2“Quantitative EEG Techniques and Neurophysiological Symptom Integration for Assessment and Neurofeedback”

4 Day Workshop with Leslie Sherlin, PhD

A 4 day, 36 hour workshop for biofeedback/neurofeedback practitioners, psychologists, clinical counselors, clinical social workers, marriage and family therapists, nurses, physicians, and other health care professionals with an interest in electroencephalography, quantitative analysis techniques, QEEG patterns of psychopathology, neurophysiological symptom integration for treatment planning and EEG operant conditioning.

Conference Faculty

Leslie Sherlin, PhD, QEEGD, BCN, BCB

Leslie is certified at the diplomat level in quantitative electroencephalography and is board certified in both Biofeedback and Neurofeedback by BCIA. Additionally he has expertise in a wide variety of software applications for EEG acquisition, QEEG analysis and bio or neurofeedback interventions. Dr. Sherlin is an approved BCIA mentor.

Course Description

This workshop focuses on multiple aspects of utilizing electroencephalography (EEG) for assessment and therapy. The technological advances in the field of human brain mapping as well as biofeedback have amalgamated to provide vast opportunities for the mental health provider to capitalize on increased efficacy in assessment and intervention.

The course will open with a refresher on the basic neuroanatomy and gross functions of the structures of the brain involved in the regulation of psychophysiology. This will lead into a fundamental presentation on the generation of the electrical activity of the brain in a comprehendible manner. Together this information will provide the groundwork for advanced thought in neurophysiological symptom integration with QEEG assessment.

The program will illuminate the techniques and applications of quantitative electroencephalography (QEEG) analysis such as continuous EEG spectral analysis, normative/reference population comparisons, independent component analysis (ICA), and low-resolution electromagnetic brain tomography (LORETA). These techniques will be explained both in definition as well as implementation leaving the attendee with a clear understanding of the utility and the applicability of each method.

Finally the aforementioned concepts will provide a straightforward approach to interpreting and implementing QEEG information in the development of protocols for intervention including operant conditioning of the EEG. A reminder presentation of the basic principles of learning theory will be delivered with specific discussion of complementary techniques such as general biofeedback and other mental health practices to increase the efficacy of EEG operant conditioning.

The concepts will be delivered through both didactic and case presentation with audience participation in a casual and experiential format.

Conference Schedule

Wednesday, May 19, 2010 (DAY 1)

8:30 – 9:00 **Sign in/coffee**

9:00 – 9:30 **Introductions and orientation**

9:30 – 12:00 **Lecture – Leslie Sherlin, Ph.D.**

- Basic Neuroanatomy and gross functions of the structures of the brain involved in the regulation of psychophysiology
- fundamentals in the generation of the electrical activity of the brain

12:00 – 1:00 **Lunch on your own**

1:15 – 5:00 **EEG Recording Lab**

Thursday, May 20, 2010 (DAY 2)

8:30 – 9:00 **Review of day 1 lecture – Q&A**

9:00 – 12:00 **Lecture – Leslie Sherlin, Ph.D.**

- Techniques and applications of QEEG: continuous EEG spectral analysis and normative/reference population comparisons
- Techniques and applications of QEEG: independent component analysis (ICA), and low-resolution electromagnetic brain tomography (LORETA).

12:00 – 1:00 **Lunch on your own**

1:15 – 3:00 **EEG Recording**

3:00 – 5:00 **EEG Editing**

Friday, May 21, 2010 (DAY 3)

8:30 – 9:00 **Review of day 2 lecture – Q&A**

9:00 – 12:00 **Lecture – Leslie Sherlin, Ph.D.**

- An approach to interpreting and implementing QEEG information based on QEEG analysis, symptom integration and established EEG operant conditioning research
- Basic principles of learning theory as it applies to EEG operant conditioning

12:00 – 1:00 Lunch on your own

1:15 – 3:00 EEG Editing

3:00 – 5:00 QEEG Analysis

Saturday, May 22, 2010 (DAY 4)

8:30 – 9:00 Review of day 3 lecture – Q&A

9:00 – 12:00 Lecture – Leslie Sherlin, Ph.D.

- Complementary techniques to increase the efficacy of EEG operant conditioning
- Development of intervention protocols: a step-wise implementation using actual case data

12:00 – 1:00 Lunch on your own

1:15 – 3:00 QEEG Analysis

3:00 – 5:00 QEEG Reports & Protocol

Airport information:

The closest International Airport is: **Phoenix Sky Harbor International Airport**

Hotel Information:

To make reservations, please call and ask to make a reservation in the **NOVA TECH EEG GROUP BLOCK BY THE DEADLINE OF MAY 1ST.**

Hilton Garden Inn - 602-470-0500
Rate - $99 One room Suite with one king bed and living room area with sofa sleeper (includes airport shuttle and high speed internet, microwave and fridge in room, fitness center, pool and jacuzzi, full service restaurant and bar)
Hilton Garden Inn Web Site

OR

Holiday Inn Express - 602-453-9900
Rate - $89 Standard Room with one king bed (includes airport shuttle, high

speed internet, and hot breakfast buffet, microwave and fridge in room, fitness center, pool and jacuzzi)
Holiday Inn Express Web Site

*The conference center where the Nova Tech EEG Workshops will be held is directly in front of the two hotels listed in the same parking lot so you will be able to walk to training from either hotel.