

Supplementary Table 1. Focused haemodynamic family across SES/medication and follow-up layers

Detailed results for the focused haemodynamic family used to judge the robustness of the main manuscript headline.

Focused haemodynamic family

Model block	Association	n	Estimate (SE)	p	FDR
SES/medication cross single	ICA CBF → fluid intelligence	3,238	0.005 (0.002)	0.0159	0.0423
SES/medication cross single	ICA ATT → fluid intelligence	3,238	0.144 (0.171)	0.399	0.455
SES/medication cross single	GM-WM CBF gap → fluid intelligence	3,238	0.014 (0.005)	0.00388	0.0155
SES/medication cross single	GM-WM ATT gap → fluid intelligence	3,238	-0.229 (0.346)	0.509	0.509
SES/medication cross single	ICA CBF → reaction time	3,267	-0.290 (0.142)	0.041	0.0819
SES/medication cross single	ICA ATT → reaction time	3,267	61.250 (11.880)	2.68e-07	2.14e-06
SES/medication cross single	GM-WM CBF gap → reaction time	3,267	-0.517 (0.335)	0.122	0.163
SES/medication cross single	GM-WM ATT gap → reaction time	3,267	46.912 (24.159)	0.0522	0.0836
SES/medication cross joint	ICA CBF → fluid intelligence	3,238	0.001 (0.003)	0.756	0.756
SES/medication cross joint	ICA ATT → fluid intelligence	3,238	0.425 (0.195)	0.0291	0.117
SES/medication cross joint	GM-WM CBF gap → fluid intelligence	3,238	0.016 (0.008)	0.0446	0.119
SES/medication cross joint	GM-WM ATT gap → fluid intelligence	3,238	-0.668 (0.411)	0.104	0.209
SES/medication cross joint	ICA CBF → reaction time	3,267	0.096 (0.237)	0.687	0.756
SES/medication cross joint	ICA ATT → reaction time	3,267	59.960 (13.570)	1.03e-05	8.21e-05
SES/medication cross joint	GM-WM CBF gap → reaction time	3,267	-0.314 (0.545)	0.564	0.756
SES/medication cross joint	GM-WM ATT gap → reaction time	3,267	10.315 (28.569)	0.718	0.756
SES/medication follow-up single	ICA CBF → fluid intelligence	946	0.001 (0.003)	0.688	0.709

Model block	Association	n	Estimate (SE)	p	FDR
SES/medication follow-up single	ICA ATT → fluid intelligence	946	-0.207 (0.284)	0.466	0.709
SES/medication follow-up single	GM-WM CBF gap → fluid intelligence	946	0.010 (0.008)	0.216	0.432
SES/medication follow-up single	GM-WM ATT gap → fluid intelligence	946	-0.244 (0.560)	0.663	0.709
SES/medication follow-up single	ICA CBF → reaction time	3,261	-0.179 (0.125)	0.153	0.408
SES/medication follow-up single	ICA ATT → reaction time	3,261	47.573 (10.516)	6.3e-06	5.04e-05
SES/medication follow-up single	GM-WM CBF gap → reaction time	3,261	-0.110 (0.295)	0.709	0.709
SES/medication follow-up single	GM-WM ATT gap → reaction time	3,261	43.233 (21.285)	0.0423	0.169
SES/medication follow-up joint	ICA CBF → fluid intelligence	946	-0.006 (0.006)	0.256	0.682
SES/medication follow-up joint	ICA ATT → fluid intelligence	946	-0.162 (0.329)	0.623	0.85
SES/medication follow-up joint	GM-WM CBF gap → fluid intelligence	946	0.021 (0.013)	0.105	0.419
SES/medication follow-up joint	GM-WM ATT gap → fluid intelligence	946	-0.496 (0.654)	0.448	0.85
SES/medication follow-up joint	ICA CBF → reaction time	3,261	-0.025 (0.209)	0.903	0.903
SES/medication follow-up joint	ICA ATT → reaction time	3,261	47.534 (11.996)	7.58e-05	0.000606
SES/medication follow-up joint	GM-WM CBF gap → reaction time	3,261	0.227 (0.481)	0.637	0.85
SES/medication follow-up joint	GM-WM ATT gap → reaction time	3,261	6.124 (25.180)	0.808	0.903

FDR values correspond to the focused 8-test family within each model block.