Supplementary 4: P-value Correction

Introduction

During multivariate regression testing the significance of each variables inclusion in the model results in the accumulation of family-wise error that must be corrected for. The table below displays both Bonferroni and Hochberg corrections adjusted for both within-experiment hypotheses and for the regression analyses as a whole.

Table 1: P-Value Correction

pValue Rank All	pValue Rank Experiment Wise	Experiment	Group	Variable	p-value	Bonferroni Correction All	Bonferroni Correction Experiment Wise	Hochberg's Correction All	Hochberg's Correction Experiment Wise
7	1	Multivariate Regression	Explained	T0_NegExpectation	1.55E-07	0.000	0.000	1	1
15	2	Multivariate Regression	Explained	T0_PHQ13_Binned	0.00190915	0.084	0.021	1	1
19	3	Multivariate Regression	Explained	Gender	0.00527045	0.232	0.058	0	1
20	4	Multivariate Regression	Explained	T0_SF12_PF	0.01438243	0.633	0.158	0	0
22	5	Multivariate Regression	Explained	T0_PsychAttribution	0.04634285	2.039	0.510	0	0
24	6	Multivariate Regression	Explained	AgeBins	0.06896355	3.034	0.759	0	0
30	7	Multivariate Regression	Explained	T0_IllnessWorry	0.25285073	11.125	2.781	0	0
31	8	Multivariate Regression	Explained	T0_IncapacityBenefitorDLA	0.28541792	12.558	3.140	0	0
33	9	Multivariate Regression	Explained	T0_HADS_Binned	0.44538103	19.597	4.899	0	0
36	10	Multivariate Regression	Explained	T0_SIMD04_bin	0.58682425	25.820	6.455	0	0
39	11	Multivariate Regression	Explained	Diagnosis	0.69835582	30.728	7.682	0	0
1	1	Univariate Regression	Explained	T0_SF12_PF	0	0.000	0.000	1	1
2	2	Univariate Regression	Explained	T0_NegExpectation	1.60E-14	0.000	0.000	1	1
3	3	Univariate Regression	Explained	T0_IncapacityBenefitorDLA	4.71E-11	0.000	0.000	1	1
4	4	Univariate Regression	Explained	T0_PHQ13_Binned	1.30E-08	0.000	0.000	1	1
8	5	Univariate Regression	Explained	AgeBins	2.66E-07	0.000	0.000	1	1
9	6	Univariate Regression	Explained	T0_HADS_Binned	9.16E-06	0.000	0.000	1	1
17	7	Univariate Regression	Explained	Gender	0.00245642	0.108	0.027	1	1
21	8	Univariate Regression	Explained	T0_IllnessWorry	0.04590497	2.020	0.505	0	0
26	9	Univariate Regression	Explained	T0_SIMD04_bin	0.09574457	4.213	1.053	0	0
28	10	Univariate Regression	Explained	T0_PsychAttribution	0.20106059	8.847	2.212	0	0
42	11	Univariate Regression	Explained	Diagnosis	0.71593646	31.501	7.875	0	0
11	1	Multivariate Regression	NotExplained	T0_PsychAttribution	3.60E-05	0.002	0.000	1	1
12	2	Multivariate Regression	NotExplained	T0_NegExpectation	0.00014394	0.006	0.002	1	1
14	3	Multivariate Regression	NotExplained	T0_IncapacityBenefitorDLA	0.0014905	0.066	0.016	1	1
23	4	Multivariate Regression	NotExplained	T0_HADS_Binned	0.04650704	2.046	0.512	0	0
27	5	Multivariate Regression	NotExplained	AgeBins	0.12651169	5.567	1.392	0	0
35	6	Multivariate Regression	NotExplained	T0_IllnessWorry	0.54169319	23.835	5.959	0	0
37	7	Multivariate Regression	NotExplained	T0_PHQ13_Binned	0.62395962	27.454	6.864	0	0
38	8	Multivariate Regression	NotExplained	Diagnosis	0.67532789	29.714	7.429	0	0
40	9	Multivariate Regression	NotExplained	T0_SIMD04_bin	0.70578274	31.054	7.764	0	0
43	10	Multivariate Regression	NotExplained	Gender	0.8749468	38.498	9.624	0	0
44	11	Multivariate Regression	NotExplained	T0_SF12_PF	0.92759414	40.814	10.204	0	0
5	1	Univariate Regression	NotExplained	T0_IncapacityBenefitorDLA	1.36E-08	0.000	0.000	1	1
6	2	Univariate Regression	NotExplained	T0_NegExpectation	5.54E-08	0.000	0.000	1	1
10	3	Univariate Regression	NotExplained	T0_SF12_PF	1.71E-05	0.001	0.000	1	1
13	4	Univariate Regression	NotExplained	T0_PsychAttribution	0.00098972	0.044	0.011	1	1
16	5	Univariate Regression	NotExplained	T0_HADS_Binned	0.00206801	0.091	0.023	1	1
18	6	Univariate Regression	NotExplained	AgeBins	0.00295138	0.130	0.032	1	1
25	7	Univariate Regression	NotExplained	T0_PHQ13_Binned	0.0732326	3.222	0.806	0	0
29	8	Univariate Regression	NotExplained	T0_SIMD04_bin	0.2334963	10.274	2.568	0	0
32	9	Univariate Regression	NotExplained	Diagnosis	0.29012293	12.765	3.191	0	0
34	10	Univariate Regression	NotExplained	T0_IllnessWorry	0.44987444	19.794	4.949	0	0
41	11	Univariate Regression	NotExplained	Gender	0.71412263	31.421	7.855	0	0

Parameters	Value
No. of Variables Experiment Wise:	11
No. of Variables Total:	44
Alpha Value:	0.05
False-Discovery Rate	0.1