# Neurotherapy Institute of Central Illinois (NICI)

Whitepaper 2017

# Comparison of Clinical Neurofeedback at NICI vs Peoria Area Providers of Brainpaint Neurofeedback

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**Purpose:** After being the first private practice group in the Peoria area to offer clinical neurofeedback to our clients, many other area providers of mental health services have begun to offer Brainpaint neurofeedback. As a result, we have been frequently asked, "What do you think of Brainpaint? How does it compare to regular clinical neurofeedback? Do you recommend it?" Of course, these are important and complicated questions to answer. They deserve a thorough and professional response that objectively reflects the strengths and limitations of each service. The purpose of this whitepaper is to present such a review and offer a list of questions you may ask any mental health provider who offers neurofeedback services. The information below is taken from the Brainpaint website and the author's personal knowledge and experience with NICI clinical neurofeedback.

# NICI Clinical Neurofeedback

Practitioner owned, FDA approved, medical grade equipment.

Multiple evidence-based training protocols with fully customizable biofeedback and neurofeedback software platform.

Provides simultaneous training of brainwaves (neurofeedback) and other physiological measures of self-regulation (biofeedback).

Multiple feedback options are available to sustain client attention. These include: video images, animations, puzzles, games, graphs, sounds, and DVD music videos and movies.

Training is fully clinician monitored with active clinician guided thresholding that assures moment to moment, individually determined, optimal reinforcement of brainwave changes.

## Peoria Area Providers of Brainpaint

Manufacturer owned, practitioner subscribed (leased), FDA approved, medical grade equipment.

Several evidenced-based training protocols with limited customizable neurofeedback software platform.

Provides training of brainwaves (neurofeedback). Does not provide training of any other measures of physiological self-regulation.

Limited feedback options that primarily involve fractal (abstract screen saver type images), new age music and linear graphics.

Training is not clinician monitored and employs automated thresholding that may be less sensitive to client variation in the optimal reinforcement of brainwave changes.

#### NICI Clinical Neurofeedback

Employs muscle tension monitoring to control distortion of clear brainwave feedback.

Clinicians are required to complete a minimum of 36 hours of face to face and experiential certification training in neurofeedback, client assessment, computer software, research in and use of EEG equipment, and professional ethics specific to the provision of neurofeedback.

Client pre-training assessment to evaluate areas of neurological dysregulation consists of of a thorough psychosocial medical history, psychological testing of the relative presence of anxiety, depression, trauma, and attention, a 60 item behavioral symptom checklist, a computerized test of variable attention, and a normative baseline EEG brainwave assessment.

ICD-10 mental health diagnosis is provided and treatment limited to clinician area of expertise. Due to the clinical expertise required to provide effective neurofeedback, home training is prohibited.

A five channel (5 location) clinically normed and/or nineteen channel (19 location) general population normed, baseline EEG brainwave assessment is included.

Training protocols and sensor location are selected based upon the combined results of the extensive, individualized pre-training assessment and clinician experience and expertise.

Utilizes standard blue Neurotrode silver chloride coated EEG sensors with Ten20 electrode paste for optimal conductance.

#### **Peoria Area Providers of Brainpaint**

Employs body movement monitoring to promote client physical calming.

Does not require certification training. Practitioners must complete a 4 ½ hour webinar training and review a DVD manual and videos. No face to face, experiential, or neurofeedback specific ethics training is required.

Client pre-training assessment limited to an automated 90 question assessment.

Unknown and not required for available home training option.

None.

Training protocols and sensor location determined by automated, soft-ware driven, 90 question assessment.

Utilizes sponge and salt water sensors secured to head with elastic headband.

| of recommendations for counseling,<br>neurocounseling, pre-training biofeedback,<br>neuroplasticity promoting food supplements<br>(IE. Omega-3, Curcumin, Melatonin,<br>N-Acetylcysteine), and neurofeedback with<br>specifically, targeted training goals and an<br>estimate of the number of needed training<br>sessions. |  |
|---|--|
| Dual computer monitor training with one<br>dedicated to clinician session administration<br>with clinician guided thresholding and the other<br>to presentation of client feedback.   | Single computer monitor training without clinician session administration and clinician guided thresholding.   |
| Client pre-training in physiological<br>self-regulation (skin temperature and<br>Heart rate variability biofeedback) to<br>optimize neurofeedback training results.   | Unknown.   |
| Initial improvement usually observed within<br>5 to 8 sessions but on the average, 20-30<br>are needed, with more sessions necessary for<br>more complicated and severe problems such as<br>bipolar disorder, autism spectrum disorder, and<br>traumatic brain injury.  | Similar initial improvement can be expected.<br>Typical number of sessions for specific<br>problems is unknown as is efficiency of training<br>for more complicated and severe problems.<br>20 to 30 sessions are usually recommended. |

Protocol adjustment and training effectiveness determined by both changes in brainwave activity and behavioral improvement of 60 item behavioral symptom checklist, completed every 10 sessions and when neurofeedback is complete.

NICI Clinical Neurofeedback

Individualized treatment plan that consists

**Biofeedback Certification International Alliance** (BCIA) 36-hour basic certification training is required to provide neurofeedback.

Additional BCIA certification training in biofeedback and 19 Channel Quantitative Electroencephalogram (QEEG) by several NICI clinicians.

Protocol adjustment and training effectiveness determined by 6 questions asked each session, to determine life and symptom improvement.

Not required.

Not required.

Unknown.

#### NICI Clinical Neurofeedback

Alliance (BCIA).

Peoria Area Providers of Brainpaint

Advanced BCIA Board Certification in Not required. Neurofeedback consisting of 100 hours of professional mentoring, a college level course in human physiology and neuroanatomy, 10 case presentations, clinician engagement in personal neurofeedback training, and completion of the international board certification examination by two NICI clinicians. Ongoing and completed NICI research projects Unknown. and other professional articles on neurofeedback published in several counseling and neurotherapy journals and popular media (Counseling Today magazine and Psychology Today blog). Published books and book chapters teaching Unknown. mental health professionals how to incorporate neurotherapy, neurocounseling and neurofeedback into their practices. Invited lecturers on neurotherapy, neurocounseling Unknown. and neurofeedback at state, national and international professional associations including: Illinois Counseling Association, Ohio Counseling Association, American Counseling Association, Association of Humanistic Psychology and the International Association of Neurofeedback and Research. Providers of professional training and clinical Unknown. supervision of mental health professionals who have completed the BCIA 36 hour basic neurofeedback certification training. Members of the International Society for Unknown. Neurofeedback and Research (ISNR) and Association for Applied Psychophysiology and Biofeedback (AAPB) who follow the neurofeedback specific, professional ethical codes and continuing education requirements of the Biofeedback Certification International

#### NICI Clinical Neurofeedback

Fees for neurofeedback are based upon the usual and customary rates for personal counseling and are reduced when multiple training sessions are purchased. Sessions may not be transferred to other family members because they are necessary to fulfill client's family individualized treatment plan. As previously noted, the required training and clinical expertise required to conduct effective neurofeedback prohibits home use.

#### **Peoria Area Providers of Brainpaint**

Fees also based on the usual and customary rates for personal counseling and reduced when multiple training sessions are purchased. Sessions may be transferred to other family members and when equipment subscribed (leased) for home use, it is available to other members without direct clinician guidance.

Summary: Although design is based on the existing neurofeedback research literature, Brainpaint is a simplified and largely automated form of neurofeedback training for the minimally trained mental health provider. It costs about the same as NICI clinical neurofeedback. Its providers have not completed extensive training in neurofeedback. Its providers do not conduct thorough client pretraining assessment and treatment planning. They may not provide client pre-training preparation in physiological self-regulation. The Brainpaint equipment does not offer brainwave assessment or tracking of brainwave changes. Their treatment planning and protocol selection is based on an automated, 90 question computer generated protocol selection process with a 6 question, session to session, protocol tuning and outcome tracking procedure. Their delivery of neurofeedback is also automated with minimal clinician involvement and no clinician guided thresholding, permitting a home training option. Their client feedback options are also limited, potentially effecting client interest and engagement in the training process. They are not required to complete BCIA basic certification training, to maintain membership in the appropriate neurofeedback related professional associations or to follow the neurofeedback ethical and continuing education requirements of those organizations. Because of their minimal professional involvement in the field of neurofeedback, area Brainpaint providers are not likely to conduct research, write professional articles, book chapters or books, and are not likely to provide professional supervision, mentoring or education in neurocounseling, neurotherapy and neurofeedback to other professionals.

NICI providers of clinical neurofeedback provide everything Brainpaint does and much more. The NICI difference includes their depth of training in the provision of clinical neurofeedback, thorough client assessment and treatment planning, client pre-training preparation in physiological self-regulation, moment to moment clinician guided neurofeedback training and thresholding, and outcome assessment that includes tracking of changes in brainwave activity and 60 behavioral symptoms. In addition, NICI providers of clinical neurofeedback are leaders in their field. They have advanced training in biofeedback, 19 channel quantitative electroencephalography, and Board Certification in Neurofeedback. They are nationally recognized authors, researchers, educators, and providers of supervision and mentoring services to other mental health professionals who are learning how to integrate neurocounseling, neurotherapy, and neurofeedback into their practices. With NICI clinical neurofeedback, clients are assured they are receiving the highest quality of neurofeedback services available today.

### Questions to Ask Your Prospective Neurofeedback Provider:

- 1. Have you completed BCIA basic certification training in neurofeedback?
- 2. Are you a member of the governing organizations for neurofeedback including BCIA and AAPB?
- 3. Do you follow the neurofeedback specific ethical guidelines of BCIA?
- 4. Are you Board certified in neurofeedback?
- 5. Do you engage in ongoing professional continuing education in neurofeedback?
- **6.** Do you have specialized training in the emotional, behavioral and/or cognitive problems you treat with neurofeedback?
- **7.** How many hours of specialized training do have in neurocounseling, neurotherapy, and neurofeedback?
- 8. How many years of experience do you have in providing neurofeedback training?
- 9. How many clients have you effectively treated with neurofeedback?
- **10.** Can you tell me why you will be employing a certain neurofeedback protocol, how it changes my brain and how it will affect the problem/s I am experiencing?
- **11.** What research, professional writing, training, supervision and mentoring have you provided to other professionals in neurocounseling, neurotherapy and neurofeedback?
- **12.** What neurofeedback qualifications does your group supervisor have in neurofeedback and how much ongoing, locally provided, supervision do you receive, specifically focused on your neurofeedback work?

**More Information:** For more information about the **Neurotherapy Institute of Central Illinois's (NICI)** clinical neurofeedback services, call **(309) 681-5850** and speak with one of our fully trained, qualified, and experienced providers of clinical neurofeedback. Ask them to send you information on neurocounseling, neurotherapy and the use of neurofeedback to treat your emotional, behavioral or cognitive problem. Specific brochures are available for Neurocounseling, Neurofeedback, and the use of neurofeedback for the following specific problems: ADHD, Trauma and Substance Abuse, Insomnia, Traumatic Brain Injury, and Peak Performance.

## **NICI Clinical Neurofeedback Providers**

**Ted Chapin, Ph.D.** Licensed Clinical Psychologist Board Certified in Neurofeedback Trained Neurocounselor

### Brad Post, MSW

Licensed Clinical Social Worker Trained in Neurofeedback and Neurocounseling

### Lori Russell-Chapin, Ph.D.

Licensed Clinical Professional Counselor Board Certified in Neurofeedback Trained Neurocounselor

### Jason, DeFord, MA

Licensed Clinical Professional Counselor Trained in Neurofeedback and Neurocounseling