

An Evaluation of the Wave Academy Approach to Reducing Post-Traumatic Stress in Veterans

Overview

Aquatic Bodywork Therapy (ABT) couples warmth, buoyancy and fluid movements with water-borne massage to help clients heal from physical, mental, emotional and other traumas and medical conditions. In Wave Academy's treatment modality, the recipient is immersed in 96-degree water, in which a licensed Aquatic Bodywork therapist supports and gently guides him/her through graceful, fluid movements while applying pressure to specific points on the body and lightly massaging muscles. This application thoroughly stretches, expands and supports the spine and body while promoting a sense of peace and relaxation so complete that the recipient tends to "surrender" and release tensions that enable the body and mind to move beyond the limitations that gravity of fear would otherwise impose. This, in turn, is designed to lead to the reduction in Post-Traumatic Stress (PTS) symptoms such as sleep disruption, anxiety and depression.

There is little empirical evidence on ABT to quantifiably demonstrate the healing powers of this Complementary Alternative Medicine modality. In 2013, Wave Academy set out to evaluate its ABT program to explore how it could measurably reduce the often-crippling symptoms affecting clinically diagnosed veterans with PTS and contribute valuable information to the growing field of practice. Wave partnered with the Center for Research and Reform in Education Institute at Johns Hopkins University - *U.S. News & World Report's* #1 ranked graduate school of education – to analyze the data on 15 veterans undergoing an eight-week ABT treatment protocol.

The evaluation yielded significant results with participating clients experiencing a more than 28% decrease in PTS symptoms over eight weeks. This means that the warm water therapy brought about improved sleep duration and quality, decreased pain and lower levels of anxiety. And for veterans living with the debilitating impacts of PTS, that improved clarity and peace of mind translates into a vastly improved quality of life.

Evaluation Participants

The program evaluation documented the symptomatic progression of 15 Army, Navy, Air Force and Marine veterans who were clinically diagnosed with PTS. Detailed inclusion and exclusion criteria were utilized in accepting subjects into the evaluation.

Key points in the distribution of participants include:

- Combat location for all participants: Iraq
- Average age of the evaluation participants: 35.20
- Gender breakdown: 13 males/2 females
- Ethnic breakdown: 11 White/Caucasian, 1 African American, 2 Asian Eastern Asia/Pacific Islander and 1 mixed
- 10 participants were unemployed
- Preliminary assessments confirmed that 12 clients were clinically diagnosed with depression; 14 diagnosed with anxiety; 13 diagnosed with chronic pain

Protocol

The testing protocol involved a detailed intake session followed by one one-hour water therapy session per week over a period of eight weeks. Five assessment tools were used to gauge clients' symptoms over the course of the protocol and were administered at four points – pre-therapy and at weeks two (2), four (4) and eight (8). In addition, an exit interview was done with each client after the last session. The treatment sessions and data collection were conducted at therapy pools and in case management sessions, respectively, in San Diego, CA.

Designated Wave Academy personnel, under the guidance of Monica Traystman Ph.D., Wave Academy Research Program Advisor, undertook the research, including data collection. Dr. Traystman has a Master of Science degree focused in Psychometrics and Research from the School of Education at Johns Hopkins University and a doctoral degree from The Johns Hopkins Bloomberg School of Hygiene and Public Health in Immunology and Infectious Diseases. Researchers at the Johns Hopkins University, School of Education, Center for Research and Reform in Education analyzed the data.

The assessments administered were: Life Events Checklist (LEC), PTSD Checklist – Military (PCL-M), Post Traumatic Growth Inventory (PTGI), Functional Assessment of Chronic Illness Therapy – Spiritual (FACIT-Sp) and Profile of Mood States (POMS). All of these instruments are self-reported scales. The PCL-M assessment is used specifically for PTS symptoms based on diagnostic criteria as described in the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition). Quantitative data from the clients' assessments were analyzed using nonparametric tests, as they make fewer assumptions about the distribution of data on which they are used and rely on ranking of the data. These data can be used with all scales, need not involve population parameters and the result may be as exact as parametric procedures.

Results

Preliminary results indicate that warm water therapy may be linked to better sleep, pain reduction and lower levels of anxiety – all symptoms of PTS. PTS symptoms went down, on average, for participants at week four of the eight-week protocol. There appears to be a baseline period of at least four weeks when participants were getting acclimated to the therapy. After four weeks, reductions start to appear on two of the assessments: the PTSD Checklist-Military (PCL-M) and Profile of Mood States (POMS).

- PCL-M scores showed a 28% median reduction in symptoms over the eight weeks.
 - The PCL is a 17-item self-report checklist of PTS symptoms based closely on the DSM-IV criteria. Respondents rated items to indicate the degree to which they were bothered by particular symptoms over the past month. The PCL-M is a military version of the assessment and questions refer to “a stressful military experience.”
- POMS scores showed a 38% median reduction in symptoms over the eight weeks.
 - The POMS instrument assesses the mood states of individuals 13 years of age and older. A short form was used comprised of 37 items that allowed for the quick assessment of transient, fluctuating feelings and enduring affect states. Scales include: anger-hostility, depression-dejection, fatigue-inertia, tension-anxiety, confusion-bewilderment, vigor-activity and friendliness.

Conclusion

This quantitative data, along with powerful personal testimonials from Wave Academy clients – who have shared deeply personal accounts of their improving physical, mental and emotional health – shows great promise for Aquatic Bodywork Therapy and its potential to help heal the thousands of veterans of the Iraq and Afghanistan war era diagnosed every month with PTS.