

**Using the Musical Track from Gaze-Contingent Music Reward  
Therapy as a Treatment Booster in Stressful Situations Among  
Highly Socially Anxious Participants**

**Unique Protocol ID: TAUgcMRTbooster**

**November 1<sup>st</sup> 2021**

## **Statistical Analysis Plan**

### **Between-group differences at baseline**

To verify there is no difference between the two groups in baseline characteristics such as age, years of education, dwell time on threat, or social anxiety symptoms, independent-samples t-test will be conducted. To verify there is no difference in gender distribution between groups, a Chi-square test will be conducted.

### **Replication of GC-MRT efficacy**

To confirm that target engagement will have occurred (i.e., dwell time on threat will have decreased from pre- to post-treatment), two 2-way Analyses of Variance (ANOVAs) will be conducted on the percentage of dwell-time on threats with time as a within-subject factor (ANOVA 1: pre- or post-treatment measurement, ANOVA 2: Session 1, 2, 3, or 4) and group (experimental or control) as a between-subject factor.

To examine whether social anxiety symptoms will have decreased from pre- to post-treatment, a 2-way ANOVA will be conducted on the Leibowitz Social Anxiety Scale (LSAS) scores with time (pre- or post-treatment) as a within-subject factor and group (experimental or control) as a between-subject factor.

### **The effect of active booster vs. control booster on stress levels during the speech task**

To examine whether reported stress levels will have changed differently in the experimental group compared to the control group throughout different phases of the speech task, a 2-way ANOVA will be conducted on the Visual Analogue Scale - Anxiety (VAS-A) scores with group (experimental or control) as a between-subject factor (experimental, control), and the measurement time as a within-subject factor (1 - baseline, 2 - after task introduction, 3 - after listening to the musical track, 4 - after preparation to the speech and before the speech begins, 5 - after the speech task is over).

Specifically, we hypothesize that the difference between the groups according to which the experimental group will report lower state anxiety levels compared to the control group will emerge between time points 3 and 4 and will sustain until time point 5. To confirm this hypothesis, simple effect analyses will be conducted on the difference between the groups in time points 3, 4, and 5. It is expected that simple effects for time points 4 and 5 will be significant, and the results of these contrasts are hereby declared as a-priori expected regardless of the significance of the above-described omnibus ANOVA.

### **The effect of active booster vs. control booster on performance quality during the speech task**

To examine whether there will be any difference in the quality of performance between the two groups during the speech task, independent-samples t-tests comparing the judges' scores in Public Speaking Performance Scale (PSPS) will be conducted on the scale's total score, the specific scale, and the global scale.