



# Development of a Brief Web-Based Intervention: TI Psychoeducation



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## Introduction

- Humans respond to threats in various ways, depending on individual and situational factors.
- These responses are known as “fight-flight-freeze” responses.
- Tonic immobility is a type of “freeze” response characterized by extreme fear, immobility, and dissociation (Lang et al., 1997).
- Tonic immobility (TI) can be an adaptive response when an individual doesn’t have a high chance of escape (Barlow, 2002).
- However, tonic immobility in response to a traumatic event can lead to increased guilt, shame, and posttraumatic stress symptoms (Bovin et al., 2014; Marx et al., 2008).
- It’s hypothesized that psychoeducation and skills for addressing common misconceptions about tonic immobility may alleviate these symptoms.

## Method

### Participants & Procedures

- Participants (N = 6) were recruited from the SONA subject pool based on prior TI exposure and elevated PTSD symptoms.
- Participants were all female and 18+ ( $M = 18.50$ ;  $SD = 0.84$ )
- Participants completed informed consent, pre and post surveys, and the TIP intervention.

### Measures

- Treatment acceptability questionnaire (Short et al., 2017) was used to assess treatment acceptability and engagement
- State Shame and Guilt Scale – 8 (SSGS-8; Calavera et al., 2017) was modified to assess guilt and shame related to TI experiences
- Tonic Immobility Questionnaire (TIQ; Taylor et al., 2007) was used to assess TI
- Posttraumatic Stress Checklist (PCL-5; Weathers et al., 2013) was used to assess PTSD symptoms

### Intervention

- TIP is a 45-minute web-based intervention that addresses emotions and maladaptive conditions that are associated with tonic immobility.
- Throughout the intervention, practice exercise, vignettes, and self-ratings scaled were incorporated to engage the participants.
- Participant testimonial: “I liked how the videos showed the antelope first, it helped me understand that the reaction was completely natural and out of my control, because even animals do it.”

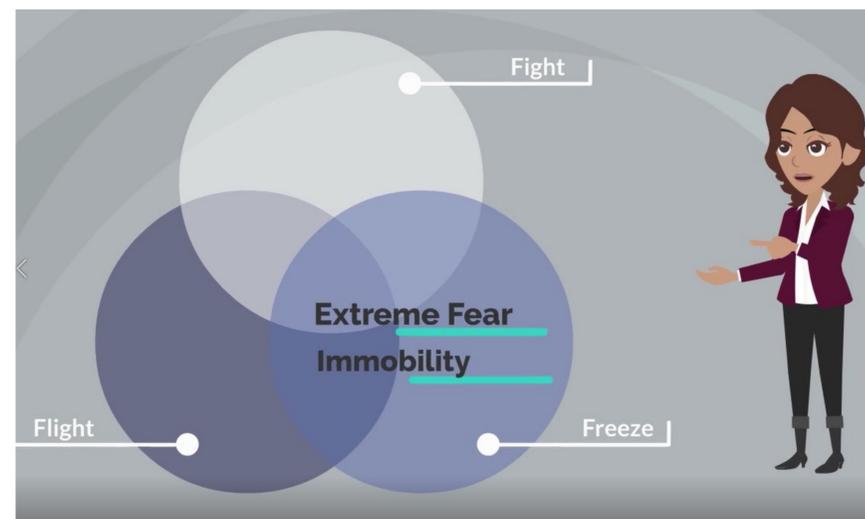
## Results

### Acceptability

- 100% of participants reported the presentation was easy to understand and follow.
- 100% of participants reported they’re at least “somewhat likely” to recommend the presentation to a friend.
- 66.7% of participants reported they’re “very likely” to use the information and techniques learned, and 33.3% reported they’re “somewhat likely”.
- 83.3% of participants found the information in the presentation applicable to their daily life, while 16.7% responded “somewhat applicable”.

### Outcomes

- Guilt
  - On average, participants rated guilt 23% lower at post compared to pre-intervention.
  - Results from a paired samples t-test ( $t = 3.40$ ,  $d = 1.39$ ,  $p = .019$ ), showed that this reduction was statistically significant.
- Shame
  - On average, participants rated shame 21% lower at post compared to pre-intervention.
  - However, t-test results ( $t = 1.95$ ,  $d = 0.80$ ,  $p = .109$ ) indicated that this reduction was not statistically significant.

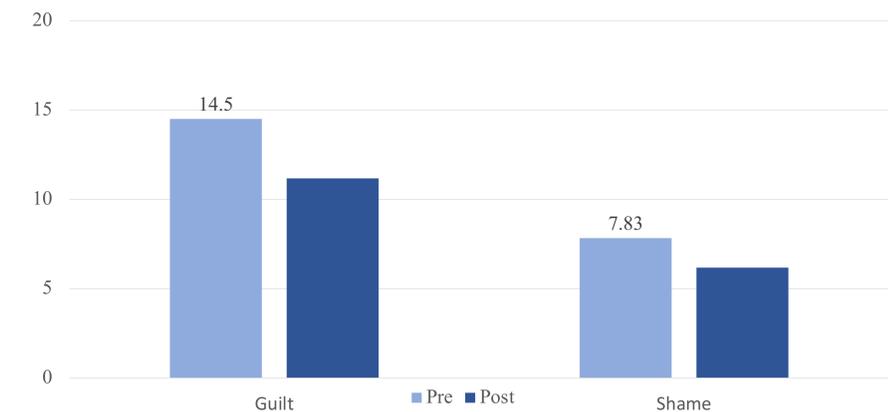


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## Results

Figure 1. Pre to Post Guilt and Shame Ratings



## Discussion

- Results indicate that the TIP intervention is highly acceptable and promising in reducing trauma-related negative emotions.
- The small student sample limits generalizability and statistical significance.
- The lack of a control condition means that the study was vulnerable to potential confounds.
- Participant feedback was used to further refine the intervention.
- Future research is in progress to examine the effects of the refined TIP intervention compared to an active control condition in a larger community sample.

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