Outcome Research

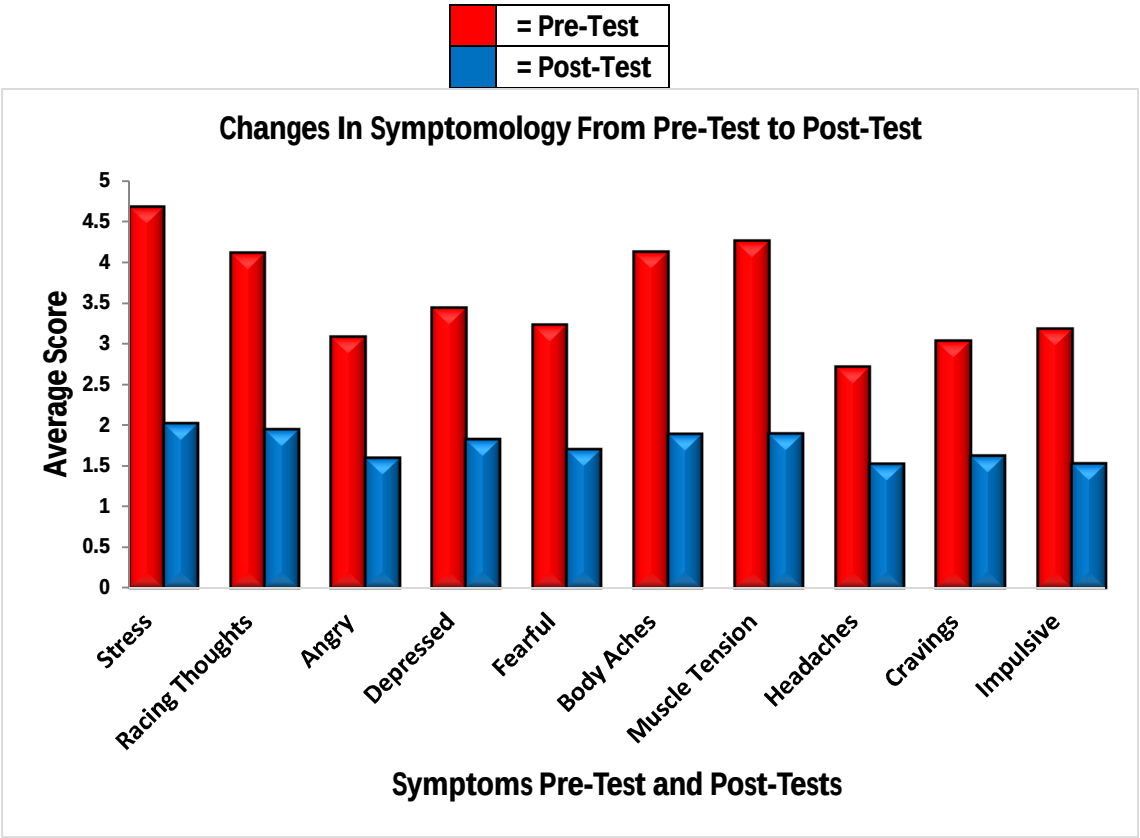
Efficacy of the Biosound Therapy System

By: Richard D. Froilán-Dávila PhD & William B. Secor PhD

Abstract

The research examined the Biosound Therapy System, which was designed to enhance the treatment of addiction disorders and symptoms associated with them. The research examined client's self-reports on several physiological, psychological, and emotional variables of: stress, racing thoughts, cravings, anger, impulsive behavior, depression, fear, body aches, muscle tension and headaches. Each client was presented with a Likert type 10-point scale with 10 being the most severe and 1 being the least and they were to rate themselves both pre-test and post-test after each session. Each response was averaged over all sessions to determine if there was either a decrease or increase in their symptomatology associated with each variable. A statistical evaluation was performed to determine if readings were statistically significant. The pretest and post-test scores were averaged for each client in each program based on any reduction or increase in their responses to the various variables from their pre-test scores. There was a statistically significant reduction between their higher pre-test scores, versus their post-test scores.

The chart shows the average of all 3000+ pre-test and post-test scores for each of the symptoms.



Symptom	Decrease
Stress	57%
Racing Thoughts	53%
Angry	48%
Depressed	47%
Fearful	47%

Symptom	Decrease
Body Aches	54%
Muscle Tension	56%
Headache	44%
Cravings	46%
Impulsive	52%

Data Collection

A Likert psychometric scale was used. It is the most widely used approach to scaling responses in survey research, such that the term (or more accurately the Likert-type scale) is often used interchangeably with rating scales. Ours was a ten-item scale covering 10 variables, with a range of 1 to 10, 10 being the most severe.

Each of the variables was tested for each client, comparing their pre-test and post-test scores. The population was identified as to gender, age, and their number of sessions and length of each session. The research population came from a variety of treatment programs who have integrated the Biosound Therapy system in various cities and states. The data was collected electronically and stored as an electronic health record via the Biosound outcome data analyzer. Confidentiality was strictly maintained as no client or their program was identified. Only client and program identification numbers were used. Clients who experienced BioSound therapy for a minimal of five sessions or more were specifically examined to determine if a reduction in symptoms was indicated. This research accessed more than 800 clients.

Statistical Analysis

Mean post-tests scores were calculated for each of the ten physiological symptoms comparing client's scores pre-test to post-test scores. A mean percentage of change was also calculated for each variable (symptom). Wilcoxson signed rank tests were calculated for each of the ten symptoms. A Bonferroni correction for multiple comparisons required $p>.005$ to obtain an experiment-wise significance level of $p<.05$. The null hypotheses (Ho) was: There is no significant statistical difference between a client's pre-test and post-test symptomatology scores, after using the Biosound Therapy System.

Results

After analyzing the data collected from over 3000 client responses, the null hypotheses was rejected. There is a significant statistical difference between a client's pre-test and post-test symptomatology scores after using the Biosound Therapy System.

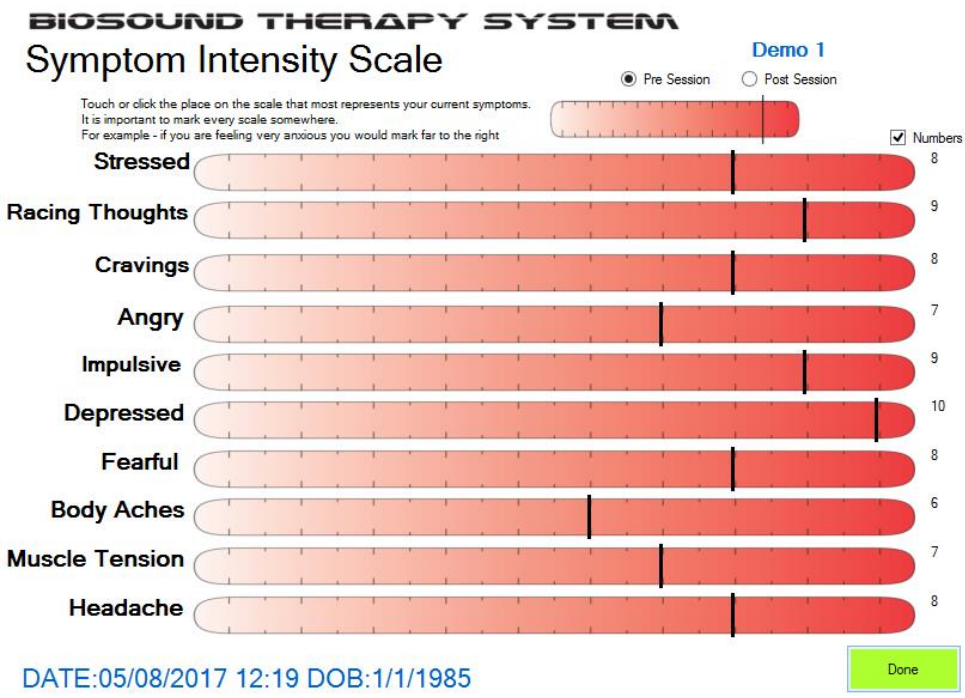
- Total N = Approximately 800 client sessions (Although over 3,000 client responses were examined, not all clients were used for analysis, because they did not meet the strict criteria).
- Total programs: 31 (10 usable based on our criteria)
- Criteria; At least 5 sessions per client and a minimal of ½ hour on the device.
- Age Range: 12-60
- Range of Responses to Variables (fear, depression etc.): 1-10 (with 10 being the most severe. 1 the least)
- Gender: Female to Male Ratio: A preponderance of males 75 percent to 25
- Average Age (All Clients): 30s
- Average Time on Device: (at least ½ hour on the device):
- Average Number of Sessions (5): Some programs had 20 or more, one program had the most number of clients and sessions.

About the Authors

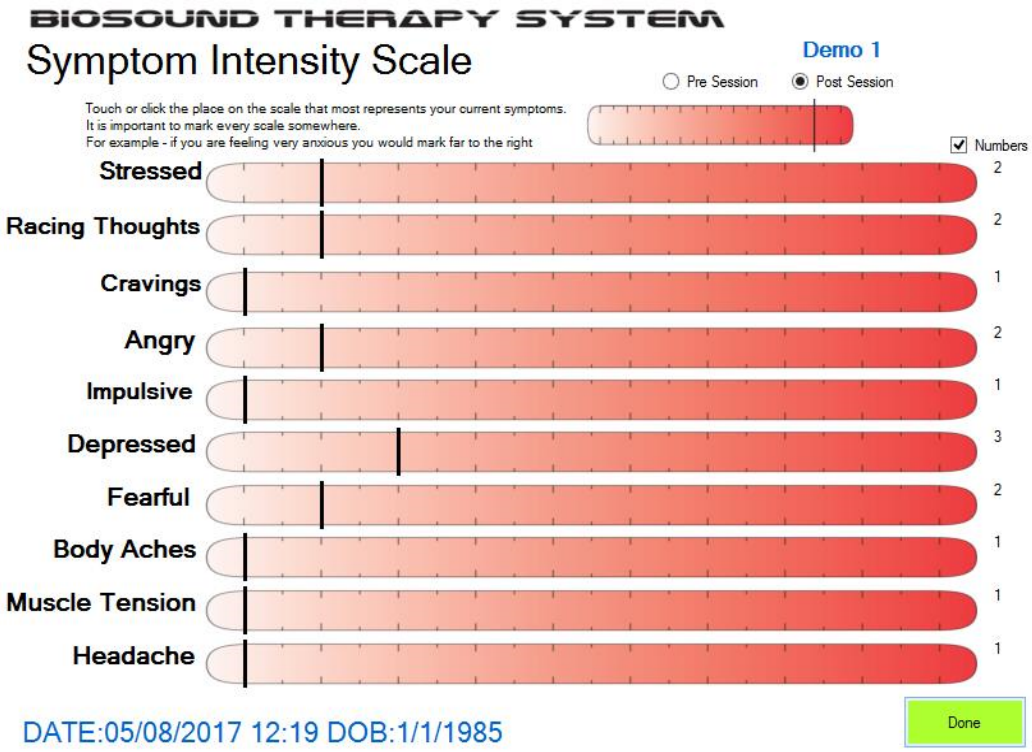
Richard D. Froilán-Dávila PhD, is the campus director for Springfield College, School of Human Services, in Tampa Bay, FL and has served there as the associate dean for the School of Human Services. He has more than thirty years of work in education and community work, and has held faculty and management positions. He is recognized as an international lecturer in adult education, alcohol and drugs, and diversity, and has served on many state and national agency boards in the field of addiction. He is also a full professor and addictions track coordinator at the School of Professional and Continuing Studies.

William B. Secor, PhD, is an educator educated at the University of Connecticut, with course work at MIT and NYU Graduate School of Medicine. He is also a researcher and author of a number of research articles on addictionand other topics, such as child abuse, TBI, and learning. He authored a book with Dr. Dávila, Living Your Life Not Your Story, and lives in Brandon, FL where he has taught and tutored.

Sample Pre-Test



Sample Post-Test



Complete article, study and statistical data available upon request.

Call 888-495-1946 or email system@biosoundhealing.com