

Coping data analysis. t-test and marginal longitudinal models

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All the analyses in this report are based on 25 multiple imputation, unless otherwise mentioned.

1. t-test / ANCOVA

1.1 ANOVA of coping strategy

Effect of mindfulness intervention on the change in coping strategy from baseline to 3 months. No significant results were obtained.

Table 1: ANOVA of Catastrophizing

	Estimate	Std.err	z.val	p.val
(Intercept)	-2.938	1.334	-2.202	0.028
trt	0.507	1.888	0.269	0.788

Table 2: ANOVA of Reinterpreting Pain Sensation

	Estimate	Std.err	z.val	p.val
(Intercept)	-0.148	0.609	-0.243	0.808
trt	1.211	0.890	1.361	0.173

2. ANCOVA of 3-month IBSS change and interaction with coping strategy (at baseline)

Model. (IBSS.3 - IBSS.1) ~ trt * (catastrophizing.1 + rps.1)

Table 3: ANCOVA of Catastrophizing and Reinterpreting Pain Sensation

	Estimate	Std.err	z.val	p.val
(Intercept)	-38.191	47.176	-0.810	0.418
trt	-74.205	75.643	-0.981	0.327
catastrophizing.1	-1.701	2.941	-0.578	0.563
rps.1	0.485	7.853	0.062	0.951
trt:catastrophizing.1	0.760	3.972	0.191	0.848
trt:rps.1	3.070	10.475	0.293	0.769

Model. (IBSS.3 - IBSS.1) ~ trt * (each coping strategy category)

Table 4: ANCOVA of Catastrophizing

	Estimate	Std.err	z.val	p.val
(Intercept)	-37.138	40.642	-0.914	0.361
trt	-53.570	63.363	-0.845	0.398
catastrophizing.1	-1.583	2.694	-0.588	0.557
trt:catastrophizing.1	0.583	3.820	0.153	0.879

Table 5: ANCOVA of Reinterpreting Pain Sensation

	Estimate	Std.err	z.val	p.val
(Intercept)	-45.120	43.539	-1.036	0.300
trt	-82.515	61.283	-1.346	0.178
rps.1	-2.686	7.300	-0.368	0.713
trt:rps.1	6.327	9.765	0.648	0.517

3. marginal models (GEE)

Model. IBSS ~ trt * month * coping

The Marginal models were fitted with the full-interaction design.

All but the Catastrophizing were non-significant.

Table 6: Marginal model of IBSS adjusted for coping strategy summary scores

	Estimate	Std.err	z.val	p.val
(Intercept)	208.584	28.629	7.286	0.000
trt	-50.487	41.650	-1.212	0.225
month	-3.193	6.734	-0.474	0.635
catastrophizing	7.204	1.511	4.766	0.000
rps	-7.159	4.575	-1.565	0.118
trt:month	-4.819	8.527	-0.565	0.572
trt:catastrophizing	-0.202	1.953	-0.104	0.918
trt:rps	2.302	5.966	0.386	0.700
month:catastrophizing	-0.271	0.401	-0.677	0.499
month:rps	0.704	0.949	0.742	0.458
trt:month:catastrophizing	0.254	0.446	0.571	0.568
trt:month:rps	-0.015	1.102	-0.013	0.989

Second model - Some interactions removed

Model. IBSS ~ trt * month + coping

Table 7: Marginal model of IBSS adjusted for coping strategy summary scores

	Estimate	Std.err	z.val	p.val
(Intercept)	196.540	20.238	9.712	0.000
trt	-39.172	17.001	-2.304	0.021
month	-2.444	2.572	-0.950	0.342
catastrophizing	6.450	0.852	7.574	0.000
rps	-3.472	2.414	-1.438	0.150
trt:month	-1.384	3.133	-0.442	0.659

Controlling for coping strategy, treatment effects are negative on IBSS score, which is congruent to the previous result. Controlling for time and treatment, people with higher Catastrophizing scores will have higher IBSS.