_parietal_network to retrosplenial_temporal_network	0.027	0.010	0.006	0.016	0.014	0.264	0.034	0.013	0.008	0.000	0.322	0.000	0.002	0.034	0.013	0.007

default_network to salience_network	-0.024	0.011	0.037	0.015	0.013	0.248	0.035	0.013	0.006	0.000	0.349	-0.001	0.000	0.034	0.013	0.007
visual_network to visual_network	-0.108	0.010	0.000	-0.014	0.015	0.369	0.033	0.013	0.010	0.001	0.374	-0.002	0.005	0.034	0.013	0.007
retrosplenial_temporal_network to visual_network	-0.076	0.011	0.000	-0.011	0.013	0.370	0.033	0.013	0.008	0.001	0.378	-0.001	0.003	0.034	0.013	0.007
auditory_network to sensorimotor_mouth_network	0.027	0.010	0.008	-0.014	0.014	0.331	0.035	0.013	0.007	0.000	0.388	-0.001	0.000	0.034	0.013	0.007
salience_network to sensorimotor_hand_network	-0.046	0.011	0.000	-0.012	0.013	0.385	0.034	0.013	0.008	0.001	0.402	-0.001	0.002	0.034	0.013	0.008
sensorimotor_hand_network to ventral_attention_network	-0.022	0.012	0.054	0.012	0.013	0.367	0.035	0.013	0.007	0.000	0.460	-0.001	0.000	0.034	0.013	0.007
dorsal_attention_network to retrosplenial_temporal_network	-0.044	0.010	0.000	-0.011	0.014	0.439	0.034	0.013	0.008	0.000	0.462	-0.001	0.002	0.034	0.013	0.007
sensorimotor_hand_network to sensorimotor_mouth_network	0.047	0.009	0.000	0.012	0.016	0.452	0.034	0.013	0.008	0.001	0.465	-0.001	0.002	0.034	0.013	0.007
default_network to sensorimotor_hand_network	-0.031	0.011	0.004	0.012	0.015	0.428	0.035	0.013	0.007	0.000	0.467	-0.002	0.000	0.034	0.013	0.007
auditory_network to cingulo_opercular_network	-0.028	0.011	0.009	0.011	0.014	0.435	0.035	0.013	0.006	0.000	0.476	-0.001	0.000	0.034	0.013	0.007
cingulo_opercular_network to sensorimotor_mouth_network	-0.029	0.011	0.013	0.008	0.012	0.524	0.035	0.013	0.007	0.000	0.567	-0.001	0.000	0.034	0.013	0.008
retrosplenial_temporal_network to salience_network	0.060	0.010	0.000	0.007	0.014	0.617	0.034	0.013	0.007	0.000	0.621	-0.001	0.002	0.034	0.013	0.006
sensorimotor_hand_network to sensorimotor_hand_network	0.046	0.010	0.000	0.005	0.015	0.741	0.034	0.013	0.007	0.000	0.746	-0.001	0.002	0.034	0.013	0.007
sensorimotor_hand_network to visual_network	0.066	0.010	0.000	0.005	0.015	0.753	0.034	0.013	0.008	0.000	0.758	-0.002	0.002	0.034	0.013	0.007
cingulo_opercular_network to sensorimotor_hand_network	-0.033	0.010	0.001	-0.004	0.015	0.785	0.034	0.013	0.007	0.000	0.795	-0.001	0.001	0.034	0.013	0.007
salience_network to sensorimotor_hand_network	-0.030	0.011	0.005	0.004	0.014	0.784	0.034	0.013	0.006	0.000	0.798	-0.001	0.001	0.034	0.013	0.006
salience_network to visual_network	0.045	0.012	0.000	-0.003	0.012	0.792	0.034	0.013	0.006	0.000	0.801	-0.001	0.001	0.034	0.013	0.006
cingulo_parietal_network to cingulo_opercular_network	-0.027	0.011	0.016	-0.002	0.013	0.877	0.034	0.013	0.006	0.000	0.886	-0.001	0.001	0.034	0.013	0.006
cingulo_parietal_network to visual_network	0.043	0.011	0.000	0.001	0.014	0.958	0.034	0.013	0.007	0.000	0.959	-0.001	0.001	0.034	0.013	0.006
retrosplenial_temporal_network to sensorimotor_hand_network	0.052	0.011	0.000	0.000	0.013	0.999	0.034	0.013	0.007	0.000	0.999	-0.001	0.001	0.034	0.013	0.007

Table S8: Mediation model output controlling for baseline mental health symptoms for mental health at the 18 month follow up

	Path A			Path B			Path C			Indirect effect				Total effect		
Mediator	B	SE	P	B	SE	P	B	SE	P	B	P	CI lower	CI upper	B	SE	P
dorsal_attention_network to default_network	0.058	0.010	0.000	0.058	0.014	0.000	0.035	0.012	0.004	0.003	0.001	0.002	0.006	0.039	0.012	0.001
smri_area_cdk_total_residuals	-0.016	0.005	0.001	-0.084	0.024	0.000	0.038	0.011	0.001	0.001	0.019	0.000	0.003	0.040	0.011	0.000
smri_vol_scs_wholeb_residuals	-0.020	0.005	0.000	-0.081	0.025	0.001	0.038	0.011	0.001	0.002	0.010	0.001	0.003	0.040	0.011	0.000

Table S9: Mediation model output for brain structure for mental health at the 6 month follow up

	Path A			Path B			Path C			Indirect effect				Total effect		
Mediator	B	SE	P	B	SE	P	B	SE	P	B	P	CI lower	CI upper	B	SE	P
smri_area_cdk_total	-0.017	0.005	0.000	-0.147	0.025	0.000	0.011	0.012	0.354	0.003	0.002	0.001	0.004	0.013	0.252	0.252
smri_thick_cdk_mean	-0.037	0.007	0.000	-0.013	0.019	0.488	0.013	0.012	0.272	0.000	0.497	-0.001	0.002	0.013	0.254	0.254
smri_vol_scs_wholeb	-0.021	0.005	0.000	-0.141	0.027	0.000	0.010	0.012	0.373	0.003	0.001	0.002	0.005	0.013	0.249	0.249
M_smri_thick_cdk_bankssts	0.035	0.008	0.000	-0.011	0.014	0.440	0.014	0.012	0.244	0.000	0.455	-0.001	0.001	0.013	0.258	0.258
M_smri_thick_cdk_cdacate	-0.039	0.008	0.000	0.019	0.015	0.204	0.014	0.012	0.231	-0.001	0.229	-0.002	0.000	0.013	0.255	0.255
M_smri_thick_cdk_cdmfdr	-0.028	0.007	0.000	-0.017	0.017	0.307	0.013	0.012	0.278	0.000	0.338	0.000	0.002	0.013	0.259	0.259
M_smri_thick_cdk_cuneus	-0.075	0.007	0.000	-0.039	0.016	0.016	0.010	0.012	0.373	0.003	0.019	0.001	0.005	0.013	0.252	0.252
M_smri_thick_cdk_ehinal	-0.047	0.008	0.000	-0.011	0.015	0.434	0.013	0.011	0.265	0.001	0.446	-0.001	0.002	0.013	0.245	0.245
M_smri_thick_cdk_fusiform	-0.030	0.008	0.000	-0.016	0.016	0.305	0.013	0.012	0.278	0.000	0.341	0.000	0.002	0.013	0.259	0.259

M_smri_thick_cdk_ifpl	-0.024	0.007	0.001	0.009	0.017	0.574	0.014	0.012	0.245	0.000	0.596	-0.001	0.001	0.013	0.252	0.252
M_smri_thick_cdk_ihcate	-0.041	0.007	0.000	0.030	0.016	0.061	0.015	0.012	0.215	-0.001	0.076	-0.003	0.000	0.013	0.255	0.255
M_smri_thick_cdk_locc	-0.053	0.006	0.000	-0.060	0.021	0.004	0.010	0.012	0.390	0.003	0.006	0.001	0.006	0.013	0.256	0.256
M_smri_thick_cdk_lobfr	-0.084	0.008	0.000	-0.012	0.015	0.425	0.012	0.012	0.303	0.001	0.427	-0.001	0.004	0.013	0.260	0.260
M_smri_thick_cdk_lingual	-0.056	0.006	0.000	-0.064	0.018	0.000	0.010	0.012	0.411	0.004	0.001	0.002	0.006	0.013	0.259	0.259
M_smri_thick_cdk_mobfr	-0.079	0.008	0.000	0.006	0.014	0.686	0.014	0.012	0.249	0.000	0.689	-0.003	0.002	0.013	0.262	0.262
M_smri_thick_cdk_parahpal	-0.021	0.007	0.004	-0.023	0.016	0.146	0.013	0.012	0.281	0.000	0.216	0.000	0.002	0.013	0.263	0.263
M_smri_thick_cdk_paracn	-0.018	0.008	0.018	-0.039	0.016	0.013	0.013	0.012	0.285	0.001	0.109	0.000	0.002	0.013	0.259	0.259
M_smri_thick_cdk_parsobis	-0.024	0.008	0.003	0.002	0.015	0.916	0.013	0.012	0.253	0.000	0.920	-0.001	0.001	0.013	0.254	0.254
M_smri_thick_cdk_pericc	-0.064	0.007	0.000	-0.045	0.018	0.012	0.010	0.012	0.371	0.003	0.016	0.001	0.005	0.013	0.252	0.252
M_smri_thick_cdk_precn	-0.015	0.008	0.042	-0.043	0.016	0.008	0.013	0.012	0.278	0.001	0.126	0.000	0.002	0.013	0.254	0.254
M_smri_thick_cdk_pc	-0.022	0.007	0.002	-0.001	0.017	0.966	0.013	0.012	0.249	0.000	0.968	-0.001	0.001	0.013	0.248	0.248
M_smri_thick_cdk_rracate	-0.070	0.009	0.000	-0.002	0.014	0.895	0.013	0.012	0.262	0.000	0.897	-0.002	0.002	0.013	0.254	0.254
M_smri_thick_cdk_rrmdfr	-0.052	0.007	0.000	0.021	0.017	0.224	0.014	0.012	0.225	-0.001	0.230	-0.003	0.001	0.013	0.261	0.261
M_smri_thick_cdk_sufr	-0.038	0.007	0.000	0.028	0.018	0.121	0.014	0.012	0.216	-0.001	0.142	-0.003	0.000	0.013	0.250	0.250
M_smri_thick_cdk_supl	-0.026	0.007	0.000	0.007	0.016	0.663	0.014	0.012	0.242	0.000	0.675	-0.001	0.001	0.013	0.248	0.248
M_smri_thick_cdk_sm	0.019	0.007	0.005	0.011	0.017	0.521	0.013	0.012	0.256	0.000	0.556	0.000	0.001	0.013	0.249	0.249
M_smri_thick_cdk_tmpole	-0.029	0.009	0.001	0.003	0.013	0.838	0.013	0.012	0.260	0.000	0.846	-0.001	0.001	0.013	0.263	0.263
M_smri_thick_cdk_trvtm	-0.024	0.008	0.002	0.008	0.015	0.575	0.014	0.012	0.249	0.000	0.603	-0.001	0.000	0.013	0.256	0.256
M_smri_thick_cdk_insula	-0.091	0.008	0.000	-0.005	0.015	0.716	0.013	0.012	0.278	0.000	0.717	-0.002	0.003	0.013	0.257	0.257
M_smri_area_cdk_cdacate	-0.019	0.007	0.008	-0.095	0.016	0.000	0.012	0.012	0.325	0.002	0.017	0.001	0.004	0.013	0.255	0.255
M_smri_area_cdk_cdmmdfr	-0.031	0.007	0.000	-0.083	0.018	0.000	0.011	0.012	0.361	0.003	0.002	0.001	0.004	0.013	0.258	0.258
M_smri_area_cdk_cuneus	-0.018	0.006	0.002	-0.062	0.020	0.002	0.012	0.012	0.296	0.001	0.032	0.000	0.003	0.013	0.254	0.254
M_smri_area_cdk_ihcate	-0.020	0.007	0.002	-0.071	0.018	0.000	0.012	0.012	0.309	0.001	0.017	0.000	0.003	0.013	0.254	0.254
M_smri_area_cdk_locc	-0.018	0.006	0.002	-0.083	0.020	0.000	0.012	0.011	0.302	0.001	0.015	0.001	0.003	0.013	0.245	0.245
M_smri_area_cdk_lobfr	-0.024	0.006	0.000	-0.106	0.020	0.000	0.011	0.012	0.355	0.003	0.001	0.001	0.004	0.013	0.253	0.253
M_smri_area_cdk_mobfr	-0.017	0.006	0.006	-0.093	0.019	0.000	0.012	0.012	0.312	0.002	0.020	0.000	0.003	0.013	0.252	0.252
M_smri_area_cdk_parahpal	0.011	0.007	0.110	-0.037	0.017	0.028	0.014	0.012	0.247	0.000	0.220	-0.001	0.000	0.013	0.261	0.261
M_smri_area_cdk_parsopc	-0.032	0.007	0.000	-0.054	0.017	0.002	0.012	0.012	0.320	0.002	0.011	0.001	0.003	0.013	0.252	0.252
M_smri_area_cdk_parsobis	-0.038	0.006	0.000	-0.089	0.018	0.000	0.010	0.012	0.400	0.003	0.000	0.002	0.005	0.013	0.259	0.259
M_smri_area_cdk_parstgris	-0.029	0.008	0.000	-0.052	0.015	0.001	0.012	0.012	0.313	0.001	0.012	0.001	0.003	0.013	0.257	0.257

M_smri_area_cdk_pericc	-0.014	0.006	0.022	-0.054	0.020	0.007	0.013	0.012	0.278	0.001	0.090	0.000	0.002	0.013	0.251	0.251
M_smri_area_cdk_postcn	-0.018	0.006	0.003	-0.101	0.020	0.000	0.011	0.012	0.335	0.002	0.011	0.001	0.004	0.013	0.262	0.262
M_smri_area_cdk_precn	-0.022	0.006	0.000	-0.114	0.021	0.000	0.011	0.012	0.355	0.002	0.002	0.001	0.004	0.013	0.256	0.256
M_smri_area_cdk_pc	-0.021	0.006	0.001	-0.073	0.021	0.000	0.012	0.012	0.316	0.002	0.016	0.001	0.003	0.013	0.260	0.260
M_smri_area_cdk_rracate	-0.019	0.006	0.003	-0.103	0.019	0.000	0.011	0.012	0.330	0.002	0.011	0.001	0.004	0.013	0.256	0.256
M_smri_area_cdk_rrmdfr	-0.034	0.006	0.000	-0.088	0.019	0.000	0.010	0.012	0.371	0.003	0.000	0.002	0.005	0.013	0.250	0.250
M_smri_area_cdk_sufr	-0.021	0.006	0.000	-0.111	0.021	0.000	0.011	0.012	0.354	0.002	0.003	0.001	0.004	0.013	0.263	0.263
M_smri_area_cdk_supl	-0.021	0.006	0.000	-0.084	0.020	0.000	0.012	0.012	0.323	0.002	0.009	0.001	0.004	0.013	0.254	0.254
M_smri_area_cdk_frpole	-0.041	0.007	0.000	-0.092	0.017	0.000	0.010	0.012	0.419	0.004	0.000	0.002	0.006	0.013	0.258	0.258
M_smri_area_cdk_tmpole	-0.017	0.007	0.007	-0.044	0.018	0.016	0.013	0.012	0.298	0.001	0.085	0.000	0.002	0.013	0.269	0.269
M_smri_area_cdk_insula	-0.018	0.006	0.004	-0.101	0.019	0.000	0.012	0.012	0.322	0.002	0.013	0.001	0.004	0.013	0.252	0.252

Table S10: Mediation model output for brain connectivity for mental health at the 6 month follow up

Mediator	Path A			Path B			Path C			Indirect effect				Total effect		
	B	SE	P	B	SE	P	B	SE	P	B	P	CI lower	CI upper	B	SE	P
dorsal_attention_network to default_network	0.059	0.010	0.000	0.079	0.015	0.000	0.000	0.013	0.987	0.005	0.000	0.003	0.007	0.005	0.709	0.709
cingulo_opercular_network to default_network	0.039	0.010	0.000	0.070	0.016	0.000	0.002	0.013	0.872	0.003	0.003	0.001	0.005	0.005	0.712	0.712
default_network to default_network	-0.041	0.009	0.000	-0.047	0.016	0.003	0.003	0.013	0.820	0.002	0.016	0.001	0.004	0.005	0.707	0.707
cingulo_opercular_network to fronto_parietal_network	0.033	0.011	0.003	0.054	0.013	0.000	0.003	0.013	0.809	0.002	0.017	0.001	0.004	0.005	0.705	0.705
cingulo_opercular_network to visual_network	0.038	0.012	0.001	-0.044	0.013	0.001	0.007	0.013	0.608	-0.002	0.021	-0.004	-0.001	0.005	0.705	0.705
retrosplenial_temporal_network to retrosplenial_temporal_network	-0.052	0.009	0.000	-0.037	0.015	0.013	0.003	0.013	0.820	0.002	0.025	0.000	0.004	0.005	0.705	0.705
fronto_parietal_network to fronto_parietal_network	0.029	0.010	0.005	-0.046	0.014	0.001	0.006	0.013	0.635	-0.001	0.029	-0.003	0.000	0.005	0.709	0.709
cingulo_opercular_network to cingulo_opercular_network	-0.075	0.009	0.000	-0.034	0.016	0.036	0.002	0.013	0.860	0.003	0.044	0.000	0.005	0.005	0.711	0.711
dorsal_attention_network to visual_network	-0.063	0.011	0.000	-0.028	0.013	0.032	0.003	0.013	0.810	0.002	0.045	0.000	0.004	0.005	0.705	0.705
sensorimotor_hand_network to sensorimotor_mouth_network	0.052	0.009	0.000	0.034	0.016	0.039	0.003	0.013	0.814	0.002	0.055	0.000	0.004	0.005	0.713	0.713

salience_network to salience_network	-0.025	0.011	0.025	0.042	0.013	0.001	0.006	0.013	0.645	-0.001	0.071	-0.003	0.000	0.005	0.705	0.705
retrosplenial_temporal_network to ventral_attention_network	0.038	0.010	0.000	0.029	0.014	0.045	0.004	0.013	0.768	0.001	0.098	0.000	0.003	0.005	0.704	0.704
cingulo_opercular_network to dorsal_attention_network	0.022	0.011	0.038	-0.039	0.014	0.004	0.006	0.013	0.657	-0.001	0.108	-0.002	0.000	0.005	0.707	0.707
default_network to sensorimotor_hand_network	-0.031	0.011	0.004	0.025	0.014	0.068	0.006	0.013	0.667	-0.001	0.134	-0.002	0.000	0.005	0.711	0.711
default_network to visual_network	0.060	0.011	0.000	0.022	0.014	0.117	0.004	0.013	0.785	0.001	0.138	0.000	0.003	0.005	0.709	0.709
dorsal_attention_network to ventral_attention_network	0.029	0.010	0.004	0.026	0.014	0.069	0.004	0.013	0.748	0.001	0.142	0.000	0.002	0.005	0.703	0.703
fronto_parietal_network to visual_network	0.026	0.011	0.020	0.023	0.013	0.084	0.004	0.013	0.746	0.001	0.194	0.000	0.002	0.005	0.710	0.710
default_network to ventral_attention_network	-0.038	0.010	0.000	-0.022	0.015	0.156	0.004	0.013	0.755	0.001	0.195	0.000	0.002	0.005	0.707	0.707
fronto_parietal_network to sensorimotor_hand_network	-0.035	0.010	0.001	0.020	0.014	0.176	0.006	0.013	0.666	-0.001	0.225	-0.002	0.000	0.005	0.706	0.706
cingulo_parietal_network to retrosplenial_temporal_network	0.033	0.010	0.001	0.020	0.015	0.180	0.004	0.013	0.743	0.001	0.232	0.000	0.002	0.005	0.706	0.706
dorsal_attention_network to salience_network	0.057	0.011	0.000	-0.017	0.014	0.220	0.006	0.013	0.655	-0.001	0.239	-0.003	0.001	0.005	0.708	0.708
salience_network to ventral_attention_network	-0.048	0.011	0.000	0.017	0.014	0.204	0.006	0.013	0.661	-0.001	0.243	-0.002	0.000	0.005	0.708	0.708
default_network to salience_network	-0.029	0.011	0.009	0.018	0.013	0.171	0.005	0.013	0.679	-0.001	0.265	-0.002	0.000	0.005	0.708	0.708
auditory_network to visual_network	0.066	0.010	0.000	0.016	0.014	0.259	0.004	0.013	0.772	0.001	0.267	-0.001	0.003	0.005	0.708	0.708
retrosplenial_temporal_network to visual_network	-0.065	0.011	0.000	0.015	0.014	0.269	0.006	0.013	0.649	-0.001	0.280	-0.003	0.001	0.005	0.705	0.705
cingulo_opercular_network to retrosplenial_temporal_network	0.062	0.010	0.000	0.015	0.014	0.273	0.004	0.013	0.765	0.001	0.288	-0.001	0.003	0.005	0.710	0.710
auditory_network to retrosplenial_temporal_network	0.046	0.010	0.000	0.016	0.014	0.268	0.004	0.013	0.747	0.001	0.297	-0.001	0.002	0.005	0.705	0.705
auditory_network to cingulo_opercular_network	-0.021	0.011	0.044	0.018	0.014	0.189	0.005	0.013	0.689	0.000	0.317	-0.002	0.000	0.005	0.711	0.711
cingulo_parietal_network to cingulo_opercular_network	-0.025	0.011	0.020	-0.015	0.013	0.257	0.004	0.013	0.730	0.000	0.330	0.000	0.001	0.005	0.709	0.709
retrosplenial_temporal_network to salience_network	0.053	0.010	0.000	0.013	0.014	0.351	0.004	0.013	0.749	0.001	0.365	-0.001	0.002	0.005	0.709	0.709
sensorimotor_hand_network to ventral_attention_network	-0.026	0.012	0.028	0.014	0.013	0.275	0.005	0.013	0.688	0.000	0.378	-0.002	0.000	0.005	0.710	0.710
auditory_network to dorsal_attention_network	0.038	0.012	0.001	0.011	0.012	0.356	0.004	0.013	0.736	0.000	0.397	0.000	0.002	0.005	0.711	0.711
visual_network to ventral_attention_network	0.075	0.011	0.000	0.011	0.014	0.410	0.004	0.013	0.755	0.001	0.416	-0.001	0.003	0.005	0.706	0.706
dorsal_attention_network to fronto_parietal_network	0.032	0.011	0.005	0.011	0.013	0.399	0.005	0.013	0.727	0.000	0.448	0.000	0.001	0.005	0.707	0.707
auditory_network to sensorimotor_mouth_network	0.029	0.010	0.005	-0.012	0.014	0.405	0.005	0.013	0.688	0.000	0.452	-0.002	0.000	0.005	0.707	0.707
fronto_parietal_network to retrosplenial_temporal_network	0.037	0.011	0.001	0.011	0.014	0.418	0.004	0.013	0.732	0.000	0.456	0.000	0.002	0.005	0.709	0.709
salience_network to visual_network	0.040	0.012	0.001	-0.009	0.012	0.430	0.005	0.013	0.686	0.000	0.470	-0.002	0.000	0.005	0.708	0.708
salience_network to sensorimotor_hand_network	-0.029	0.011	0.007	0.011	0.014	0.430	0.005	0.013	0.692	0.000	0.472	-0.001	0.000	0.005	0.709	0.709
cingulo_parietal_network to visual_network	0.046	0.011	0.000	0.009	0.013	0.495	0.004	0.013	0.736	0.000	0.513	-0.001	0.002	0.005	0.712	0.712
sensorimotor_hand_network to visual_network	0.066	0.010	0.000	-0.009	0.015	0.526	0.005	0.013	0.674	-0.001	0.531	-0.003	0.001	0.005	0.709	0.709
sensorimotor_hand_network to sensorimotor_hand_network	0.048	0.010	0.000	0.010	0.015	0.533	0.004	0.013	0.739	0.000	0.541	-0.001	0.002	0.005	0.712	0.712

visual_network to visual_network	-0.104	0.010	0.000	-0.009	0.016	0.571	0.004	0.013	0.763	0.001	0.574	-0.002	0.004	0.005	0.708	0.708
dorsal_attention_network to retrosplenial_temporal_network	-0.034	0.010	0.001	0.004	0.014	0.779	0.005	0.013	0.701	0.000	0.787	-0.001	0.001	0.005	0.708	0.708
cingulo_opercular_network to sensorimotor_hand_network	-0.032	0.010	0.002	0.001	0.014	0.922	0.005	0.013	0.706	0.000	0.925	-0.001	0.001	0.005	0.709	0.709
cingulo_opercular_network to sensorimotor_mouth_network	-0.024	0.011	0.032	-0.001	0.013	0.929	0.005	0.013	0.704	0.000	0.936	-0.001	0.001	0.005	0.702	0.702
retrosplenial_temporal_network to sensorimotor_hand_network	0.049	0.011	0.000	0.000	0.013	0.989	0.005	0.013	0.709	0.000	0.989	-0.001	0.001	0.005	0.709	0.709

Table S11: Main effects of INR and education for brain structure

Variable	Gini			INR			Education		
	B (SE)	t	P	B (SE)	t	P	B (SE)	t	P
M_smri_thick_cdk_bankssts	0.053 (0.012)	4.357	1.33E-05	0.06 (0.013)	4.563	5.12E-06	0.057 (0.013)	4.263	2.04E-05
M_smri_thick_cdk_cdacate	-0.064 (0.012)	-5.253	1.54E-07	0 (0.013)	0.014	9.89E-01	-0.034 (0.014)	-2.520	1.18E-02
M_smri_thick_cdk_cdmdfr	-0.046 (0.012)	-3.799	1.46E-04	0.032 (0.013)	2.403	1.63E-02	0.012 (0.014)	0.880	3.79E-01
M_smri_thick_cdk_cuneus	-0.132 (0.012)	-11.094	2.12E-28	0.107 (0.013)	8.300	1.20E-16	0.061 (0.013)	4.624	3.82E-06
M_smri_thick_cdk_ehinal	-0.075 (0.012)	-6.284	3.47E-10	0.042 (0.013)	3.255	1.14E-03	0.004 (0.013)	0.312	7.55E-01
M_smri_thick_cdk_fusiform	-0.051 (0.012)	-4.197	2.73E-05	0.07 (0.013)	5.316	1.09E-07	0.072 (0.013)	5.343	9.38E-08
M_smri_thick_cdk_ifpl	-0.038 (0.012)	-3.276	1.06E-03	0.048 (0.013)	3.742	1.84E-04	0.053 (0.013)	4.086	4.44E-05
M_smri_thick_cdk_iftm	-0.017 (0.012)	-1.437	1.51E-01	0.071 (0.013)	5.420	6.12E-08	0.068 (0.013)	5.074	3.97E-07
M_smri_thick_cdk_ihcate	-0.067 (0.012)	-5.436	5.61E-08	0.012 (0.013)	0.858	3.91E-01	0.038 (0.014)	2.747	6.03E-03
M_smri_thick_cdk_locc	-0.108 (0.011)	-10.087	8.68E-24	0.114 (0.012)	9.744	2.57E-22	0.044 (0.012)	3.685	2.30E-04
M_smri_thick_cdk_lobfr	-0.144 (0.012)	-11.975	8.96E-33	0.051 (0.013)	3.898	9.77E-05	0.032 (0.013)	2.359	1.83E-02
M_smri_thick_cdk_lingual	-0.109 (0.012)	-9.244	2.96E-20	0.131 (0.013)	10.203	2.66E-24	0.051 (0.013)	3.873	1.08E-04
M_smri_thick_cdk_mobfr	-0.121 (0.012)	-10.228	2.09E-24	0 (0.013)	0.023	9.82E-01	0.009 (0.013)	0.674	5.01E-01
M_smri_thick_cdk_mdtm	0.014 (0.012)	1.168	2.43E-01	0.072 (0.013)	5.658	1.59E-08	0.059 (0.013)	4.542	5.66E-06
M_smri_thick_cdk_parahpal	-0.036 (0.012)	-3.010	2.62E-03	0.103 (0.013)	7.860	4.32E-15	0.053 (0.013)	3.919	8.95E-05

M_smri_thick_cdk_paracn	-0.031 (0.012)	-2.612	9.02E-03	0.079 (0.013)	6.000	2.05E-09	0.034 (0.013)	2.550	1.08E-02
M_smri_thick_cdk_parsopc	-0.012 (0.012)	-0.989	3.23E-01	-0.001 (0.013)	-0.058	9.54E-01	0.02 (0.013)	1.525	1.27E-01
M_smri_thick_cdk_parsobis	-0.034 (0.012)	-2.831	4.65E-03	0.008 (0.013)	0.608	5.43E-01	0.008 (0.013)	0.610	5.42E-01
M_smri_thick_cdk_parstgris	-0.016 (0.012)	-1.342	1.80E-01	0.011 (0.013)	0.867	3.86E-01	0.012 (0.014)	0.898	3.69E-01
M_smri_thick_cdk_pericc	-0.122 (0.012)	-10.296	1.04E-24	0.076 (0.013)	5.912	3.51E-09	0.044 (0.013)	3.320	9.04E-04
M_smri_thick_cdk_postcn	0.002 (0.012)	0.171	8.64E-01	0.101 (0.013)	7.897	3.22E-15	0.047 (0.013)	3.556	3.79E-04
M_smri_thick_cdk_ptcate	-0.011 (0.012)	-0.886	3.76E-01	0.028 (0.013)	2.114	3.46E-02	0.001 (0.014)	0.085	9.33E-01
M_smri_thick_cdk_precn	-0.025 (0.012)	-2.120	3.41E-02	0.053 (0.013)	4.074	4.67E-05	0.051 (0.013)	3.831	1.29E-04
M_smri_thick_cdk_pc	-0.04 (0.012)	-3.296	9.86E-04	0.071 (0.013)	5.359	8.57E-08	0.035 (0.014)	2.558	1.05E-02
M_smri_thick_cdk_rracate	-0.103 (0.012)	-8.756	2.43E-18	-0.018 (0.013)	-1.381	1.67E-01	0.018 (0.013)	1.350	1.77E-01
M_smri_thick_cdk_rrmdfr	-0.094 (0.012)	-7.780	8.17E-15	0.03 (0.013)	2.278	2.27E-02	0.026 (0.013)	1.904	5.70E-02
M_smri_thick_cdk_sufr	-0.063 (0.012)	-5.174	2.35E-07	0.014 (0.013)	1.077	2.81E-01	0.016 (0.014)	1.196	2.32E-01
M_smri_thick_cdk_supl	-0.044 (0.012)	-3.648	2.66E-04	0.05 (0.013)	3.803	1.44E-04	0.034 (0.013)	2.509	1.21E-02
M_smri_thick_cdk_sutm	0.009 (0.012)	0.723	4.70E-01	0.057 (0.013)	4.416	1.02E-05	0.063 (0.013)	4.748	2.09E-06
M_smri_thick_cdk_sm	0.029 (0.011)	2.545	1.09E-02	0.054 (0.012)	4.350	1.38E-05	0.045 (0.013)	3.549	3.90E-04
M_smri_thick_cdk_frpole	-0.022 (0.012)	-1.856	6.35E-02	-0.006 (0.013)	-0.469	6.39E-01	0.012 (0.013)	0.929	3.53E-01
M_smri_thick_cdk_tmpole	-0.043 (0.012)	-3.580	3.45E-04	0.036 (0.013)	2.784	5.38E-03	0.061 (0.013)	4.527	6.07E-06
M_smri_thick_cdk_trvtm	-0.038 (0.012)	-3.147	1.66E-03	0.08 (0.013)	6.097	1.13E-09	0.046 (0.013)	3.458	5.47E-04
M_smri_thick_cdk_insula	-0.146 (0.012)	-12.256	3.10E-34	0.038 (0.013)	2.958	3.10E-03	0.03 (0.013)	2.280	2.26E-02
M_smri_area_cdk_bankssts	0.017 (0.011)	1.524	1.27E-01	0.054 (0.012)	4.326	1.54E-05	0.097 (0.013)	7.591	3.50E-14
M_smri_area_cdk_cdacate	-0.031 (0.012)	-2.593	9.52E-03	0.086 (0.013)	6.632	3.52E-11	0.071 (0.013)	5.301	1.18E-07
M_smri_area_cdk_cdmdfr	-0.058 (0.012)	-5.033	4.94E-07	0.1 (0.013)	7.927	2.53E-15	0.097 (0.013)	7.535	5.39E-14
M_smri_area_cdk_cuneus	-0.043 (0.012)	-3.609	3.09E-04	0.051 (0.013)	3.929	8.59E-05	0.059 (0.013)	4.463	8.18E-06
M_smri_area_cdk_ehinal	-0.013 (0.012)	-1.126	2.60E-01	0.096 (0.013)	7.494	7.34E-14	0.067 (0.013)	5.096	3.55E-07
M_smri_area_cdk_fusiform	-0.014 (0.011)	-1.294	1.96E-01	0.124 (0.012)	10.480	1.52E-25	0.1 (0.012)	8.196	2.86E-16
M_smri_area_cdk_ifpl	-0.001 (0.011)	-0.085	9.33E-01	0.084 (0.012)	6.784	1.24E-11	0.07 (0.013)	5.515	3.59E-08
M_smri_area_cdk_iftm	-0.02 (0.011)	-1.826	6.79E-02	0.122 (0.012)	10.304	9.49E-25	0.105 (0.012)	8.570	1.22E-17
M_smri_area_cdk_ihcate	-0.036 (0.012)	-3.144	1.67E-03	0.06 (0.013)	4.769	1.88E-06	0.055 (0.013)	4.294	1.78E-05
M_smri_area_cdk_locc	-0.037 (0.011)	-3.353	8.04E-04	0.106 (0.012)	8.874	8.53E-19	0.074 (0.012)	6.016	1.86E-09
M_smri_area_cdk_lobfr	-0.046 (0.011)	-4.073	4.68E-05	0.107 (0.012)	8.606	8.91E-18	0.074 (0.013)	5.784	7.53E-09
M_smri_area_cdk_lingual	-0.021 (0.012)	-1.767	7.72E-02	0.054 (0.013)	4.122	3.79E-05	0.079 (0.013)	5.874	4.41E-09
M_smri_area_cdk_mobfr	-0.032 (0.011)	-2.874	4.06E-03	0.102 (0.012)	8.360	7.24E-17	0.073 (0.012)	5.836	5.53E-09

M_smri_area_cdk_mdtm	-0.008 (0.011)	-0.703	4.82E-01	0.097 (0.012)	8.153	4.05E-16	0.111 (0.012)	9.091	1.20E-19
M_smri_area_cdk_parahpal	0.028 (0.012)	2.377	1.75E-02	0.037 (0.013)	2.885	3.92E-03	0.097 (0.013)	7.284	3.53E-13
M_smri_area_cdk_paracn	-0.016 (0.012)	-1.397	1.63E-01	0.077 (0.013)	6.027	1.74E-09	0.048 (0.013)	3.681	2.33E-04
M_smri_area_cdk_parsopc	-0.059 (0.012)	-5.061	4.27E-07	0.104 (0.013)	8.215	2.45E-16	0.057 (0.013)	4.375	1.23E-05
M_smri_area_cdk_parsobis	-0.069 (0.011)	-6.191	6.25E-10	0.102 (0.012)	8.460	3.12E-17	0.09 (0.012)	7.281	3.62E-13
M_smri_area_cdk_parstgris	-0.041 (0.011)	-3.580	3.45E-04	0.046 (0.012)	3.709	2.10E-04	0.052 (0.013)	4.052	5.12E-05
M_smri_area_cdk_pericc	-0.032 (0.012)	-2.582	9.84E-03	0.01 (0.013)	0.733	4.63E-01	0.066 (0.014)	4.767	1.90E-06
M_smri_area_cdk_postcn	-0.041 (0.011)	-3.683	2.32E-04	0.098 (0.012)	8.181	3.22E-16	0.085 (0.012)	6.938	4.26E-12
M_smri_area_cdk_ptcate	-0.015 (0.012)	-1.317	1.88E-01	0.083 (0.013)	6.515	7.70E-11	0.059 (0.013)	4.517	6.36E-06
M_smri_area_cdk_precn	-0.045 (0.011)	-4.143	3.47E-05	0.116 (0.012)	9.802	1.45E-22	0.091 (0.012)	7.498	7.16E-14
M_smri_area_cdk_pc	-0.048 (0.011)	-4.212	2.55E-05	0.125 (0.012)	10.040	1.37E-23	0.054 (0.013)	4.214	2.54E-05
M_smri_area_cdk_rracate	-0.039 (0.012)	-3.338	8.48E-04	0.091 (0.013)	7.199	6.60E-13	0.079 (0.013)	6.035	1.66E-09
M_smri_area_cdk_rrmdfr	-0.06 (0.011)	-5.488	4.19E-08	0.08 (0.012)	6.638	3.38E-11	0.108 (0.012)	8.797	1.69E-18
M_smri_area_cdk_sufr	-0.044 (0.011)	-3.939	8.24E-05	0.101 (0.012)	8.294	1.26E-16	0.089 (0.013)	7.083	1.52E-12
M_smri_area_cdk_supl	-0.047 (0.012)	-4.097	4.22E-05	0.116 (0.013)	9.216	3.85E-20	0.044 (0.013)	3.415	6.41E-04
M_smri_area_cdk_sutm	-0.021 (0.011)	-1.843	6.54E-02	0.069 (0.012)	5.690	1.31E-08	0.107 (0.012)	8.555	1.39E-17
M_smri_area_cdk_sm	-0.022 (0.011)	-2.007	4.48E-02	0.074 (0.012)	6.031	1.70E-09	0.073 (0.013)	5.824	5.97E-09
M_smri_area_cdk_frpole	-0.072 (0.011)	-6.399	1.65E-10	0.102 (0.012)	8.386	5.86E-17	0.104 (0.012)	8.315	1.06E-16
M_smri_area_cdk_tmpole	-0.025 (0.011)	-2.200	2.79E-02	0.062 (0.012)	4.986	6.28E-07	0.072 (0.013)	5.646	1.69E-08
M_smri_area_cdk_trvtm	-0.022 (0.012)	-1.821	6.87E-02	0.052 (0.013)	4.027	5.69E-05	0.063 (0.013)	4.792	1.68E-06
M_smri_area_cdk_insula	-0.038 (0.011)	-3.358	7.88E-04	0.062 (0.012)	5.088	3.69E-07	0.08 (0.013)	6.365	2.06E-10
M_smri_vol_scs_amygdala	-0.024 (0.011)	-2.185	2.89E-02	0.096 (0.012)	7.990	1.52E-15	0.082 (0.012)	6.703	2.18E-11
M_smri_vol_scs_caudate	-0.053 (0.012)	-4.443	9.00E-06	0.073 (0.013)	5.606	2.13E-08	0.119 (0.013)	8.899	6.83E-19
M_smri_vol_scs_putamen	-0.007 (0.012)	-0.578	5.63E-01	0.068 (0.013)	5.448	5.24E-08	0.081 (0.013)	6.285	3.44E-10
M_smri_vol_scs_pallidum	-0.004 (0.011)	-0.338	7.35E-01	0.078 (0.012)	6.333	2.53E-10	0.061 (0.013)	4.790	1.69E-06
M_smri_vol_scs_hpus	-0.019 (0.011)	-1.631	1.03E-01	0.115 (0.012)	9.297	1.80E-20	0.106 (0.013)	8.310	1.10E-16
M_smri_vol_scs_aa	-0.019 (0.012)	-1.602	1.09E-01	0.061 (0.013)	4.854	1.23E-06	0.062 (0.013)	4.777	1.81E-06
M_smri_vol_scs_tp	-0.025 (0.011)	-2.223	2.62E-02	0.089 (0.012)	7.330	2.51E-13	0.074 (0.013)	5.915	3.44E-09

Table S12: Main effects of INR and education for brain connectivity

Variable	Gini			INR			Education		
	B (SE)	t	P	B (SE)	t	P	B (SE)	t	P
AN to AN	0.003 (0.013)	0.223	8.23E-01	-0.009 (0.014)	-0.645	5.19E-01	-0.034 (0.014)	-2.405	1.62E-02
AN to CON	-0.031 (0.013)	-2.385	1.71E-02	0.04 (0.014)	2.831	4.65E-03	0.049 (0.014)	3.444	5.76E-04
CON to CON	-0.115 (0.013)	-9.158	6.78E-20	0.06 (0.014)	4.433	9.42E-06	0.047 (0.014)	3.388	7.08E-04
CPN to CON	-0.034 (0.013)	-2.610	9.08E-03	0.024 (0.014)	1.726	8.44E-02	0.055 (0.014)	3.847	1.21E-04
AN to CPN	-0.019 (0.013)	-1.455	1.46E-01	0.026 (0.014)	1.846	6.49E-02	0.066 (0.014)	4.658	3.25E-06
CPN to CPN	0.019 (0.013)	1.417	1.57E-01	0.058 (0.014)	4.064	4.89E-05	-0.02 (0.015)	-1.336	1.82E-01
AN to DMN	-0.026 (0.013)	-1.985	4.72E-02	0.052 (0.014)	3.726	1.96E-04	0.053 (0.014)	3.692	2.24E-04
CON to DMN	0.056 (0.013)	4.382	1.19E-05	-0.018 (0.014)	-1.292	1.96E-01	0.022 (0.014)	1.565	1.18E-01
CPN to DMN	-0.011 (0.013)	-0.817	4.14E-01	-0.022 (0.014)	-1.564	1.18E-01	-0.009 (0.015)	-0.648	5.17E-01
DMN to DMN	-0.063 (0.012)	-5.033	4.94E-07	0.041 (0.013)	3.023	2.51E-03	0.005 (0.014)	0.329	7.42E-01
DAN to DMN	0.078 (0.012)	6.246	4.45E-10	-0.045 (0.013)	-3.383	7.20E-04	-0.019 (0.014)	-1.367	1.72E-01
AN to DAN	0.039 (0.013)	3.010	2.62E-03	-0.055 (0.014)	-3.919	8.98E-05	0.006 (0.014)	0.419	6.76E-01
CON to DAN	0.034 (0.013)	2.532	1.14E-02	-0.005 (0.014)	-0.324	7.46E-01	-0.009 (0.015)	-0.603	5.46E-01
CPN to DAN	0.023 (0.013)	1.791	7.34E-02	0.051 (0.014)	3.608	3.10E-04	0.033 (0.014)	2.254	2.42E-02
DAN to DAN	-0.011 (0.013)	-0.868	3.85E-01	0.05 (0.014)	3.533	4.13E-04	0.008 (0.014)	0.523	6.01E-01
AN to FPN	-0.009 (0.013)	-0.658	5.10E-01	0.057 (0.014)	4.088	4.40E-05	0.094 (0.014)	6.578	5.09E-11
CON to FPN	0.034 (0.013)	2.571	1.02E-02	-0.021 (0.014)	-1.449	1.47E-01	0.029 (0.015)	1.981	4.77E-02
CPN to FPN	0 (0.013)	0.022	9.82E-01	-0.056 (0.014)	-3.907	9.45E-05	-0.034 (0.015)	-2.316	2.06E-02
DMN to FPN	0.017 (0.013)	1.266	2.06E-01	0 (0.014)	-0.002	9.98E-01	-0.011 (0.015)	-0.725	4.68E-01
DAN to FPN	0.035 (0.013)	2.686	7.26E-03	0.001 (0.014)	0.089	9.29E-01	0.013 (0.014)	0.946	3.44E-01
FPN to FPN	0.041 (0.013)	3.163	1.57E-03	0.008 (0.014)	0.567	5.71E-01	-0.031 (0.014)	-2.198	2.80E-02
AN to RTN	0.066 (0.013)	5.156	2.60E-07	-0.014 (0.014)	-1.008	3.13E-01	-0.018 (0.014)	-1.301	1.93E-01
CON to RTN	0.087 (0.013)	6.765	1.44E-11	-0.026 (0.014)	-1.908	5.64E-02	-0.02 (0.014)	-1.432	1.52E-01
CPN to RTN	0.049 (0.013)	3.667	2.47E-04	0.013 (0.014)	0.866	3.86E-01	0.032 (0.015)	2.135	3.28E-02
DMN to RTN	0.014 (0.013)	1.082	2.79E-01	-0.001 (0.014)	-0.075	9.40E-01	-0.011 (0.015)	-0.719	4.72E-01
DAN to RTN	-0.049 (0.013)	-3.719	2.01E-04	0.04 (0.014)	2.826	4.72E-03	0.012 (0.015)	0.846	3.98E-01
FPN to RTN	0.059 (0.013)	4.482	7.50E-06	-0.04 (0.014)	-2.837	4.56E-03	0.021 (0.015)	1.466	1.43E-01

RTN to RTN	-0.076 (0.013)	-5.986	2.26E-09	0.052 (0.014)	3.752	1.77E-04	0.005 (0.014)	0.371	7.10E-01
AN to SN	-0.014 (0.013)	-1.042	2.97E-01	0.063 (0.014)	4.516	6.39E-06	0.074 (0.014)	5.193	2.13E-07
CON to SN	-0.007 (0.013)	-0.547	5.84E-01	0.015 (0.014)	1.028	3.04E-01	0.017 (0.015)	1.190	2.34E-01
CPN to SN	0.019 (0.013)	1.449	1.47E-01	-0.044 (0.014)	-3.082	2.07E-03	-0.007 (0.015)	-0.476	6.34E-01
DMN to SN	-0.042 (0.013)	-3.168	1.54E-03	0.019 (0.014)	1.302	1.93E-01	0.021 (0.015)	1.424	1.54E-01
DAN to SN	0.079 (0.013)	6.020	1.83E-09	0 (0.014)	0.029	9.77E-01	0.008 (0.015)	0.563	5.73E-01
FPN to SN	0.026 (0.013)	1.979	4.78E-02	0.004 (0.014)	0.279	7.80E-01	0 (0.014)	0.007	9.95E-01
RTN to SN	0.08 (0.013)	6.153	8.03E-10	-0.019 (0.014)	-1.368	1.71E-01	-0.008 (0.014)	-0.554	5.80E-01
SN to SN	-0.033 (0.013)	-2.531	1.14E-02	0.007 (0.014)	0.516	6.06E-01	0.006 (0.014)	0.414	6.79E-01
AN to SMN (H)	0.019 (0.013)	1.521	1.28E-01	-0.083 (0.014)	-6.011	1.93E-09	-0.104 (0.014)	-7.389	1.65E-13
CON to SMN (H)	-0.045 (0.013)	-3.406	6.63E-04	0.007 (0.014)	0.527	5.98E-01	0.021 (0.014)	1.461	1.44E-01
CPN to SMN (H)	-0.024 (0.013)	-1.843	6.54E-02	0.014 (0.014)	1.021	3.07E-01	0.097 (0.014)	6.776	1.34E-11
DMN to SMN (H)	-0.039 (0.013)	-3.020	2.54E-03	0.024 (0.014)	1.741	8.18E-02	0.04 (0.014)	2.762	5.76E-03
DAN to SMN (H)	0.01 (0.013)	0.757	4.49E-01	-0.015 (0.014)	-1.081	2.80E-01	0.019 (0.014)	1.322	1.86E-01
FPN to SMN (H)	-0.051 (0.013)	-3.902	9.64E-05	0.046 (0.014)	3.246	1.18E-03	0.092 (0.014)	6.437	1.30E-10
RTN to SMN (H)	0.058 (0.013)	4.439	9.19E-06	-0.014 (0.014)	-0.983	3.26E-01	-0.011 (0.014)	-0.795	4.27E-01
SN to SMN (H)	-0.034 (0.013)	-2.615	8.94E-03	0.049 (0.014)	3.500	4.68E-04	0.077 (0.014)	5.397	7.00E-08
SMN (H) to SMN (H)	0.062 (0.013)	4.793	1.68E-06	-0.092 (0.014)	-6.635	3.48E-11	-0.094 (0.014)	-6.641	3.35E-11
AN to SMN (M)	0.028 (0.013)	2.201	2.78E-02	-0.05 (0.014)	-3.613	3.05E-04	-0.08 (0.014)	-5.649	1.68E-08
CON to SMN (M)	-0.035 (0.013)	-2.641	8.28E-03	0.008 (0.014)	0.580	5.62E-01	0.011 (0.014)	0.737	4.61E-01
CPN to SMN (M)	0.013 (0.013)	0.966	3.34E-01	0.027 (0.014)	1.957	5.04E-02	0.062 (0.014)	4.338	1.46E-05
DMN to SMN (M)	0.021 (0.013)	1.609	1.08E-01	0.02 (0.014)	1.392	1.64E-01	0.05 (0.014)	3.505	4.59E-04
DAN to SMN (M)	0.013 (0.013)	1.017	3.09E-01	-0.004 (0.014)	-0.313	7.54E-01	-0.009 (0.014)	-0.665	5.06E-01
FPN to SMN (M)	-0.004 (0.013)	-0.282	7.78E-01	0.057 (0.014)	4.075	4.65E-05	0.056 (0.014)	3.910	9.31E-05
RTN to SMN (M)	0.027 (0.013)	2.051	4.03E-02	-0.016 (0.014)	-1.132	2.58E-01	-0.021 (0.014)	-1.423	1.55E-01
SN to SMN (M)	-0.02 (0.013)	-1.546	1.22E-01	0.04 (0.014)	2.881	3.98E-03	0.061 (0.014)	4.223	2.44E-05
SMN (H) to SMN (M)	0.065 (0.013)	5.061	4.28E-07	-0.091 (0.014)	-6.609	4.16E-11	-0.123 (0.014)	-8.759	2.45E-18
SMN (M) to SMN (M)	-0.024 (0.013)	-1.854	6.38E-02	-0.034 (0.014)	-2.428	1.52E-02	0 (0.014)	0.020	9.84E-01
AN to VAN	-0.001 (0.013)	-0.043	9.66E-01	0.028 (0.014)	1.978	4.79E-02	0.003 (0.014)	0.207	8.36E-01
CON to VAN	-0.006 (0.013)	-0.456	6.49E-01	0.027 (0.014)	1.944	5.19E-02	0.016 (0.014)	1.122	2.62E-01
CPN to VAN	-0.019 (0.013)	-1.439	1.50E-01	-0.01 (0.014)	-0.678	4.98E-01	0.057 (0.015)	3.886	1.03E-04
DMN to VAN	-0.05 (0.013)	-3.865	1.12E-04	0.055 (0.014)	3.920	8.94E-05	0.051 (0.014)	3.532	4.16E-04

DAN to VAN	0.032 (0.013)	2.452	1.42E-02	-0.069 (0.014)	-4.966	7.01E-07	-0.015 (0.014)	-1.075	2.82E-01
FPN to VAN	-0.013 (0.013)	-1.014	3.10E-01	0.031 (0.014)	2.205	2.75E-02	0.014 (0.015)	0.978	3.28E-01
RTN to VAN	0.062 (0.013)	4.797	1.64E-06	-0.035 (0.014)	-2.505	1.23E-02	0.007 (0.014)	0.523	6.01E-01
SN to VAN	-0.066 (0.013)	-5.093	3.61E-07	0.083 (0.014)	5.994	2.14E-09	0.01 (0.014)	0.681	4.96E-01
SMN (H) to VAN	-0.037 (0.013)	-2.813	4.92E-03	-0.013 (0.014)	-0.940	3.47E-01	-0.03 (0.014)	-2.081	3.75E-02
SMN (M) to VAN	0.014 (0.013)	1.103	2.70E-01	0.011 (0.014)	0.790	4.30E-01	-0.018 (0.014)	-1.262	2.07E-01
VAN to VAN	-0.026 (0.013)	-2.003	4.52E-02	0.04 (0.014)	2.852	4.35E-03	0.026 (0.014)	1.832	6.71E-02
VN to VAN	0.096 (0.013)	7.580	3.91E-14	-0.046 (0.014)	-3.388	7.07E-04	-0.039 (0.014)	-2.777	5.49E-03
AN to VN	0.092 (0.013)	7.060	1.82E-12	-0.039 (0.014)	-2.778	5.48E-03	-0.076 (0.014)	-5.293	1.24E-07
CON to VN	0.051 (0.013)	3.881	1.05E-04	0.029 (0.014)	2.060	3.95E-02	-0.025 (0.015)	-1.716	8.61E-02
CPN to VN	0.064 (0.013)	4.827	1.42E-06	0.024 (0.014)	1.687	9.17E-02	-0.003 (0.015)	-0.223	8.24E-01
DMN to VN	0.081 (0.013)	6.452	1.18E-10	-0.025 (0.014)	-1.841	6.57E-02	0.003 (0.014)	0.211	8.33E-01
DAN to VN	-0.073 (0.013)	-5.590	2.35E-08	0.058 (0.014)	4.144	3.45E-05	0.03 (0.014)	2.096	3.61E-02
FPN to VN	0.04 (0.013)	3.102	1.93E-03	-0.014 (0.014)	-1.025	3.05E-01	0 (0.014)	0.002	9.99E-01
RTN to VN	-0.08 (0.013)	-6.156	7.86E-10	0.026 (0.014)	1.865	6.22E-02	0.028 (0.014)	1.946	5.17E-02
SN to VN	0.052 (0.013)	4.001	6.36E-05	0.005 (0.014)	0.379	7.05E-01	0.005 (0.014)	0.342	7.33E-01
SMN (H) to VN	0.093 (0.013)	7.188	7.27E-13	-0.033 (0.014)	-2.378	1.74E-02	-0.058 (0.014)	-4.030	5.63E-05
SMN (M) to VN	-0.018 (0.013)	-1.370	1.71E-01	-0.002 (0.014)	-0.176	8.60E-01	-0.036 (0.014)	-2.508	1.22E-02
VN to VN	-0.148 (0.012)	-12.229	4.84E-34	0.048 (0.013)	3.642	2.73E-04	0.026 (0.013)	1.914	5.56E-02

Table S13: Associations between inequality and brain structure in states with only one site

Note that scanner model was not included in these models due to convergence issues.

Variable	B	SE	T	P	PFDR	
M_smri_thick_cdk_bankssts	0.040	0.014	2.854	4.33E-03	8.17E-03	*
M_smri_thick_cdk_cdacate	-0.039	0.014	-2.775	5.54E-03	9.92E-03	*
M_smri_thick_cdk_cdmdfr	-0.014	0.014	-0.957	3.39E-01	3.97E-01	
M_smri_thick_cdk_cuneus	-0.107	0.014	-7.630	2.69E-14	1.83E-13	*
M_smri_thick_cdk_ehinal	-0.061	0.014	-4.318	1.60E-05	4.94E-05	*
M_smri_thick_cdk_fusiform	-0.062	0.014	-4.378	1.22E-05	4.13E-05	*
M_smri_thick_cdk_ifpl	0.007	0.014	0.506	6.13E-01	6.95E-01	
M_smri_thick_cdk_iftm	-0.031	0.014	-2.230	2.58E-02	3.81E-02	*
M_smri_thick_cdk_ihcate	-0.040	0.014	-2.751	5.96E-03	1.01E-02	*
M_smri_thick_cdk_locc	-0.063	0.013	-4.786	1.74E-06	8.47E-06	*
M_smri_thick_cdk_lobfr	-0.130	0.014	-9.227	3.72E-20	6.32E-19	*
M_smri_thick_cdk_lingual	-0.109	0.014	-7.724	1.30E-14	1.10E-13	*
M_smri_thick_cdk_mobfr	-0.159	0.014	-11.324	1.93E-29	6.57E-28	*
M_smri_thick_cdk_mdtm	0.030	0.013	2.242	2.50E-02	3.81E-02	*
M_smri_thick_cdk_parahpal	-0.047	0.014	-3.417	6.36E-04	1.54E-03	*
M_smri_thick_cdk_paracn	-0.029	0.014	-2.027	4.27E-02	5.58E-02	
M_smri_thick_cdk_parsopc	0.031	0.014	2.191	2.85E-02	4.03E-02	*
M_smri_thick_cdk_parsobis	-0.045	0.014	-3.241	1.20E-03	2.71E-03	*
M_smri_thick_cdk_parstgris	-0.002	0.014	-0.170	8.65E-01	9.19E-01	
M_smri_thick_cdk_pericc	-0.083	0.014	-5.915	3.50E-09	1.98E-08	*
M_smri_thick_cdk_postcn	0.027	0.014	1.899	5.76E-02	7.25E-02	
M_smri_thick_cdk_ptcate	0.000	0.014	0.005	9.96E-01	9.96E-01	
M_smri_thick_cdk_precn	-0.005	0.014	-0.383	7.02E-01	7.69E-01	
M_smri_thick_cdk_pc	-0.025	0.014	-1.788	7.39E-02	8.97E-02	
M_smri_thick_cdk_rracate	-0.054	0.014	-3.880	1.06E-04	2.76E-04	*
M_smri_thick_cdk_rrmdfr	-0.064	0.014	-4.526	6.11E-06	2.31E-05	*
M_smri_thick_cdk_sufr	-0.042	0.014	-2.982	2.88E-03	6.12E-03	*
M_smri_thick_cdk_supl	0.002	0.014	0.108	9.14E-01	9.41E-01	
M_smri_thick_cdk_sutm	0.029	0.014	2.102	3.56E-02	4.84E-02	*
M_smri_thick_cdk_sm	0.056	0.014	4.077	4.62E-05	1.31E-04	*
M_smri_thick_cdk_frpole	-0.041	0.014	-2.926	3.44E-03	6.89E-03	*
M_smri_thick_cdk_tmpole	-0.037	0.014	-2.632	8.50E-03	1.38E-02	*
M_smri_thick_cdk_trvtm	-0.065	0.014	-4.636	3.63E-06	1.54E-05	*
M_smri_thick_cdk_insula	-0.121	0.014	-8.501	2.32E-17	2.63E-16	*
M_smri_area_cdk_bankssts	0.044	0.013	3.271	1.08E-03	3.67E-03	*
M_smri_area_cdk_cdacate	0.000	0.014	0.014	9.88E-01	9.88E-01	
M_smri_area_cdk_cdmdfr	-0.034	0.014	-2.478	1.32E-02	2.65E-02	*
M_smri_area_cdk_cuneus	-0.049	0.014	-3.590	3.33E-04	1.42E-03	*
M_smri_area_cdk_ehinal	0.013	0.014	0.920	3.58E-01	4.86E-01	
M_smri_area_cdk_fusiform	0.008	0.013	0.629	5.30E-01	6.28E-01	
M_smri_area_cdk_ifpl	0.002	0.013	0.182	8.56E-01	9.09E-01	
M_smri_area_cdk_iftm	-0.035	0.013	-2.688	7.20E-03	1.65E-02	*

M_smri_area_cdk_ihcate	-0.037	0.014	-2.684	7.29E-03	1.65E-02	*
M_smri_area_cdk_locc	-0.041	0.013	-3.152	1.63E-03	4.73E-03	*
M_smri_area_cdk_lobfr	-0.067	0.013	-4.985	6.35E-07	7.19E-06	*
M_smri_area_cdk_lingual	-0.009	0.014	-0.615	5.39E-01	6.28E-01	
M_smri_area_cdk_mobfr	-0.068	0.013	-5.149	2.70E-07	4.59E-06	*
M_smri_area_cdk_mdtm	-0.012	0.013	-0.943	3.46E-01	4.86E-01	
M_smri_area_cdk_parahpal	0.067	0.014	4.867	1.16E-06	9.88E-06	*
M_smri_area_cdk_paracn	0.008	0.014	0.591	5.55E-01	6.28E-01	
M_smri_area_cdk_parsopc	-0.052	0.014	-3.813	1.38E-04	9.42E-04	*
M_smri_area_cdk_parsobis	-0.048	0.013	-3.695	2.22E-04	1.08E-03	*
M_smri_area_cdk_parstgris	-0.031	0.013	-2.330	1.99E-02	3.75E-02	*
M_smri_area_cdk_pericc	-0.026	0.014	-1.846	6.50E-02	1.10E-01	
M_smri_area_cdk_postcn	-0.044	0.013	-3.363	7.75E-04	2.93E-03	*
M_smri_area_cdk_ptcate	-0.009	0.014	-0.686	4.93E-01	6.21E-01	
M_smri_area_cdk_precn	-0.038	0.013	-2.876	4.04E-03	1.06E-02	*
M_smri_area_cdk_pc	-0.042	0.013	-3.145	1.67E-03	4.73E-03	*
M_smri_area_cdk_rracate	-0.030	0.014	-2.239	2.52E-02	4.51E-02	*
M_smri_area_cdk_rrmdfr	-0.035	0.013	-2.663	7.77E-03	1.65E-02	*
M_smri_area_cdk_sufr	-0.022	0.013	-1.668	9.53E-02	1.54E-01	
M_smri_area_cdk_supl	-0.051	0.014	-3.733	1.91E-04	1.08E-03	*
M_smri_area_cdk_suttm	-0.001	0.013	-0.076	9.40E-01	9.68E-01	
M_smri_area_cdk_sm	-0.016	0.013	-1.180	2.38E-01	3.68E-01	
M_smri_area_cdk_frpole	-0.074	0.013	-5.703	1.23E-08	4.19E-07	*
M_smri_area_cdk_tmpole	-0.012	0.013	-0.893	3.72E-01	4.86E-01	
M_smri_area_cdk_trvtm	0.006	0.014	0.434	6.65E-01	7.29E-01	
M_smri_area_cdk_insula	-0.015	0.013	-1.137	2.55E-01	3.78E-01	

Table S14: Associations between inequality and brain connectivity in states with only one site

Variable	B	SE	T	P	PFDR	
AN to AN	0.013	0.015	0.810	4.18E-01	5.53E-01	
AN to CON	-0.029	0.015	-1.895	5.82E-02	1.20E-01	
CON to CON	-0.085	0.015	-5.690	1.34E-08	9.49E-08	*
CPN to CON	-0.029	0.015	-1.893	5.84E-02	1.20E-01	
AN to CPN	0.024	0.015	1.563	1.18E-01	2.20E-01	
CPN to CPN	0.017	0.015	1.116	2.65E-01	4.13E-01	
AN to DMN	-0.005	0.015	-0.312	7.55E-01	8.54E-01	
CON to DMN	0.015	0.015	1.014	3.11E-01	4.49E-01	
CPN to DMN	0.002	0.016	0.108	9.14E-01	9.38E-01	
DMN to DMN	0.000	0.015	0.033	9.74E-01	9.74E-01	
DAN to DMN	0.013	0.015	0.858	3.91E-01	5.34E-01	
AN to DAN	0.036	0.015	2.383	1.72E-02	4.47E-02	*
CON to DAN	0.070	0.015	4.531	6.00E-06	2.60E-05	*
CPN to DAN	0.016	0.015	1.041	2.98E-01	4.39E-01	
DAN to DAN	-0.007	0.015	-0.439	6.61E-01	7.81E-01	
AN to FPN	0.005	0.015	0.316	7.52E-01	8.54E-01	

CON to FPN	0.022	0.016	1.400	1.62E-01	2.74E-01	
CPN to FPN	-0.011	0.015	-0.718	4.73E-01	6.04E-01	
DMN to FPN	-0.015	0.016	-0.983	3.26E-01	4.62E-01	
DAN to FPN	0.010	0.015	0.636	5.25E-01	6.49E-01	
FPN to FPN	0.038	0.015	2.483	1.31E-02	3.51E-02	*
AN to RTN	0.105	0.015	6.898	5.87E-12	2.29E-10	*
CON to RTN	0.092	0.015	6.100	1.13E-09	1.26E-08	*
CPN to RTN	0.068	0.016	4.362	1.31E-05	5.12E-05	*
DMN to RTN	0.096	0.016	6.106	1.09E-09	1.26E-08	*
DAN to RTN	-0.076	0.016	-4.866	1.17E-06	5.71E-06	*
FPN to RTN	0.078	0.015	5.071	4.09E-07	2.28E-06	*
RTN to RTN	-0.075	0.015	-5.001	5.87E-07	3.05E-06	*
AN to SN	0.003	0.015	0.192	8.48E-01	9.19E-01	
CON to SN	-0.009	0.016	-0.584	5.59E-01	6.71E-01	
CPN to SN	0.016	0.015	1.043	2.97E-01	4.39E-01	
DMN to SN	-0.039	0.016	-2.491	1.28E-02	3.51E-02	*
DAN to SN	0.086	0.015	5.604	2.20E-08	1.43E-07	*
FPN to SN	0.034	0.015	2.240	2.51E-02	5.93E-02	
RTN to SN	0.092	0.015	6.031	1.74E-09	1.69E-08	*
SN to SN	-0.031	0.015	-1.989	4.67E-02	1.01E-01	
AN to SMN (H)	0.004	0.015	0.244	8.07E-01	9.00E-01	
CON to SMN (H)	-0.041	0.016	-2.640	8.31E-03	2.40E-02	*
CPN to SMN (H)	0.001	0.015	0.060	9.52E-01	9.65E-01	
DMN to SMN (H)	-0.023	0.015	-1.483	1.38E-01	2.51E-01	
DAN to SMN (H)	0.002	0.015	0.159	8.74E-01	9.22E-01	
FPN to SMN (H)	-0.049	0.015	-3.309	9.44E-04	2.94E-03	*
RTN to SMN (H)	0.087	0.015	5.763	8.72E-09	6.80E-08	*
SN to SMN (H)	-0.013	0.015	-0.847	3.97E-01	5.34E-01	
SMN (H) to SMN (H)	0.034	0.015	2.302	2.14E-02	5.37E-02	
AN to SMN (M)	0.026	0.015	1.698	8.95E-02	1.75E-01	
CON to SMN (M)	-0.034	0.015	-2.216	2.67E-02	6.14E-02	
CPN to SMN (M)	0.041	0.015	2.746	6.06E-03	1.82E-02	*
DMN to SMN (M)	0.027	0.015	1.779	7.53E-02	1.51E-01	
DAN to SMN (M)	-0.017	0.015	-1.117	2.64E-01	4.13E-01	
FPN to SMN (M)	-0.011	0.015	-0.719	4.72E-01	6.04E-01	
RTN to SMN (M)	0.035	0.015	2.271	2.32E-02	5.65E-02	
SN to SMN (M)	-0.003	0.015	-0.205	8.38E-01	9.19E-01	
SMN (H) to SMN (M)	0.021	0.015	1.420	1.56E-01	2.70E-01	
SMN (M) to SMN (M)	-0.002	0.015	-0.154	8.77E-01	9.22E-01	
AN to VAN	0.002	0.016	0.143	8.86E-01	9.22E-01	
CON to VAN	-0.019	0.016	-1.193	2.33E-01	3.79E-01	
CPN to VAN	-0.022	0.015	-1.438	1.51E-01	2.67E-01	
DMN to VAN	-0.024	0.015	-1.561	1.19E-01	2.20E-01	
DAN to VAN	0.010	0.015	0.655	5.13E-01	6.45E-01	
FPN to VAN	-0.016	0.015	-1.061	2.89E-01	4.39E-01	
RTN to VAN	0.095	0.015	6.245	4.56E-10	7.12E-09	*
SN to VAN	-0.056	0.015	-3.684	2.32E-04	8.23E-04	*
SMN (H) to VAN	-0.033	0.015	-2.165	3.04E-02	6.78E-02	

SMN (M) to VAN	0.019	0.015	1.248	2.12E-01	3.52E-01	
VAN to VAN	-0.009	0.015	-0.590	5.55E-01	6.71E-01	
VN to VAN	0.096	0.015	6.350	2.33E-10	4.55E-09	*
AN to VN	0.091	0.015	5.965	2.60E-09	2.25E-08	*
CON to VN	0.074	0.016	4.693	2.76E-06	1.27E-05	*
CPN to VN	0.059	0.016	3.769	1.65E-04	6.14E-04	*
DMN to VN	0.050	0.015	3.326	8.86E-04	2.88E-03	*
DAN to VN	-0.067	0.015	-4.389	1.16E-05	4.77E-05	*
FPN to VN	0.013	0.016	0.852	3.94E-01	5.34E-01	
RTN to VN	-0.120	0.015	-7.876	4.06E-15	3.17E-13	*
SN to VN	0.053	0.015	3.465	5.34E-04	1.81E-03	*
SMN (H) to VN	0.082	0.015	5.417	6.32E-08	3.79E-07	*
SMN (M) to VN	0.005	0.015	0.357	7.21E-01	8.39E-01	
VN to VN	-0.099	0.015	-6.705	2.23E-11	5.79E-10	*

Rationale, Results, and Discussion for Race moderation analyses

Rationale and approach

The effects of inequality may not be uniform across populations. Inequality may intersect with racial and ethnic disparities and compound risks for marginalized groups (1). While race is a socially constructed category (2), and racial differences in neurobiology can be explained by disparities in childhood adversity (3), it is possible that the effects of inequality are compounded in minoritized communities, for example due to structural stigma and discrimination (4), systemic disadvantage, and lower perceived social mobility in these groups (5). Further, minorities may also be more severely impacted by inequality as they may be more reliant on public spending which is lower in more unequal societies. Alternatively, it is possible that the effects of inequality may be weaker in minority communities due to stronger social ties and access to extended kin networks (6), which may buffer effects of stressful situations (7). Therefore, it is possible that associations of structural inequality with brain structure and function may differ between racial and ethnic groups. For example, prior research has shown that high family SES is associated with larger hippocampal volumes, but this relationship is significantly stronger among White participants compared to Black participants (8). To account for these intersectional influences, and in line with recent advice to advance work facilitating understanding of upstream causes of health disparities (9), we examined race/ethnicity as a moderating factor in the associations between income inequality, brain structure and function, and mental health. Such an investigation could elucidate pathways by which structural inequality influences diverse populations differently.

Sensitivity Analysis

Sensitivity analyses adjusting for racial homogeneity at the state-level (i.e., % White) have been provided in Supplemental Table S18-21.

Results

Race/ethnicity-related differences in the association of inequality with brain structure and connectivity

Given that adolescents from racially and ethnically minoritized backgrounds—particularly Black and Hispanic youth—experience higher levels of stressors and structural disadvantage (10), we initially examined race/ethnicity as a binary variable (non-Hispanic White versus non-White) to assess whether the association between income inequality and brain outcomes differed, in broad terms, between majority and minority groups. This approach yielded roughly balanced group sizes, improving statistical power and stability of estimates. Where significant moderation effects emerged, we conducted more granular analyses using a four-level nominal race/ethnicity variable (White, Black, Hispanic, Other).

The association of inequality with cortical thickness of a few frontal regions—including the rostral middle frontal, superior frontal, and caudal middle frontal—and the pericalcarine region was moderated by race/ethnicity such that the association between inequality and thickness was more negative among non-Hispanic White youth relative to non-White youth. On the other hand, the association between inequality and connectivity of the VAN to the CON and DAN was more positive among non-Hispanic White youth relative to non-White youth (Figure S1; model output in legend). Complete model output for all associations is available in Supplementary Table S15 and S16. We examined these associations at a more granular level (i.e., with race and ethnicity as a nominal variable with four levels: White, Black, Hispanic, and Other; the Asian group was left out of this analysis due to the sample being relatively small [$n < 200$]). Simple slope analyses demonstrated that associations were always significant in the White group and never in the Black group. Additionally, associations were significant in the Hispanic group for three out of six variables (see Table S17 and Figure S2).

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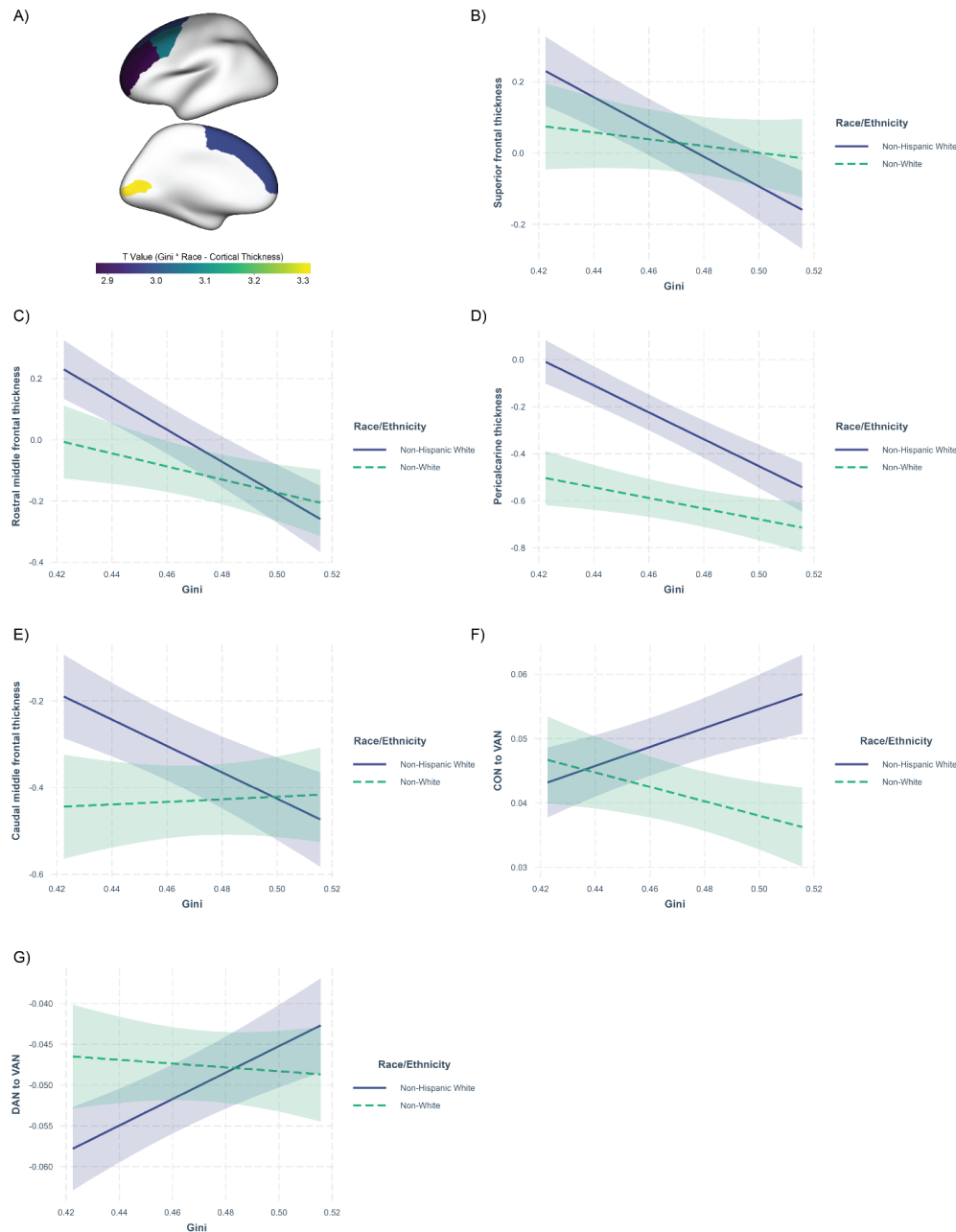


Figure S1. Race/ethnicity-related differences in brain structure and connectivity.

(A) t-Statistic values from linear mixed-effects models for associations between cortical thickness and Gini $\times$ race (C). B to G, Associations between Gini coefficient (x-axis) and cortical thickness/connectivity (y-axis) are depicted for non-Hispanic White and non-White participants for superior frontal (B), rostral middle frontal (C), pericalcarine (D) and caudal middle frontal (E) thickness as well as CON to VAN (F) and DAN to VAN (G) connectivity.

Caudal middle frontal thickness $B = 0.071$, $SE = 0.023$, $t = 3.075$, $p = 0.002$; pericalcarine thickness: $B = 0.073$, $SE = 0.022$, $t = 3.313$, $p = 0.001$; rostral middle frontal: $B = 0.066$, $SE = 0.023$, $t = 2.879$, $p = 0.004$; superior frontal: $B = 0.068$, $SE = 0.023$, $t = 2.956$, $p = 0.003$; CON to VAN: $B = -0.106$, $SE = 0.025$, $t = -4.319$, $p < 0.001$; DAN to VAN: $B = -0.087$, $SE = 0.025$, $t = -3.518$, $p < 0.001$

CON, cingulo-opercular network; DAN, dorsal attention network; VAN, ventral attention network.

Mediation

For brain variables where there was a moderation by race/ethnicity, we further tested moderated mediation models. We did not find that race/ethnicity modified the relationship between income inequality, brain structure and connectivity, and youth mental health problems at 18 months. However, for mental health problems at 6-months, we found that the association was mediated by connectivity between the CON and VAN, and this mediation pathway was moderated by race/ethnicity. Specifically, for non-Hispanic White youth, higher income inequality was associated with increased neural connectivity, which in turn predicted worse mental health outcomes (indirect effect: $B = 0.002$, $p = 0.02$). For non-White youth, however, the association between income inequality and neural connectivity was weaker, and the indirect effect was negative ($B = -0.002$, $p = 0.037$). The index of moderated mediation was significant ($B = -0.004$, $p = 0.006$), highlighting that the mediation effect differs significantly by race/ethnicity. This result was still significant in sensitivity analyses accounting for total mental health problems at baseline.

Table S15: The moderating role of race/ethnicity in the association of inequality and brain structure

Variable	B	SE	T	P
M_smri_thick_cdk_bankssts	0.009	0.023	0.413	0.680
M_smri_thick_cdk_cdacate	0.008	0.023	0.358	0.720
M_smri_thick_cdk_cdmdfr	0.071	0.023	3.075	0.002
M_smri_thick_cdk_cuneus	0.015	0.022	0.667	0.505
M_smri_thick_cdk_ehinal	0.012	0.023	0.527	0.598
M_smri_thick_cdk_fusiform	-0.033	0.023	-1.479	0.139
M_smri_thick_cdk_ifpl	-0.016	0.022	-0.708	0.479
M_smri_thick_cdk_iftm	-0.037	0.023	-1.626	0.104
M_smri_thick_cdk_ihcate	0.034	0.023	1.476	0.140
M_smri_thick_cdk_locc	0.017	0.020	0.839	0.401
M_smri_thick_cdk_lobfr	0.010	0.023	0.448	0.654
M_smri_thick_cdk_lingual	0.046	0.022	2.104	0.035
M_smri_thick_cdk_mobfr	0.019	0.022	0.828	0.407
M_smri_thick_cdk_mdtm	-0.004	0.022	-0.180	0.857
M_smri_thick_cdk_parahpal	-0.002	0.023	-0.110	0.912
M_smri_thick_cdk_paracn	0.026	0.023	1.128	0.259
M_smri_thick_cdk_parsopc	0.003	0.023	0.125	0.901
M_smri_thick_cdk_parsobis	0.011	0.023	0.468	0.640
M_smri_thick_cdk_parstgris	0.017	0.023	0.730	0.466
M_smri_thick_cdk_pericc	0.073	0.022	3.313	0.001
M_smri_thick_cdk_postcn	0.015	0.022	0.671	0.502
M_smri_thick_cdk_ptcate	0.008	0.023	0.330	0.741

M_smri_thick_cdk_precn	0.017	0.023	0.746	0.456
M_smri_thick_cdk_pc	-0.012	0.023	-0.533	0.594
M_smri_thick_cdk_rracate	0.015	0.022	0.664	0.507
M_smri_thick_cdk_rrmdfr	0.066	0.023	2.879	0.004
M_smri_thick_cdk_sufr	0.068	0.023	2.956	0.003
M_smri_thick_cdk_supl	-0.017	0.022	-0.772	0.440
M_smri_thick_cdk_sutm	-0.012	0.022	-0.534	0.593
M_smri_thick_cdk_sm	-0.010	0.021	-0.451	0.652
M_smri_thick_cdk_frpole	-0.003	0.023	-0.143	0.887
M_smri_thick_cdk_tmpole	0.000	0.023	0.006	0.995
M_smri_thick_cdk_trvtm	-0.013	0.023	-0.577	0.564
M_smri_thick_cdk_insula	-0.008	0.023	-0.365	0.715
M_smri_area_cdk_bankssts	-0.014	0.022	-0.665	0.506
M_smri_area_cdk_cdacate	-0.009	0.023	-0.380	0.704
M_smri_area_cdk_cdmdfr	-0.007	0.022	-0.303	0.762
M_smri_area_cdk_cuneus	0.010	0.022	0.469	0.639
M_smri_area_cdk_ehinal	-0.021	0.022	-0.930	0.352
M_smri_area_cdk_fusiform	-0.005	0.020	-0.227	0.820
M_smri_area_cdk_ifpl	-0.037	0.021	-1.729	0.084
M_smri_area_cdk_iftm	-0.006	0.020	-0.291	0.771
M_smri_area_cdk_ihcate	-0.019	0.022	-0.866	0.387
M_smri_area_cdk_locc	-0.023	0.021	-1.124	0.261
M_smri_area_cdk_lobfr	0.009	0.021	0.432	0.666
M_smri_area_cdk_lingual	0.014	0.023	0.632	0.528
M_smri_area_cdk_mobfr	-0.006	0.021	-0.280	0.780
M_smri_area_cdk_mdtm	-0.011	0.021	-0.536	0.592
M_smri_area_cdk_parahpal	-0.025	0.022	-1.094	0.274
M_smri_area_cdk_paracn	0.009	0.022	0.413	0.679
M_smri_area_cdk_parsopc	-0.020	0.022	-0.897	0.370
M_smri_area_cdk_parsobis	-0.005	0.021	-0.263	0.793
M_smri_area_cdk_parstgris	-0.001	0.022	-0.058	0.954
M_smri_area_cdk_pericc	0.025	0.023	1.079	0.281
M_smri_area_cdk_postcn	0.000	0.021	0.006	0.995
M_smri_area_cdk_ptcate	-0.014	0.022	-0.644	0.519
M_smri_area_cdk_precn	-0.013	0.020	-0.614	0.539
M_smri_area_cdk_pc	-0.012	0.021	-0.563	0.574
M_smri_area_cdk_rracate	0.006	0.022	0.272	0.786
M_smri_area_cdk_rrmdfr	-0.006	0.021	-0.313	0.754
M_smri_area_cdk_sufr	-0.008	0.021	-0.364	0.716
M_smri_area_cdk_supl	-0.009	0.022	-0.407	0.684
M_smri_area_cdk_sutm	-0.025	0.021	-1.179	0.239
M_smri_area_cdk_sm	-0.026	0.021	-1.254	0.210
M_smri_area_cdk_frpole	-0.018	0.021	-0.883	0.377
M_smri_area_cdk_tmpole	0.019	0.021	0.871	0.384
M_smri_area_cdk_trvtm	-0.051	0.022	-2.254	0.024
M_smri_area_cdk_insula	-0.027	0.021	-1.279	0.201

Table S16: The moderating role of race/ethnicity in the association of inequality and brain connectivity

Variable	B	SE	T	P
AN to AN	-0.022	0.025	-0.897	0.370
AN to CON	-0.040	0.025	-1.635	0.102
CON to CON	0.010	0.024	0.423	0.673
CPN to CON	0.034	0.025	1.360	0.174
AN to CPN	0.012	0.024	0.503	0.615
CPN to CPN	0.002	0.025	0.065	0.948
AN to DMN	-0.023	0.025	-0.917	0.359
CON to DMN	-0.066	0.024	-2.734	0.006
CPN to DMN	-0.061	0.025	-2.406	0.016
DMN to DMN	0.015	0.024	0.647	0.518
DAN to DMN	-0.051	0.024	-2.173	0.030
AN to DAN	-0.053	0.025	-2.129	0.033
CON to DAN	-0.013	0.025	-0.531	0.596
CPN to DAN	0.022	0.025	0.888	0.375
DAN to DAN	0.055	0.025	2.222	0.026
AN to FPN	-0.053	0.025	-2.133	0.033
CON to FPN	-0.058	0.025	-2.315	0.021
CPN to FPN	0.060	0.025	2.398	0.017
DMN to FPN	-0.005	0.025	-0.209	0.835
DAN to FPN	-0.014	0.025	-0.562	0.574
FPN to FPN	0.061	0.025	2.499	0.012
AN to RTN	-0.059	0.025	-2.416	0.016
CON to RTN	-0.030	0.024	-1.217	0.224
CPN to RTN	-0.012	0.026	-0.480	0.631
DMN to RTN	-0.068	0.025	-2.682	0.007
DAN to RTN	0.061	0.025	2.443	0.015
FPN to RTN	-0.016	0.025	-0.633	0.527
RTN to RTN	0.065	0.024	2.679	0.007
AN to SN	-0.043	0.025	-1.749	0.080
CON to SN	-0.001	0.025	-0.046	0.963
CPN to SN	0.046	0.025	1.844	0.065
DMN to SN	-0.054	0.025	-2.161	0.031
DAN to SN	-0.062	0.025	-2.474	0.013
FPN to SN	-0.028	0.025	-1.139	0.255
RTN to SN	-0.077	0.025	-3.093	0.002
SN to SN	0.022	0.025	0.891	0.373
AN to SMN (H)	-0.018	0.024	-0.746	0.456
CON to SMN (H)	-0.020	0.025	-0.784	0.433
CPN to SMN (H)	-0.024	0.025	-0.984	0.325
DMN to SMN (H)	-0.012	0.025	-0.488	0.625
DAN to SMN (H)	-0.032	0.025	-1.269	0.205
FPN to SMN (H)	-0.052	0.025	-2.128	0.033
RTN to SMN (H)	-0.021	0.025	-0.845	0.398

SN to SMN (H)	-0.028	0.025	-1.119	0.263
SMN (H) to SMN (H)	0.005	0.024	0.217	0.828
AN to SMN (M)	-0.015	0.024	-0.625	0.532
CON to SMN (M)	-0.007	0.025	-0.271	0.787
CPN to SMN (M)	0.063	0.025	2.540	0.011
DMN to SMN (M)	0.008	0.025	0.335	0.737
DAN to SMN (M)	-0.060	0.025	-2.441	0.015
FPN to SMN (M)	-0.024	0.025	-0.984	0.325
RTN to SMN (M)	0.016	0.025	0.628	0.530
SN to SMN (M)	0.009	0.025	0.367	0.713
SMN (H) to SMN (M)	-0.039	0.024	-1.626	0.104
SMN (M) to SMN (M)	0.017	0.025	0.676	0.499
AN to VAN	-0.071	0.025	-2.866	0.004
CON to VAN	-0.106	0.025	-4.319	0.000
CPN to VAN	-0.013	0.025	-0.515	0.607
DMN to VAN	0.028	0.025	1.148	0.251
DAN to VAN	-0.087	0.025	-3.518	0.000
FPN to VAN	-0.051	0.025	-2.040	0.041
RTN to VAN	-0.054	0.025	-2.192	0.028
SN to VAN	-0.040	0.024	-1.659	0.097
SMN (H) to VAN	-0.070	0.025	-2.789	0.005
SMN (M) to VAN	-0.025	0.025	-0.987	0.324
VAN to VAN	0.002	0.025	0.063	0.950
VN to VAN	-0.021	0.024	-0.866	0.386
AN to VN	-0.032	0.025	-1.310	0.190
CON to VN	-0.006	0.025	-0.221	0.825
CPN to VN	-0.003	0.025	-0.106	0.915
DMN to VN	-0.054	0.024	-2.266	0.024
DAN to VN	0.064	0.025	2.575	0.010
FPN to VN	-0.014	0.024	-0.574	0.566
RTN to VN	0.061	0.025	2.460	0.014
SN to VN	-0.012	0.025	-0.490	0.624
SMN (H) to VN	0.026	0.025	1.058	0.290
SMN (M) to VN	-0.029	0.025	-1.165	0.244
VN to VN	0.049	0.023	2.141	0.032

Discussion

Further, race and ethnicity moderated some associations between income inequality and brain structure and connectivity, where effects were more pronounced among White compared to non-White youth. In more granular analyses, we found that while non-White youth had lower thickness when inequality was low—likely due to disparities in childhood adversity (3)—associations between inequality and thickness were negative in the White, and sometimes Hispanic groups, but not the

Black group. Similarly, associations between inequality and connectivity were significant in the White, and sometimes Hispanic groups, but not the Black group. These findings are challenging to interpret but may be due to a few different reasons. One possibility is that self-esteem in Black communities may be less impacted by inequality. Some work has shown that Black individuals reported significantly higher subjective status than Whites (11). This may be due to subjective status capturing other factors such as self-esteem, which was found to be higher in Blacks in a meta-analysis of 354 samples (12). This finding is somewhat counterintuitive given that Black individuals are more likely to experience discrimination and economic disadvantage. However, it has been suggested that internalized stigma in these groups may transform into a stronger sense of racial and group identity (12). Further, it is possible that White youth might perceive inequality as a deviation from expected privilege or status, whereas non-White youth may have a more normalized or anticipated expectation of systemic disadvantage and discrimination (13). It is therefore possible that inequality may be less psychologically destabilizing for Black youth, particularly if they anticipate structural barriers or hold a strong racial identity that buffers the effects of inequality. This is consistent with work showing that the link between subjective social status and psychopathology is stronger for White compared to Black adolescents (14). It is also possible that for non-White and particularly Black youth, protective factors such as collectivist norms and social cohesion—potentially less eroded in these communities—may buffer the effects of income inequality on stress and neurodevelopment and promote resilience in the context of inequality. Supporting this idea, studies have shown that African American adolescents living in communities with a higher proportion of African American residents experience fewer symptoms of depression and anxiety, likely due to increased social support and stronger perceptions of neighborhood cohesion (15). Importantly, however, we note that these groups are highly heterogeneous in themselves, and caution is warranted for any interpretations. More work is needed before any definitive conclusions can be drawn.

The putative stress buffering effect discussed previously may also explain our moderated mediation findings which showed that connectivity between the VAN and CON played a protective role in mental health among non-White youth. However, any interpretations warrant caution, as these effects were observed only at the 6-month follow-up and not at 18 months. This difference may be due to the time difference between when functional connectivity and mental health were assessed, as functional connectivity is partially state dependent (16). Additionally, there is limited evidence supporting racial/ethnic differences in the associations between inequality and mental health (1, 17–19). It is also possible that those from minoritized communities may be less willing to report symptoms as more unequal societies are associated with greater self-enhancement (20). Future

research is needed to directly test whether stronger social ties and cohesion serve as buffers against the effects of income inequality on stress and neurodevelopment, particularly in non-White youth.

Limitation

Race and ethnicity serve as a proxy for lived experience of systemic racism, discrimination, and structural disadvantage, and results should be interpreted with caution. Future work should directly assess the role of these factors in brain development and mental health.

Table S17: Simple slope results for race moderation effects

Brain Region / Network	Group	Estimate	S.E.	t-value	p-value
Caudal Middle Frontal (cdmdfr)	White	-0.06	0.02	-4.24	0.00*
	Black	0.01	0.04	0.30	0.76
	Hispanic	0.02	0.03	0.64	0.52
	Other	-0.02	0.04	-0.52	0.60
Pericalcarine (pericc)	White	-0.12	0.01	-8.61	0.00*
	Black	0.01	0.04	0.16	0.87
	Hispanic	-0.06	0.03	-2.18	0.03*
	Other	-0.11	0.03	-3.22	0.00*
Rostral Middle Frontal (rrmdfr)	White	-0.11	0.02	-7.34	0.00*
	Black	-0.02	0.04	-0.66	0.51
	Hispanic	-0.06	0.03	-2.13	0.03*
	Other	-0.07	0.04	-1.90	0.06
Superior Frontal (suftr)	White	-0.09	0.02	-5.78	0.00*
	Black	-0.02	0.04	-0.45	0.65
	Hispanic	-0.02	0.03	-0.75	0.45
	Other	-0.04	0.04	-1.09	0.28
VAN to CON Connectivity	White	0.05	0.02	3.06	0.00*
	Black	-0.05	0.04	-1.20	0.23
	Hispanic	-0.08	0.03	-2.56	0.01*
	Other	-0.03	0.04	-0.84	0.40
VAN to DAN connectivity	White	0.06	0.02	3.88	0.00*
	Black	0.01	0.04	0.22	0.82
	Hispanic	-0.00	0.03	-0.03	0.98
	Other	-0.06	0.04	-1.61	0.11

* $p < 0.05$

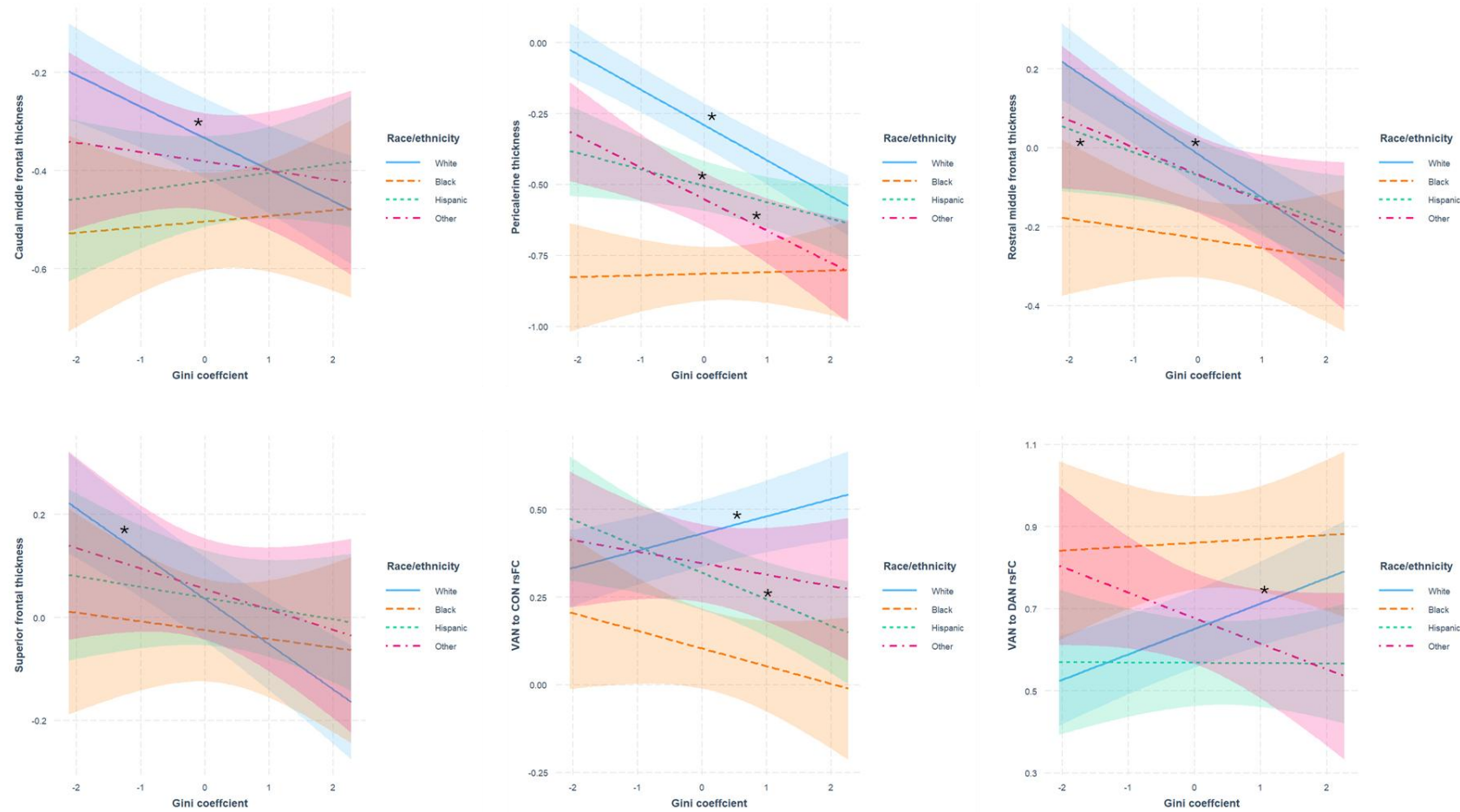


Figure S2. Race/ethnicity-related differences in brain structure and connectivity. (race treated as nominal with 4 level)

Table S18: Associations between inequality and brain structure adjusted for racial homogeneity (% white)

Variable	B	SE	T	P	PFDR	
M_smri_thick_cdk_bankssts	0.052	0.013	3.836	1.26E-04	0.000	*
M_smri_thick_cdk_cdacate	-0.046	0.014	-3.367	7.63E-04	0.002	*
M_smri_thick_cdk_cdmdfr	-0.008	0.014	-0.621	5.34E-01	0.673	
M_smri_thick_cdk_cuneus	-0.067	0.013	-5.075	3.95E-07	0.000	*
M_smri_thick_cdk_ehinal	-0.057	0.013	-4.298	1.74E-05	0.000	*
M_smri_thick_cdk_fusiform	-0.029	0.013	-2.145	3.20E-02	0.057	
M_smri_thick_cdk_ifpl	-0.042	0.013	-3.255	1.14E-03	0.003	*
M_smri_thick_cdk_iftm	-0.006	0.013	-0.418	6.76E-01	0.782	
M_smri_thick_cdk_ihcate	-0.047	0.014	-3.408	6.59E-04	0.002	*
M_smri_thick_cdk_locc	-0.059	0.012	-4.939	8.01E-07	0.000	*
M_smri_thick_cdk_lobfr	-0.114	0.013	-8.509	2.04E-17	0.000	*
M_smri_thick_cdk_lingual	-0.041	0.013	-3.105	1.91E-03	0.005	*
M_smri_thick_cdk_mobfr	-0.067	0.013	-5.114	3.23E-07	0.000	*
M_smri_thick_cdk_mdtm	0.013	0.013	1.029	3.03E-01	0.449	
M_smri_thick_cdk_parahpal	0.000	0.013	0.031	9.75E-01	0.986	
M_smri_thick_cdk_paracn	0.001	0.013	0.057	9.54E-01	0.986	
M_smri_thick_cdk_parsopc	-0.013	0.013	-0.994	3.20E-01	0.450	
M_smri_thick_cdk_parsobis	-0.032	0.013	-2.395	1.67E-02	0.034	*
M_smri_thick_cdk_parstgris	-0.005	0.014	-0.399	6.90E-01	0.782	
M_smri_thick_cdk_pericc	-0.051	0.013	-3.932	8.48E-05	0.000	*
M_smri_thick_cdk_postcn	0.012	0.013	0.946	3.44E-01	0.450	
M_smri_thick_cdk_ptcate	0.005	0.014	0.401	6.89E-01	0.782	
M_smri_thick_cdk_precn	0.000	0.013	-0.017	9.86E-01	0.986	
M_smri_thick_cdk_pc	-0.013	0.014	-0.952	3.41E-01	0.450	
M_smri_thick_cdk_rracate	-0.071	0.013	-5.410	6.47E-08	0.000	*
M_smri_thick_cdk_rrmdfr	-0.052	0.013	-3.844	1.22E-04	0.000	*
M_smri_thick_cdk_sufr	-0.025	0.014	-1.879	6.03E-02	0.098	
M_smri_thick_cdk_supl	-0.032	0.013	-2.387	1.70E-02	0.034	*
M_smri_thick_cdk_sutm	0.003	0.013	0.252	8.01E-01	0.879	
M_smri_thick_cdk_sm	0.027	0.013	2.154	3.12E-02	0.057	
M_smri_thick_cdk_frpole	-0.016	0.013	-1.179	2.38E-01	0.368	
M_smri_thick_cdk_tmpole	-0.040	0.013	-2.947	3.21E-03	0.007	*
M_smri_thick_cdk_trvtm	-0.028	0.013	-2.058	3.96E-02	0.067	
M_smri_thick_cdk_insula	-0.114	0.013	-8.585	1.07E-17	0.000	*
M_smri_area_cdk_bankssts	0.001	0.013	0.098	9.22E-01	0.941	
M_smri_area_cdk_cdacate	-0.022	0.013	-1.613	1.07E-01	0.202	
M_smri_area_cdk_cdmdfr	-0.039	0.013	-2.994	2.76E-03	0.017	*
M_smri_area_cdk_cuneus	-0.039	0.013	-2.963	3.06E-03	0.017	*
M_smri_area_cdk_ehinal	0.007	0.013	0.568	5.70E-01	0.646	
M_smri_area_cdk_fusiform	-0.003	0.012	-0.246	8.06E-01	0.856	
M_smri_area_cdk_ifpl	0.001	0.013	0.074	9.41E-01	0.941	
M_smri_area_cdk_iftm	0.009	0.012	0.728	4.67E-01	0.588	
M_smri_area_cdk_ihcate	-0.019	0.013	-1.449	1.47E-01	0.251	

M_smri_area_cdk_locc	-0.021	0.012	-1.678	9.33E-02	0.202	
M_smri_area_cdk_lobfr	-0.013	0.013	-1.056	2.91E-01	0.413	
M_smri_area_cdk_lingual	-0.015	0.013	-1.108	2.68E-01	0.396	
M_smri_area_cdk_mobfr	-0.011	0.012	-0.845	3.98E-01	0.541	
M_smri_area_cdk_mdtm	0.008	0.012	0.631	5.28E-01	0.624	
M_smri_area_cdk_parahpal	0.010	0.013	0.747	4.55E-01	0.588	
M_smri_area_cdk_paracn	-0.019	0.013	-1.462	1.44E-01	0.251	
M_smri_area_cdk_parsopc	-0.041	0.013	-3.145	1.67E-03	0.014	*
M_smri_area_cdk_parsobis	-0.042	0.012	-3.383	7.19E-04	0.012	*
M_smri_area_cdk_parstgris	-0.029	0.013	-2.258	2.40E-02	0.068	
M_smri_area_cdk_pericc	-0.039	0.014	-2.834	4.60E-03	0.022	*
M_smri_area_cdk_postcn	-0.020	0.012	-1.659	9.72E-02	0.202	
M_smri_area_cdk_ptcate	-0.007	0.013	-0.516	6.06E-01	0.665	
M_smri_area_cdk_precn	-0.029	0.012	-2.399	1.64E-02	0.054	
M_smri_area_cdk_pc	-0.030	0.013	-2.387	1.70E-02	0.054	
M_smri_area_cdk_rracate	-0.018	0.013	-1.415	1.57E-01	0.254	
M_smri_area_cdk_rrmdfr	-0.047	0.012	-3.811	1.39E-04	0.005	*
M_smri_area_cdk_sufr	-0.030	0.013	-2.376	1.75E-02	0.054	
M_smri_area_cdk_supl	-0.027	0.013	-2.137	3.26E-02	0.079	
M_smri_area_cdk_suttm	-0.028	0.012	-2.224	2.62E-02	0.068	
M_smri_area_cdk_sm	-0.008	0.013	-0.625	5.32E-01	0.624	
M_smri_area_cdk_frpole	-0.041	0.012	-3.279	1.05E-03	0.012	*
M_smri_area_cdk_tmpole	-0.015	0.013	-1.186	2.36E-01	0.364	
M_smri_area_cdk_trvtm	-0.034	0.013	-2.554	1.07E-02	0.045	*
M_smri_area_cdk_insula	-0.020	0.013	-1.616	1.06E-01	0.202	

* $p\text{FDR} < 0.05$ **Table S19: Associations between inequality and brain connectivity adjusted for racial homogeneity (% white)**

Variable	B	SE	T	P	PFDR	
AN to AN	0.027	0.015	1.824	6.81E-02	0.178	
AN to CON	0.024	0.015	1.626	1.04E-01	0.238	
CON to CON	-0.045	0.014	-3.202	1.37E-03	0.030	*
CPN to CON	-0.023	0.015	-1.570	1.16E-01	0.245	
AN to CPN	-0.006	0.015	-0.401	6.89E-01	0.778	
CPN to CPN	0.027	0.015	1.812	7.01E-02	0.178	
AN to DMN	-0.020	0.015	-1.341	1.80E-01	0.323	
CON to DMN	0.022	0.014	1.501	1.33E-01	0.267	
CPN to DMN	-0.020	0.015	-1.363	1.73E-01	0.321	
DMN to DMN	-0.023	0.014	-1.630	1.03E-01	0.238	
DAN to DMN	0.041	0.014	2.947	3.22E-03	0.030	*
AN to DAN	0.017	0.015	1.113	2.66E-01	0.432	
CON to DAN	0.016	0.015	1.080	2.80E-01	0.446	
CPN to DAN	0.036	0.015	2.408	1.61E-02	0.063	

DAN to DAN	-0.007	0.015	-0.452	6.51E-01	0.760	
AN to FPN	0.007	0.015	0.450	6.53E-01	0.760	
CON to FPN	0.010	0.015	0.685	4.93E-01	0.702	
CPN to FPN	-0.024	0.015	-1.582	1.14E-01	0.245	
DMN to FPN	0.028	0.015	1.836	6.64E-02	0.178	
DAN to FPN	0.024	0.015	1.612	1.07E-01	0.238	
FPN to FPN	0.044	0.015	2.992	2.78E-03	0.030	*
AN to RTN	0.027	0.015	1.849	6.46E-02	0.178	
CON to RTN	0.036	0.014	2.498	1.25E-02	0.054	
CPN to RTN	0.047	0.015	3.102	1.93E-03	0.030	*
DMN to RTN	0.002	0.015	0.132	8.95E-01	0.943	
DAN to RTN	-0.018	0.015	-1.223	2.21E-01	0.384	
FPN to RTN	0.027	0.015	1.829	6.75E-02	0.178	
RTN to RTN	-0.034	0.014	-2.368	1.79E-02	0.066	
AN to SN	0.020	0.015	1.334	1.82E-01	0.323	
CON to SN	0.009	0.015	0.570	5.69E-01	0.728	
CPN to SN	-0.006	0.015	-0.421	6.74E-01	0.773	
DMN to SN	-0.026	0.015	-1.748	8.05E-02	0.196	
DAN to SN	0.045	0.015	2.988	2.82E-03	0.030	*
FPN to SN	0.002	0.015	0.117	9.07E-01	0.943	
RTN to SN	0.031	0.015	2.080	3.76E-02	0.127	
SN to SN	-0.008	0.015	-0.555	5.79E-01	0.728	
AN to SMN (H)	-0.010	0.015	-0.664	5.07E-01	0.702	
CON to SMN (H)	-0.033	0.015	-2.218	2.66E-02	0.094	
CPN to SMN (H)	-0.010	0.015	-0.654	5.13E-01	0.702	
DMN to SMN (H)	-0.023	0.015	-1.526	1.27E-01	0.261	
DAN to SMN (H)	-0.001	0.015	-0.041	9.67E-01	0.967	
FPN to SMN (H)	-0.020	0.015	-1.370	1.71E-01	0.321	
RTN to SMN (H)	0.039	0.015	2.631	8.52E-03	0.045	*
SN to SMN (H)	-0.011	0.015	-0.729	4.66E-01	0.699	
SMN (H) to SMN (H)	0.036	0.015	2.477	1.33E-02	0.055	
AN to SMN (M)	0.037	0.015	2.558	1.06E-02	0.048	*
CON to SMN (M)	-0.022	0.015	-1.487	1.37E-01	0.267	
CPN to SMN (M)	0.041	0.015	2.784	5.39E-03	0.035	*
DMN to SMN (M)	0.017	0.015	1.171	2.41E-01	0.409	
DAN to SMN (M)	-0.010	0.015	-0.680	4.97E-01	0.702	
FPN to SMN (M)	0.007	0.015	0.484	6.28E-01	0.754	
RTN to SMN (M)	0.008	0.015	0.572	5.68E-01	0.728	
SN to SMN (M)	-0.008	0.015	-0.531	5.96E-01	0.738	
SMN (H) to SMN (M)	0.001	0.014	0.053	9.57E-01	0.967	
SMN (M) to SMN (M)	0.002	0.015	0.149	8.81E-01	0.943	
AN to VAN	0.002	0.015	0.129	8.98E-01	0.943	
CON to VAN	0.015	0.015	1.034	3.01E-01	0.470	
CPN to VAN	0.009	0.015	0.629	5.30E-01	0.708	
DMN to VAN	-0.002	0.015	-0.134	8.94E-01	0.943	
DAN to VAN	0.001	0.015	0.083	9.33E-01	0.958	
FPN to VAN	-0.003	0.015	-0.221	8.25E-01	0.919	
RTN to VAN	0.038	0.015	2.574	1.01E-02	0.048	*

SN to VAN	-0.007	0.015	-0.496	6.20E-01	0.754	
SMN (H) to VAN	-0.043	0.015	-2.896	3.79E-03	0.030	*
SMN (M) to VAN	0.012	0.015	0.832	4.05E-01	0.620	
VAN to VAN	-0.009	0.015	-0.619	5.36E-01	0.708	
VN to VAN	0.040	0.014	2.762	5.75E-03	0.035	*
AN to VN	0.030	0.015	2.050	4.04E-02	0.131	
CON to VN	0.017	0.015	1.131	2.58E-01	0.428	
CPN to VN	0.061	0.015	4.075	4.64E-05	0.002	*
DMN to VN	0.041	0.014	2.841	4.51E-03	0.032	*
DAN to VN	-0.039	0.015	-2.623	8.73E-03	0.045	*
FPN to VN	0.010	0.015	0.711	4.77E-01	0.702	
RTN to VN	-0.045	0.015	-3.065	2.18E-03	0.030	*
SN to VN	0.027	0.015	1.806	7.09E-02	0.178	
SMN (H) to VN	0.042	0.015	2.892	3.83E-03	0.030	*
SMN (M) to VN	-0.028	0.015	-1.862	6.26E-02	0.178	
VN to VN	-0.078	0.014	-5.701	1.24E-08	0.000	*

* $pFDR < 0.05$

Table S20: Moderating role of race/ethnicity in the associations between inequality and brain structure adjusted for racial homogeneity (% white)

Variable	B	SE	T	P	PFDR	
M_smri_thick_cdk_bankssts	0.010	0.023	0.453	0.650	0.924	
M_smri_thick_cdk_cdacate	0.005	0.023	0.239	0.811	0.924	
M_smri_thick_cdk_cdmfdr	0.065	0.023	2.851	0.004	0.074	
M_smri_thick_cdk_cuneus	0.006	0.022	0.285	0.776	0.924	
M_smri_thick_cdk_ehinal	0.010	0.023	0.430	0.667	0.924	
M_smri_thick_cdk_fusiform	-0.036	0.023	-1.578	0.115	0.557	
M_smri_thick_cdk_ifpl	-0.014	0.022	-0.638	0.523	0.924	
M_smri_thick_cdk_iftm	-0.037	0.023	-1.654	0.098	0.557	
M_smri_thick_cdk_ihcate	0.032	0.023	1.377	0.169	0.716	
M_smri_thick_cdk_locc	0.011	0.020	0.540	0.590	0.924	
M_smri_thick_cdk_lobfr	0.006	0.023	0.282	0.778	0.924	
M_smri_thick_cdk_lingual	0.037	0.022	1.704	0.088	0.557	
M_smri_thick_cdk_mobfr	0.011	0.022	0.480	0.631	0.924	
M_smri_thick_cdk_mdtm	-0.003	0.022	-0.135	0.892	0.924	
M_smri_thick_cdk_parahpal	-0.007	0.023	-0.309	0.757	0.924	
M_smri_thick_cdk_paracn	0.022	0.023	0.952	0.341	0.924	
M_smri_thick_cdk_parsopc	0.003	0.023	0.129	0.897	0.924	
M_smri_thick_cdk_parsobis	0.011	0.023	0.463	0.644	0.924	
M_smri_thick_cdk_parstgris	0.015	0.023	0.667	0.505	0.924	
M_smri_thick_cdk_pericc	0.064	0.022	2.898	0.004	0.074	
M_smri_thick_cdk_postcn	0.014	0.022	0.654	0.513	0.924	
M_smri_thick_cdk_ptcate	0.005	0.023	0.233	0.816	0.924	

M_smri_thick_cdk_precn	0.014	0.023	0.608	0.543	0.924	
M_smri_thick_cdk_pc	-0.015	0.023	-0.670	0.503	0.924	
M_smri_thick_cdk_rracate	0.010	0.022	0.461	0.645	0.924	
M_smri_thick_cdk_rrmdfr	0.060	0.023	2.622	0.009	0.075	
M_smri_thick_cdk_sufr	0.063	0.023	2.718	0.007	0.075	
M_smri_thick_cdk_supl	-0.018	0.022	-0.810	0.418	0.924	
M_smri_thick_cdk_sutm	-0.011	0.023	-0.470	0.638	0.924	
M_smri_thick_cdk_sm	-0.009	0.022	-0.403	0.687	0.924	
M_smri_thick_cdk_frpole	-0.004	0.023	-0.182	0.855	0.924	
M_smri_thick_cdk_tmpole	0.000	0.023	0.006	0.995	0.995	
M_smri_thick_cdk_trvtm	-0.014	0.023	-0.603	0.546	0.924	
M_smri_thick_cdk_insula	-0.012	0.023	-0.549	0.583	0.924	
M_smri_area_cdk_bankssts	-0.011	0.022	-0.531	0.595	0.828	
M_smri_area_cdk_cdacate	-0.009	0.023	-0.411	0.681	0.828	
M_smri_area_cdk_cdmdfr	-0.008	0.022	-0.388	0.698	0.828	
M_smri_area_cdk_cuneus	0.011	0.022	0.473	0.636	0.828	
M_smri_area_cdk_ehinal	-0.023	0.022	-1.030	0.303	0.828	
M_smri_area_cdk_fusiform	-0.005	0.020	-0.263	0.792	0.882	
M_smri_area_cdk_ifpl	-0.037	0.021	-1.717	0.086	0.828	
M_smri_area_cdk_iftm	-0.009	0.020	-0.445	0.656	0.828	
M_smri_area_cdk_ihcate	-0.021	0.022	-0.965	0.335	0.828	
M_smri_area_cdk_locc	-0.025	0.021	-1.197	0.231	0.828	
M_smri_area_cdk_lobfr	0.005	0.021	0.248	0.804	0.882	
M_smri_area_cdk_lingual	0.014	0.023	0.613	0.540	0.828	
M_smri_area_cdk_mobfr	-0.008	0.021	-0.392	0.695	0.828	
M_smri_area_cdk_mdtm	-0.012	0.021	-0.602	0.547	0.828	
M_smri_area_cdk_parahpal	-0.021	0.022	-0.952	0.341	0.828	
M_smri_area_cdk_paracn	0.010	0.022	0.465	0.642	0.828	
M_smri_area_cdk_parsopc	-0.021	0.022	-0.977	0.328	0.828	
M_smri_area_cdk_parsobis	-0.008	0.021	-0.403	0.687	0.828	
M_smri_area_cdk_parstgris	-0.003	0.022	-0.123	0.902	0.922	
M_smri_area_cdk_pericc	0.026	0.023	1.137	0.256	0.828	
M_smri_area_cdk_postcn	-0.002	0.021	-0.098	0.922	0.922	
M_smri_area_cdk_ptcate	-0.015	0.022	-0.681	0.496	0.828	
M_smri_area_cdk_precn	-0.014	0.020	-0.680	0.496	0.828	
M_smri_area_cdk_pc	-0.014	0.021	-0.636	0.525	0.828	
M_smri_area_cdk_rracate	0.004	0.022	0.174	0.862	0.915	
M_smri_area_cdk_rrmdfr	-0.008	0.021	-0.376	0.707	0.828	
M_smri_area_cdk_sufr	-0.009	0.021	-0.416	0.678	0.828	
M_smri_area_cdk_supl	-0.011	0.022	-0.493	0.622	0.828	
M_smri_area_cdk_sutm	-0.023	0.021	-1.092	0.275	0.828	
M_smri_area_cdk_sm	-0.028	0.021	-1.320	0.187	0.828	
M_smri_area_cdk_frpole	-0.022	0.021	-1.042	0.298	0.828	*
M_smri_area_cdk_tmpole	0.018	0.022	0.826	0.409	0.828	
M_smri_area_cdk_trvtm	-0.048	0.022	-2.156	0.031	0.828	
M_smri_area_cdk_insula	-0.029	0.021	-1.371	0.171	0.828	

* $p\text{FDR} < 0.05$

Table S21: Moderating role of race/ethnicity in the associations between inequality and brain connectivity adjusted for racial homogeneity (% white)

Variable	B	SE	T	P	PFDR	
AN to AN	-0.025	0.025	-1.019	0.308	0.546	
AN to CON	-0.047	0.025	-1.898	0.058	0.142	
CON to CON	0.002	0.024	0.078	0.938	0.975	
CPN to CON	0.033	0.025	1.310	0.190	0.418	
AN to CPN	0.011	0.024	0.450	0.653	0.776	
CPN to CPN	0.000	0.025	0.019	0.985	0.989	
AN to DMN	-0.023	0.025	-0.925	0.355	0.577	
CON to DMN	-0.062	0.024	-2.558	0.011	0.097	
CPN to DMN	-0.059	0.025	-2.354	0.019	0.097	
DMN to DMN	0.011	0.024	0.458	0.647	0.776	
DAN to DMN	-0.047	0.024	-1.999	0.046	0.127	
AN to DAN	-0.050	0.025	-2.025	0.043	0.124	
CON to DAN	-0.011	0.025	-0.450	0.653	0.776	
CPN to DAN	0.021	0.025	0.831	0.406	0.633	
DAN to DAN	0.055	0.025	2.207	0.027	0.097	
AN to FPN	-0.054	0.025	-2.185	0.029	0.098	
CON to FPN	-0.055	0.025	-2.209	0.027	0.097	
CPN to FPN	0.063	0.025	2.506	0.012	0.097	
DMN to FPN	-0.006	0.025	-0.241	0.810	0.877	
DAN to FPN	-0.013	0.025	-0.513	0.608	0.776	
FPN to FPN	0.061	0.025	2.488	0.013	0.097	
AN to RTN	-0.055	0.024	-2.231	0.026	0.097	
CON to RTN	-0.024	0.024	-0.978	0.328	0.561	
CPN to RTN	-0.012	0.026	-0.473	0.636	0.776	
DMN to RTN	-0.066	0.025	-2.617	0.009	0.097	
DAN to RTN	0.058	0.025	2.308	0.021	0.097	
FPN to RTN	-0.012	0.025	-0.475	0.635	0.776	
RTN to RTN	0.060	0.024	2.481	0.013	0.097	
AN to SN	-0.047	0.025	-1.894	0.058	0.142	
CON to SN	-0.003	0.025	-0.121	0.904	0.966	
CPN to SN	0.049	0.025	1.957	0.050	0.136	
DMN to SN	-0.056	0.025	-2.217	0.027	0.097	
DAN to SN	-0.058	0.025	-2.320	0.020	0.097	
FPN to SN	-0.025	0.025	-1.026	0.305	0.546	
RTN to SN	-0.071	0.025	-2.865	0.004	0.081	
SN to SN	0.019	0.025	0.774	0.439	0.672	
AN to SMN (H)	-0.015	0.024	-0.623	0.533	0.743	
CON to SMN (H)	-0.021	0.025	-0.833	0.405	0.633	
CPN to SMN (H)	-0.026	0.025	-1.046	0.296	0.546	
DMN to SMN (H)	-0.014	0.025	-0.559	0.576	0.775	
DAN to SMN (H)	-0.031	0.025	-1.222	0.222	0.462	
FPN to SMN (H)	-0.056	0.025	-2.258	0.024	0.097	
RTN to SMN (H)	-0.019	0.025	-0.759	0.448	0.672	

SN to SMN (H)	-0.030	0.025	-1.214	0.225	0.462	
SMN (H) to SMN (H)	0.008	0.024	0.311	0.756	0.830	
AN to SMN (M)	-0.017	0.024	-0.686	0.493	0.712	
CON to SMN (M)	-0.008	0.025	-0.329	0.742	0.830	
CPN to SMN (M)	0.060	0.025	2.417	0.016	0.097	
DMN to SMN (M)	0.009	0.025	0.363	0.716	0.822	
DAN to SMN (M)	-0.057	0.025	-2.339	0.019	0.097	
FPN to SMN (M)	-0.025	0.025	-1.023	0.306	0.546	
RTN to SMN (M)	0.018	0.025	0.711	0.477	0.703	
SN to SMN (M)	0.008	0.025	0.326	0.745	0.830	
SMN (H) to SMN (M)	-0.032	0.024	-1.342	0.180	0.412	
SMN (M) to SMN (M)	0.013	0.025	0.540	0.589	0.776	
AN to VAN	-0.071	0.025	-2.866	0.004	0.081	
CON to VAN	-0.109	0.025	-4.412	0.000	0.001	*
CPN to VAN	-0.016	0.025	-0.638	0.523	0.742	
DMN to VAN	0.023	0.025	0.930	0.353	0.577	
DAN to VAN	-0.083	0.025	-3.375	0.001	0.029	*
FPN to VAN	-0.052	0.025	-2.069	0.039	0.116	
RTN to VAN	-0.051	0.025	-2.077	0.038	0.116	
SN to VAN	-0.047	0.024	-1.928	0.054	0.140	
SMN (H) to VAN	-0.069	0.025	-2.760	0.006	0.090	
SMN (M) to VAN	-0.024	0.025	-0.972	0.331	0.561	
VAN to VAN	0.000	0.025	-0.013	0.989	0.989	
VN to VAN	-0.014	0.024	-0.600	0.549	0.751	
AN to VN	-0.025	0.024	-1.023	0.306	0.546	
CON to VN	-0.001	0.025	-0.058	0.954	0.979	
CPN to VN	-0.002	0.025	-0.094	0.925	0.975	
DMN to VN	-0.050	0.024	-2.080	0.038	0.116	
DAN to VN	0.060	0.025	2.427	0.015	0.097	
FPN to VN	-0.011	0.024	-0.444	0.657	0.776	
RTN to VN	0.056	0.025	2.294	0.022	0.097	
SN to VN	-0.009	0.025	-0.373	0.709	0.822	
SMN (H) to VN	0.032	0.025	1.302	0.193	0.418	
SMN (M) to VN	-0.028	0.025	-1.124	0.261	0.523	
VN to VN	0.041	0.023	1.797	0.072	0.171	

* $p\text{FDR} < 0.05$

Table S22: Model fit statistics for mediation models (structure)

Variable	Chi-sq	df	pval	RMSEA	CFI	TLI
smri_area_cdk_total_residuals	6.833	2	0.033	0.016	0.998	0.984
smri_thick_cdk_mean_residuals	3.593	2	0.166	0.009	0.998	0.982
smri_vol_scs_wholeb_residuals	7.243	2	0.027	0.017	0.998	0.983
M_smri_thick_cdk_bankssts_residuals	3.467	2	0.177	0.009	0.998	0.981

M_smri_thick_cdk_cdacate_residuals	4.523	2	0.104	0.012	0.997	0.964
M_smri_thick_cdk_cdmdfr_residuals	6.392	2	0.041	0.015	0.994	0.940
M_smri_thick_cdk_cuneus_residuals	5.219	2	0.074	0.013	0.997	0.969
M_smri_thick_cdk_ehinal_residuals	7.556	2	0.023	0.017	0.992	0.916
M_smri_thick_cdk_fusiform_residuals	3.476	2	0.176	0.009	0.998	0.982
M_smri_thick_cdk_ifpl_residuals	4.105	2	0.128	0.011	0.998	0.976
M_smri_thick_cdk_ihcate_residuals	3.466	2	0.177	0.009	0.998	0.979
M_smri_thick_cdk_locc_residuals	4.139	2	0.126	0.011	0.998	0.978
M_smri_thick_cdk_lobfr_residuals	3.728	2	0.155	0.010	0.998	0.980
M_smri_thick_cdk_lingual_residuals	3.554	2	0.169	0.009	0.999	0.985
M_smri_thick_cdk_mobfr_residuals	5.073	2	0.079	0.013	0.996	0.962
M_smri_thick_cdk_parahpal_residuals	3.611	2	0.164	0.009	0.998	0.983
M_smri_thick_cdk_paracn_residuals	3.737	2	0.154	0.010	0.998	0.979
M_smri_thick_cdk_parsobis_residuals	3.406	2	0.182	0.009	0.999	0.984
M_smri_thick_cdk_pericc_residuals	5.031	2	0.081	0.013	0.997	0.964
M_smri_thick_cdk_precn_residuals	3.613	2	0.164	0.009	0.998	0.978
M_smri_thick_cdk_pc_residuals	3.550	2	0.169	0.009	0.998	0.982
M_smri_thick_cdk_rracate_residuals	4.254	2	0.119	0.011	0.997	0.971
M_smri_thick_cdk_rrmdfr_residuals	9.767	2	0.008	0.020	0.991	0.900
M_smri_thick_cdk_sufr_residuals	10.119	2	0.006	0.021	0.990	0.896
M_smri_thick_cdk_supl_residuals	5.907	2	0.052	0.014	0.995	0.951
M_smri_thick_cdk_sm_residuals	3.515	2	0.173	0.009	0.998	0.980
M_smri_thick_cdk_tmppole_residuals	8.294	2	0.016	0.018	0.991	0.908
M_smri_thick_cdk_trvtm_residuals	3.508	2	0.173	0.009	0.998	0.983
M_smri_thick_cdk_insula_residuals	8.330	2	0.016	0.018	0.993	0.925
M_smri_area_cdk_cdacate_residuals	5.145	2	0.076	0.013	0.997	0.971
M_smri_area_cdk_cdmdfr_residuals	6.877	2	0.032	0.016	0.997	0.965
M_smri_area_cdk_cuneus_residuals	6.604	2	0.037	0.016	0.997	0.968
M_smri_area_cdk_ihcate_residuals	3.904	2	0.142	0.010	0.999	0.989
M_smri_area_cdk_locc_residuals	6.726	2	0.035	0.016	0.998	0.980
M_smri_area_cdk_lobfr_residuals	3.512	2	0.173	0.009	0.999	0.992
M_smri_area_cdk_mobfr_residuals	5.466	2	0.065	0.014	0.998	0.983
M_smri_area_cdk_parahpal_residuals	6.304	2	0.043	0.015	0.997	0.968
M_smri_area_cdk_parsopc_residuals	3.483	2	0.175	0.009	0.999	0.989
M_smri_area_cdk_parsobis_residuals	3.432	2	0.180	0.009	0.999	0.994
M_smri_area_cdk_parstgris_residuals	3.531	2	0.171	0.009	0.999	0.991
M_smri_area_cdk_pericc_residuals	7.031	2	0.030	0.016	0.995	0.943
M_smri_area_cdk_postcn_residuals	5.816	2	0.055	0.014	0.998	0.982
M_smri_area_cdk_precn_residuals	6.489	2	0.039	0.016	0.998	0.980
M_smri_area_cdk_pc_residuals	6.713	2	0.035	0.016	0.998	0.976
M_smri_area_cdk_rracate_residuals	6.294	2	0.043	0.015	0.997	0.972
M_smri_area_cdk_rrmdfr_residuals	5.400	2	0.067	0.014	0.998	0.984
M_smri_area_cdk_sufr_residuals	6.727	2	0.035	0.016	0.998	0.978
M_smri_area_cdk_supl_residuals	3.867	2	0.145	0.010	0.999	0.987
M_smri_area_cdk_frppole_residuals	7.908	2	0.019	0.018	0.997	0.972
M_smri_area_cdk_tmppole_residuals	13.278	2	0.001	0.025	0.995	0.943
M_smri_area_cdk_insula_residuals	6.493	2	0.039	0.016	0.998	0.978

Table S23: Model fit statistics for mediation models (connectivity)

Variable	Chi-sq	df	pval	RMSEA	CFI	TLI
visual_network to visual_network	5.050	2	0.080053	0.014	0.996	0.959
cingulo_opercular_network to cingulo_opercular_network	7.164	2	0.027818	0.018	0.994	0.932
visual_network to ventral_attention_network	5.259	2	0.072111	0.014	0.995	0.949
sensorimotor_hand_network to visual_network	6.677	2	0.035483	0.017	0.993	0.924
auditory_network to visual_network	5.138	2	0.076609	0.014	0.996	0.954
cingulo_opercular_network to retrosplenial_temporal_network	5.464	2	0.065101	0.015	0.995	0.948
default_network to visual_network	4.940	2	0.084575	0.014	0.995	0.951
dorsal_attention_network to default_network	4.667	2	0.096954	0.013	0.996	0.960
retrosplenial_temporal_network to visual_network	9.219	2	0.009959	0.022	0.989	0.880
retrosplenial_temporal_network to salience_network	10.610	2	0.004967	0.024	0.985	0.839
dorsal_attention_network to salience_network	5.726	2	0.057103	0.015	0.994	0.933
retrosplenial_temporal_network to retrosplenial_temporal_network	4.959	2	0.083803	0.014	0.995	0.950
dorsal_attention_network to visual_network	4.793	2	0.09104	0.013	0.995	0.953
auditory_network to retrosplenial_temporal_network	5.091	2	0.078416	0.014	0.996	0.955
salience_network to ventral_attention_network	4.892	2	0.086635	0.014	0.995	0.952
sensorimotor_hand_network to sensorimotor_mouth_network	5.273	2	0.071626	0.014	0.996	0.958
default_network to default_network	4.762	2	0.092435	0.013	0.996	0.960
cingulo_parietal_network to visual_network	6.851	2	0.032525	0.018	0.991	0.907
retrosplenial_temporal_network to ventral_attention_network	4.950	2	0.084151	0.014	0.995	0.946
sensorimotor_hand_network to sensorimotor_hand_network	5.577	2	0.061506	0.015	0.995	0.949
fronto_parietal_network to retrosplenial_temporal_network	6.792	2	0.033511	0.018	0.991	0.903
retrosplenial_temporal_network to sensorimotor_hand_network	7.336	2	0.025531	0.019	0.993	0.922
cingulo_opercular_network to default_network	5.525	2	0.063129	0.015	0.995	0.952
salience_network to visual_network	4.814	2	0.090096	0.013	0.995	0.947
fronto_parietal_network to sensorimotor_hand_network	6.651	2	0.035951	0.017	0.993	0.928
cingulo_opercular_network to visual_network	5.600	2	0.060822	0.015	0.994	0.932
default_network to ventral_attention_network	5.185	2	0.074823	0.014	0.995	0.949
dorsal_attention_network to retrosplenial_temporal_network	7.015	2	0.02997	0.018	0.991	0.909
cingulo_parietal_network to retrosplenial_temporal_network	9.032	2	0.010934	0.021	0.988	0.874
cingulo_opercular_network to sensorimotor_hand_network	10.031	2	0.006633	0.023	0.988	0.870
default_network to salience_network	13.582	2	0.001124	0.027	0.978	0.773
fronto_parietal_network to fronto_parietal_network	5.042	2	0.080398	0.014	0.995	0.948
fronto_parietal_network to visual_network	6.167	2	0.045791	0.016	0.992	0.915
default_network to sensorimotor_hand_network	10.388	2	0.00555	0.023	0.987	0.861
auditory_network to dorsal_attention_network	4.848	2	0.088565	0.014	0.995	0.946
sensorimotor_hand_network to ventral_attention_network	4.828	2	0.089443	0.013	0.995	0.945
dorsal_attention_network to fronto_parietal_network	4.814	2	0.090087	0.013	0.995	0.948
cingulo_opercular_network to sensorimotor_mouth_network	5.910	2	0.052069	0.016	0.993	0.921
salience_network to sensorimotor_hand_network	4.873	2	0.087464	0.014	0.995	0.953
cingulo_parietal_network to cingulo_opercular_network	9.415	2	0.009027	0.022	0.987	0.865
cingulo_opercular_network to fronto_parietal_network	4.748	2	0.093124	0.013	0.995	0.948
cingulo_opercular_network to dorsal_attention_network	5.260	2	0.072065	0.014	0.994	0.937

salience_network to salience_network	4.945	2	0.084394	0.014	0.994	0.941
dorsal_attention_network to ventral_attention_network	4.951	2	0.084118	0.014	0.995	0.948
auditory_network to cingulo_opercular_network	5.911	2	0.052051	0.016	0.994	0.937
auditory_network to sensorimotor_mouth_network	5.263	2	0.071973	0.014	0.995	0.946

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