

Effects of Expectations on Negative Affect, Perceived
Cognitive Effort, and Pain

NCT05425563

Statistical Analysis Plan

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Statistical analysis plan

Note, Independent measures are cue levels (high vs. low cue) and stimulus intensity (high vs. med vs. low intensity). Dependent measures are expectation ratings and outcome ratings.

Our main statistical analysis focuses on participants' outcome ratings following high vs. low cues for each task (somatic pain, vicarious pain, cognitive effort).

We also include analyses that will inform us with the validity of the experimental design: examining participant's expectation ratings as a function of cue and examining participants' outcome ratings as a function of stimulus intensity.

Outcome ratings as a function of cue

We will report the t value of the cue effect on outcome ratings, using a multilevel model, with a statistical threshold of alpha = 0.05. We run statistical tests for each of the three tasks of somatic pain, vicarious pain, and cognitive effort.

Outcome ratings as a function of cue

We will report the t value of the stimulus intensity effect on outcome ratings, using a multilevel model, with a statistical threshold of alpha = 0.05. We run statistical tests for each of the three tasks of somatic pain, vicarious pain, and cognitive effort.

Expectation ratings as a function of cue

We will report the mean and standard deviation across participants' test with a paired t test, with a statistical threshold of alpha = 0.05. We run tests for each of the three tasks of somatic pain, vicarious pain, and cognitive effort.