

Table 2. Summary of relationship between participant motion and volumetric estimates. Rows marked with an * indicate volume estimates with $p < 0.05$ when using scans qualitatively free from motion artifact. Rows marked with † indicate brain regions with $p < 0.05$ when using scans that have not undergone QA, but $p > 0.05$ following visual QA assessment

Structure	Visual QA applied to MRI scans		No QA applied (All scans included)		
	Effect Size (mm ³ per mm motion)	p value	Effect Size (mm ³ per mm motion)	p value	
Left Lateral Ventricle	92.57	0.68	-25.76	0.84	
Left Inferior Lateral Ventricle	-5.94	0.54	-7.78	0.22	
Left Cerebellum White Matter	28.89	0.78	101.85	0.14	
Left Cerebellum Cortex	-200.77	0.48	-307.77	0.09	†
Left Thalamus	14.07	0.69	22.88	0.31	
Left Caudate	-30.64	0.23	-37.00	0.03	†
Left Putamen	-51.79	0.15	-52.05	0.03	
Left Pallidum	-11.84	0.36	-6.38	0.46	
3rd Ventricle	20.31	0.17	0.50	0.96	
4th Ventricle	7.89	0.80	-58.99	0.00	†
Brain Stem	-141.71	0.15	-70.99	0.24	
Left Hippocampus	11.38	0.60	-12.06	0.43	
Left Amygdala	-29.34	0.01	-29.72	4.76E-05	*
CSF	2.61	0.83	1.49	0.85	
Left Accumbens	-7.66	0.23	-10.14	0.02	†
Left Ventral Diencephalon	-11.69	0.57	-11.49	0.37	
Left Vessel	-3.29	0.12	-4.13	4.18E-03	†
Left Choroid Plexus	7.08	0.57	2.88	0.72	
Right Lateral Ventricle	72.75	0.71	-83.21	0.49	
Right Inferior Lateral Ventricle	-2.42	0.81	-3.01	0.64	
Right Cerebellum White Matter	-123.82	0.23	-158.52	0.02	†
Right Cerebellum Cortex	-270.36	0.36	-630.80	1.20E-03	†
Right Thalamus	-54.56	0.08	-14.15	0.48	
Right Caudate	-38.15	0.13	-55.82	1.37E-03	†
Right Putamen	-32.56	0.31	-44.89	0.04	†
Right Pallidum	0.59	0.96	-5.98	0.39	
Right Hippocampus	9.62	0.67	-1.03	0.94	
Right Amygdala	-27.11	0.03	-26.59	1.17E-03	*
Right Accumbens	-9.04	0.10	-7.54	0.04	†
Right Ventral Diencephalon	7.77	0.69	8.79	0.48	
Right Vessel	0.80	0.71	0.05	0.97	
Right Choroid Plexus	30.68	0.06	13.75	0.21	
5th Ventricle	-0.18	0.47	-0.07	0.66	
White matter hypointensities	171.06	1.92E-05	244.60	2.94E-14	*
Non White matter hypointensities	1.98	6.52E-05	1.50	1.52E-04	*
Optic Chiasm	-3.36	0.28	-3.48	0.09	
Posterior Corpus Callosum	-7.80	0.35	-5.01	0.33	
Mid Posterior Corpus Callosum	0.04	0.99	-0.10	0.97	
Central Corpus Callosum	-5.36	0.29	-0.47	0.88	
Mid Anterior Corpus Callosum	-5.99	0.34	1.76	0.66	
Anterior Corpus Callosum	-3.36	0.68	0.30	0.95	
Brain Seg Volume	-11628.88	1.30E-04	-18251.92	3.65E-15	*
Cortex Volume	-8935.39	2.95E-06	-12320.88	1.17E-17	*
Cortical White Matter Volume	-2165.23	0.23	-4593.90	2.37E-04	†
Sub Cortical Gray Volume	-241.56	0.22	-252.61	0.05	†
Total Gray Volume	-9617.51	6.15E-06	-13465.45	7.05E-18	*
SupraTentorial Volume	-11189.91	1.32E-04	-17289.26	2.14E-14	*