

# An International Study of the Clinical Uses of the BAUD

Emotional, Lifestyle and Pain  
Parameters

- The purpose of this study was to determine whether the Bioacoustical Utilization Device (BAUD) could be effective in alleviating symptoms related to emotional issues, impulsive behavioral issues, and/or chronic pain.

# Subjects

- Eighty-six patients treated by 19 therapists in the USA, Switzerland, Portugal, and Denmark underwent treatment with the BAUD for one or more sessions. A Likert rating of symptomatology was recorded before and after treatment for all patients, and 3 wks after treatment in a subset of patients.

# Results

- Analysis of immediate post-treatment data using McNemar's test demonstrated clinically and statistically significant improvement in all three symptom groupings. Data recorded 3 wks post-treatment demonstrated stability of post-treatment results in most patients in the emotional issues and chronic pain categories.

# Treatment Procedure

- The patient places the headphones on and adjusts each of the volume knobs so that a moderately loud, yet comfortable level of sound is achieved, with the sound seeming to be centered in the head. The patient then imagines the stressful situation in as great a detail as possible, focusing on the emotion associated with the stress (e.g., fear, dread, anger, etc). Holding the image and emotion in mind, the patient adjusts the frequency to a point where the feelings are stronger or intensified. This peak can also be measured by a GSR meter or differential pulse meter. This frequency level is labeled the sympathetic arousal point. The next step is to neutralize or lessen the feelings by adjusting the disrupter frequency. This creates a difference in the frequency heard in each ear, producing a third frequency. This third frequency is noticeable to the patient as disrupting the emotional arousal and creating a sense of calm or lessening of the emotional arousal. This disruption is related to the Third Principle of Brain Plasticity (Lawlis, 2009) in which common patterns of neuron firing are immediately stopped. The final step is to stabilize the new pattern of firing.



# Statistical Decisions

- Descriptive data (means and standard deviations) were calculated for pre- and post scores for each of the three symptom groups. Data were analyzed using the McNemar's test . Significance was accepted when 3 criteria were satisfied: 1) p-value  $<.01$ , 2) there was at least a 2 point difference between the pre- and post-scores, and 3) the pre-post difference in scores crossed the mid-point of the rating scale (i.e., 5-6).

# Statistical Outcomes

• Symptom group	Pre-treatment	Immediate	3 wks
•	Post-treatment	Post-treatment	
•	<hr/>		
• <b>Emotional</b>	7.5 ±	3.6 ±	
• n	50	50	25
• Range	6 -10	0 – 7	
• <b>Impulsive Behavioral</b>	7.7 ±	2.9 ±	
• n	19	19	5
• Range	8 -10	0 – 8	
• <b>Chronic Pain</b>	7.2 ±	2.2 ±	
• n	17	17	9
• Range	4 -10	0 - 7	