



## Yoga Nidra as an Adjunctive Therapy for Post-Traumatic Stress Disorder: A Feasibility Study

Conducted at Walter Reed Army Hospital in conjunction with funding from the Samuelli Institute. Richard Miller developed the protocol of Yoga Nidra that was used in the study.

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### Background

Yoga Nidra is an ancient form of meditative inquiry used to reduce physical, emotional and mental suffering. The approach fosters deep relaxation, and is hypothesized to arouse the parasympathetic nervous system (relaxation response) through body sensing, deep breathing and other techniques.

### Purpose

To conduct a pilot/feasibility study of yoga as an adjunctive therapy for the treatment of symptoms associated with posttraumatic stress disorder (PTSD) in a cohort of military personnel at the Walter Reed Army Medical center (WRAMC) in Washington, DC.

### Hypothesis

Will a manualized Yoga Nidra intervention reduce symptoms associated with PTSD?

### Study Setup

To test the feasibility of Yoga Nidra for the treatment of symptoms associated with Post Traumatic Stress Disorder (PTSD), a cohort of 7 active duty military personnel who scored above 40 on the PTSD Checklist (PCL) participated in this 9-week study. Participants attended 18 classes and practiced Yoga Nidra in class and at home using a guided program on CD disc.

### Objectives

- Determine the challenges of recruitment of this adjunctive therapy

- Collect outcome and health status data on military personnel, including rates of compliance with this intervention; and
- Assess the feasibility of using Yoga Nidra in a larger clinical trail with an active duty population

### Study Design

- Prospective Outcomes, Feasibility Study
  - > A single cohort (n=7)
- Duration: 9 weeks
- Dosage (Yoga Classes): 18 classes
  - > Class Length: 75-90 minutes
- Dosage (Home Practice): 41 days
  - > Subjects provided with 3 CD discs

### Subjects

Inclusion Criteria:

- Active Duty
- At least 18 years old
- Minimum score of 40 on the Post Traumatic Stress Disorder Checklist (PCL)

### Cohort Demographics

- 5 males, 2 females
- 2 Black, 2 Hispanic, 2 White, 1 Pacific Islander
- Age Range: 24-53 years old
- Military Status: 6 enlisted, 1 officer

### Methods

Participants attended up to 18 instructor led classes. In addition, subjects practiced Yoga Nidra at home, for up to 41 days, while listening to a narrated Yoga Nidra program on audio CD. Since this was primarily a prospective outcomes feasibility study, there was no control group. All study participants continued to

receive their usual and customary care for symptoms associated with PTSD.

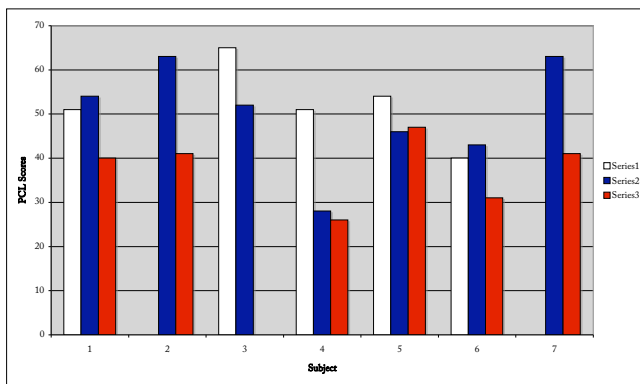
### Class Format

All subjects attended classes together. The classes built on the skill-set gradually, with close monitoring

### Outcome Measures

Measurements	Baseline	Midpoint	Endpoint
PTSC Checklist – Military Version (PCL-M)*	*	*	*
Compliance & Adherence to Protocol Measures	*	*	*
SF-36v2 Health Survey: Your Health & Well-Being	*	*	*
Patient Health Questionnaire	*	*	*
PD-HAT Trauma Questions	*	*	*
State Trait Anxiety Inventory – Trait Version	*	*	*
Fear of Loss of Vigilance Questionnaire	*	*	*
Expectations of Treatment Efficacy	*	*	*
Multidimensional health Locus of Control	*	*	*
Numeric Rating Scale for Pain	*	*	*

### PTSD Checklist Scores



### Results

PCL scores were collected at baseline, the midpoint and end of the study. In this pilot/feasibility study, sample size was insufficient to conduct inferential analyses. However, there was a trend toward decreasing PTSD symptomatology, as measured by the PCL, from baseline to the midpoint and endpoint assessments as reflected in the chart below.

- Overall Class Compliance: 67%
- Overall Home Practice Compliance: 43%
- Dropout Rate: 14%
- Challenges: Recruitment, Single Cohort Aspect, and Time Commitment

### Participant Feedback:

The following anecdotal comments, by study participants, support the improvement in PCL scores.

of each subject in determining the overall pace. Concepts and exercises were repeated, with variations, in order to develop subjects' comfort and proficiency.

*'When I come back to the practice my thoughts become quiet...it's empowering knowing I can change the way I feel and my mood.'*

*'The Inner Resource calmed me down and brought peace.'*

*'The classes are calming and I always have a really good day after the sessions.'*

*'It's easier to get to sleep now...and I sleep longer'*

*'I'm experience life... not just living it.'*

*(At the conclusion of the class) '...I didn't want it to end.'*

*'I feel more accepting of situations in my life that I cannot control.'*

### Conclusions<sup>1</sup>

- A randomized controlled clinical trial may be feasible for soldiers and veterans with significant symptoms of PTSD.
- Yoga Nidra may be a beneficial and acceptable treatment approach for soldiers experiencing significant symptoms of PTSD.

<sup>1</sup> As a result of these findings, Walter Reed Health Deployment Clinical Center has integrated Yoga Nidra protocol (now called *'Integrative Restoration, or iRest'*) into its treatment program for soldiers rotating through the Clinical Center. Soldiers receive twelve *iRest* sessions during their 3-week rotation through the clinic. In addition, interest is now present to fund a second, control group study using *iRest* with active duty soldiers with PTSD.