

# Request #: 634 - HDFS - Publication/Article

## Examining Accelerated Resolution Therapy

Daniel Sanders [A02285607] - Doc Student (w/Dave Robinson)

November 16, 2022

### Background

Accelerated Resolution Therapy (ART) is a relatively new evidenced-based therapy for the treatment of post-traumatic stress disorder (PTSD). Other gold-standard PTSD treatments (Exposure Therapy, EMDR, etc.) typically take 8 to 16 sessions to treat PTSD and can require several hours of “home work” between therapy sessions. ART typically takes 1-5 sessions to treat PTSD and requires no homework. We seek to better understand how this therapy works.

### Sample

We plan to have participants (20-70?) with probable simple (single incident) PTSD come to the SCCE to receive 1-2 sessions of ART. During the intervention, we will collect data using three types of sensors: 1. an fNIRS cap to measure activation in the prefrontal cortex, 2. an EKG to measure heart rate, 3. a skin conductance sensor. They will also share a brief version of their trauma story before and after the intervention while wearing these same sensors.

We will also administer a surveys at four time points (1. before receiving therapy, 2. a week after therapy, 3. a month after therapy, 4. three months after therapy). The surveys will measure their PTSD, depression, anxiety, panic, and somatic symptoms. The surveys will also measure aspects of their relationship attachment and interoceptive awareness. Finally the surveys will ask about their expectations for the therapy (before therapy survey) and their experience/perspective on how the therapy was helpful (after therapy surveys).

### Hypothesis

Ultimately we want to increase our understanding of the physiological changes that occur during an ART intervention so we can better understand why and how the therapy can decrease PTSD symptoms relatively quickly.

We hypothesize that as the intervention progresses, we will see a greater variability in heart rate and skin conductance compared to earlier portions of the session. We also anticipate a shift toward a more neurotypical activation pattern across the session (some areas moving from under activated to moderately activated and some moving from over activated to moderately activated).

We also anticipate decreased heart rate and skin conductance when sharing their trauma story after receiving the therapy, compared when they shared it before the treatment.

We also hypothesize that decreases in PTSD symptoms will correlate with increases in interoceptive awareness and secure relationship attachment scores.

We hypothesize that interoceptive awareness will predict PTSD symptom reduction (those with moderate to low awareness might be helped the most by the treatment, while those who are extremely aware may not benefit as much and those with extremely low awareness may not be able to adequately engage with the treatment).

We also hope to find patterns in which components of the ART intervention that participants report as being most helpful and patterns in which components they consider unhelpful or irrelevant.

### **Progress**

In addition to being trained to provide ART, we have been reviewing literature and designing the study.

### **Request**

We would like to consult with you on the design and potential analysis strategies for the project (especially identifying specific statistical analyses). We would like help completing a power analysis to determine needed sample size to answer our questions.

Some of our research questions depend on two data points (before and after therapy) while others depend on many data points (such as physiological data collected during many stages of the intervention or the same questions asked across four surveys). There is also considerable variability in how long each participant engages in the intervention. Some may complete therapy in one 60-minute visit. Others may complete the therapy in two 90-minute visits. Some participants will also spend considerably more time on one stage of the intervention than others according to their in-the-moment needs.

### **Timeline**

We would ideally like to submit the IRB within the next month and start collecting data by February.

Please feel free to contact Dan with any additional questions that would help you prepare for the visit by emailing [daniel.sanders@usu.edu](mailto:daniel.sanders@usu.edu)