



Southeast Biofeedback and Clinical Neuroscience Association

www.sebiofeedback.org

Presents

2017 Conference

**“BIOFEEDBACK AND NEUROFEEDBACK:
PRINCIPLES AND PRACTICES OF TRAINING SELF-
REGULATION
FOR OPTIMAL HEALTH”**

**Pre-Conference Workshops
November 2, 2017**

**Main Conference
November 3-5, 2017**

*Embassy Suites, Crabtree,
Raleigh, NC*

Please join us for collegiality, education, and inspiration.

SBCNA PRE-CONFERENCE PROGRAM

Thursday, November 2, 2017

** For the preconference sessions you may choose to attend both lectures,
or one lecture and the related hands-on workshop.*

7:30a - 8:30a **Registration**

8:30a - 9:00a **Welcome**
Paul Michael Ramirez, PhD, President of SBCNA

9:00a - 10:30a **Graham Room**

Introduction to Biofeedback

Dan Chartier, Ph.D.

A Basic Introduction to the Science of Biofeedback and the Process of Self-Regulation, this workshop will provide a thorough introduction to the art and science of biofeedback. The goal will be to help newcomers understand basic concepts and principles and assist more experienced practitioners in refreshing the essence of what works in using feedback technology to promote health and well-being. *(NBCC, APA CE Credits 1.5-Basic)*

Edison Room

Concurrent Workshop: Peder H. Fagerholm, Ph.D. will present an informal Introduction to Neurofeedback Equipment and Practices, including hands-on opportunities with Brain Master and Nexus systems. *(NBCC, APA CE Credits 1.5-Basic)*

Bell Room

The Automated Cognitive Activation QEEG Evaluation Software and Expert System Automated EEG Biofeedback Intervention Software.

Kirtley Thornton, PhD

The pre-conference workshop will present the automated cognitive activation QEEG evaluation method which lasts about 60 minutes. The only tasks the technician has to do is 1) put on the cap; 2) obtain demographic information and enter into software; 3) start the automated software; 4) pause recording if artifacts present a major problem; 5) score audio recordings of subject's memory recall of auditory and reading material; 6) upload the file to the server for analysis. The evaluation assesses eyes closed, auditory and visual attention, auditory and reading memory, working memory and problem solving. The server analyzes the data, provides a lengthy report with specific recommendations for the 3 critical tasks of auditory and reading memory and problem solving. An expert system local software employs the analysis results and mathematically determines the preferred reward and inhibit variables based upon the Coordinated Allocation of Resource Model.

(NBCC, APA CE Credits 1.5-Advanced)

10:30a - 11:00a **Break & Visit Exhibitors**

11:00a - 12:30p Graham Room

Introduction to Biofeedback (continued)

Dan Chartier, Ph.D. (NBCC, APA CE Credits 1.5-Basic)

Edison Room

Concurrent Workshop: Peder H. Fagerholm, Ph.D. Introduction to

Neurofeedback Equipment and Practices, (continued) (NBCC, APA CE Credits 1.5-Basic)

Bell Room

**The Automated Cognitive Activation QEEG Evaluation Software and Expert System
Automated EEG Biofeedback Intervention Software.**

Kirtley Thornton, PhD (continued) (NBCC, APA CE Credits 1.5-Advanced)

12:30p - 1:30p Lunch

1:30p - 3:00p Graham Room

Introduction to Neurofeedback

Richard Soutar, PhD

This workshop is for those who are new to neurofeedback (NFB), considering entering the field or incorporating NFB into an existing practice, or looking for a current, research-based NFB refresher. Dr. Richard Soutar will cover the basics, key concepts and skill areas including the theory and methods behind NFB and qEEG, practical applications in clinical settings, basic brain anatomy and assessment procedures, EEG biofeedback software, and basic dimensions of brain maps. (NBCC, APA CE Credits 1.5-Basic)

Edison Room

Concurrent Workshop: During this time Peder H. Fagerholm, Ph.D. will present an informal Introduction to Peripheral Biofeedback Equipment and Practices, including hands-on opportunities with Brain Master and Nexus systems. (NBCC, APA CE Credits 1.5-Basic)

Bell Room

**The Automated Cognitive Activation QEEG Evaluation Software and Expert System
Automated EEG Biofeedback Intervention Software**

Kirtley Thornton, PhD (continued) (NBCC, APA CE Credits 1.5-Advanced)

3:00p - 3:30p Break & Visit Exhibitors

3:30 - 5:00p Graham Room

Introduction to Neurofeedback (continued)

Richard Soutar, PhD (NBCC, APA CE Credits 1.5-Basic)

Edison Room

Concurrent Workshop: Peder H. Fagerholm, Ph.D., Introduction to Peripheral Biofeedback

Equipment and Practices (continued), (NBCC, APA CE Credits 1.5-Basic)

Bell Room

**The Automated Cognitive Activation QEEG Evaluation Software and Expert System
Automated EEG Biofeedback Intervention Software**

Kirtley Thornton, PhD (continued) (NBCC, APA CE Credits 1.5-Advanced)

Dinner on your own

SBCNA MAIN CONFERENCE PROGRAM

Friday, November 3, 2017

7:30a - 8:30a **Registration**

8:30a - 9:00a **Welcome**

Paul Michael Ramirez, PhD, President of SBCNA

9:00a- 10:30a **Graham Room**

**The Regulation of Sleep and How it Can Go Wrong: 2 Common Sleep Disorders and
Their Treatments.**

Allison T. Siebern, PhD

The talk will cover the following areas of sleep including:

- 1) Discussion of basic regulation of sleep including two process model of sleep and sleep architecture
- 2) Discussion of diagnostic criteria for insomnia disorder and circadian rhythm disorder, delayed sleep phase and review of clinical assessment and evidenced based treatments and case vignettes.

(NBCC, APA CE Credits 1.5-Introductory)

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in

Sheets: Peder H. Fagerholm, Ph.D

Electroencephalography (EEG); Electrodermal response (EDR); Electromyography (EMG); Heart rate; Hemoencephalography (HEG); Neurotechnology - Audio Visual Entrainment (AVE); Neurotechnology - Electrostimulation (CES/tDCS); Neurotechnology - Wild Divine series; Respiration; Temperature. *(NBCC, APA CE Credits 1.5-Introductory-Advanced)*

Bell Room

Biofeedback & Neurofeedback interventions for Concussions & Optimal Performance

Robert L. Conder, PsyD

The overall focus of this presentation is the use of biofeedback and neurofeedback interventions, coupled with non-pharmacologic behavioral interventions, to restore self-regulation of autonomic and central nervous system functioning placed into dysregulation by concussions and neurologic injury. Concussions can result in musculo-skeletal, vascular, autonomic and neurologic dysfunction. While many concussions are self-limiting, some become chronic, causing personal, academic and/or vocational

disruption. While talking therapies can help, biofeedback and neurofeedback assessments target the critical areas of dysregulation and provide measureable intervention for maximum recovery. Many techniques can also be used for enhancing optimal performance in non-injured persons. A BioPsychoSocial perspective is used for assessment and guiding treatment. Both office and home practice techniques will be presented, paired with behavioral interventions for diet, exercise and sleep. *(NBCC, APA CE Credits 1.5-Intermediate)*

10:30a - 11:00a **Break & Exhibitor --Meet & Greet Presenters**

11:00a - 12:30p **Graham Room**

The Regulation of Sleep and How it Can Go Wrong: 2 Common Sleep Disorders and Their Treatments. (continued)

Allison T. Siebern, PhD *(NBCC, APA CE Credits 1.5-Introductory)*

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)

Peder H. Fagerholm, Ph.D

(NBCC, APA CE Credits 1.5-Introductory-Advanced)

Bell Room

Biofeedback Interventions for Sports Concussion migraines and POTS in Women

Alanna A. Conder, PsyD

This presentation will focus on biofeedback treatment for two problems which are common in young women and which have a psychophysiological basis: post concussive migraines and Postural Orthostatic Tachycardia Syndrome. Women in general have more symptoms and a longer recovery time from sports concussions than males, yet not much is noted in the treatment literature for gender differences. In higher achieving women, migraines can be especially debilitating in academic, vocational and/or social situations. Traditional migraine medication does not “cure” migraines and does not instill self-management skills of self-regulation and self-efficacy. Biofeedback training does. While POTS is an extreme example of autonomic dysregulation, it is also amenable to psychophysiological treatment. A case example of a young woman with POTS will be presented, including her successful biofeedback treatment. Recommendations for treatment strategies in the office and at home programs will be presented. *(NBCC, APA CE Credits 1.5-Introductory)*

12:30p - 1:30p **Lunch**

1:30p - 3:00p **Graham Room**

Hank Keller, the Rehabilitation of Hellen Keller’s Marginalized Twin

J. Michael Griffin, Ed.D., Ph.D., BCN and Diane Field, MS

The explanation of the procedural use of neurofeedback treatment in the rehabilitation of an adolescent male who presented with the following myriad of diagnoses:

- PTSD; including dissociative flight response,
- Non verbal learning disability (NVLD)
- An articulation disorder
- Inability to use his hands
- Vision impairments including loss or non development of the peripheral system, deficits in visual closure and visual motor integration.
- Sensory integration disorder, severely impaired affect regulation.

(NBCC, APA CE Credits 1.5-Introductory-Advanced)

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)

Peder H. Fagerholm, Ph.D

(NBCC, APA CE Credits 1.5-Introductory-Advanced)

Bell Room

Why Neurofeedback Scares the World, and Why the World Needs it Anyway: A Story

Dan Chartier, Ph.D., and Brandon Sneed, MA

Star young writer Brandon Sneed (B/R Mag, CNN, ESPN), shares the story of how he recently discovered neurofeedback and how it is helping the world's elite athletes win Super Bowls, championships, and gold medals, how it helped him with what smart people have told him are anxiety, depression, OCD, and ADHD (yes he's a mess, but entertaining, but maybe the way car crashes are entertaining). This was a big part of his new book HEAD IN THE GAME (Dey Street), and how he's recently also discovered just how much neurofeedback scares the world. Thing is, he understands why. He shares all of this, and moresuch as why he hopes everyone in neurofeedback never gives up, because they will save people nobody else can.

(NBCC, APA CE Credits 1.5-Intermediate)

3:00p - 3:30p

Break . Exhibitors--Meet & Greet Presenters

3:30p - 5:00p

Graham Room

Integrating Biofeedback with Psychotherapy to Treat Combat PTSD

Geoffrey Hutchinson, PhD

Peripheral biofeedback modalities, specifically electrodermal activity and heart rate variability, can be used to target pathological processes in combat PTSD. Experiential avoidance, intolerance of uncertainty, emotional dysregulation, metacognitive distortions, and thought control, maintain a spectrum of psychological disorders including PTSD. When combined strategically with cognitive and acceptance based therapies, biofeedback computer games and exercises in the session can directly modify these processes. Electrodermal activity exercises can teach passive relaxation skills designed to help PTSD patients increase distress tolerance while coming in contact with the present moment. HRV training, especially in activated states, can be used to teach emotional regulation skills to modulate the stress response and return the body back to a state of homeostasis. They can both be used to increase intolerance to uncertainty and increase deliteralization of certain thoughts. This psychotherapy-biofeedback integration also offers an alternative for patients who decline trauma-focused CBT involving exposure to specific memories.

(NBCC, APA CE Credits 1.5-Intermediate)

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)

Peder H. Fagerholm, Ph.D

(NBCC, APA CE Credits 1.5-Introductory-Advanced)

Bell Room

An Introduction to Psychopharmacology for the Non-Medical Biofeedback Clinician

Paul M. Ramirez, PhD

Given that many patients seen by biofeedback practitioners are on psychotropic medications, an understanding of such medications is becoming a best practices issue. As an example, many patients on psychotropic medications visit their prescribing physicians once a month for a medication check, whereas the same patient is likely to see the biofeedback practitioner many more times for treatment sessions. The

biofeedback practitioner is, therefore, in an excellent position to advocate for the patient by recognizing possible medication side effects which they can then report to the prescribing physician. A good example of this would be the case of a patient who develops Akathisia, a psychotropic medication side effect which manifests itself as profound subjective restlessness. This type of medication side effect can look like a motor problem which an uninformed practitioner might confuse with a primary motor disorder. This presentation will focus on the clinical indications for the major classes of psychotropic medications, side effects common to these classes, an introduction to pharmacodynamics (what drugs do to the body) and pharmacokinetics (what the body does to drugs) and a discussion of medication noncompliance.
(NBCC, APA CE Credits 1.5-Introductory)

5:00p - 6:00p BOD Meeting

6:00p - 7:00p **Welcome Reception with cash bar**

6:00p **Dinner on your own**

Saturday, November 4, 2017

8:00a - 8:45a **Registration**

8:45a - 9:00a **Welcome/Announcements**
Paul Michael Ramirez, PhD, President of SBCNA

9:00a - 10:30a **Graham Room**

Case Studies using Neurofeedback

Robert E. Longo, MRC, LPC, NCC, BCN, and Richard Soutar, PhD

This session will present several cases studies using neurofeedback training as a primary intervention. Cases will be presented including patient background, diagnosis (or presenting problem), cognitive functioning, emotional functioning, personality traits and factors, physical health overview, collaborative health information, qEEG assessment and results, neurofeedback protocol selection, additional interventions (i.e., biofeedback, AVE, HRV) when used, and patient progress over the course of time with intervention(s). Pre/post outcomes will also be addressed. Cases and data presented will be from the New Mind Mapping System.

(APA CE Credits 1.5-Intermediate)

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets:

Peder H. Fagerholm, Ph.D

Electroencephalography (EEG); Electrodermal response (EDR); Electromyography (EMG); Heart rate; Hemoencephalography (HEG); Neurotechnology - Audio Visual Entrainment (AVE); Neurotechnology - Electrostimulation (CES/tDCS); Neurotechnology - Wild Divine series; Respiration; Temperature. *(NBCC, APA CE Credits 1.5-Introductory-Advanced)*

Bell Room

EEG & QEEG: Foundations to Methods Leading to Training Planning

Grant Bright, PhD

The basics of EEG itself. Followed by the basics of QEEG in order to decide on targets and

methods of Neurofeedback training all in the context of doing "talk therapy" (if licensed) or being a part of the team doing therapy. Many times we are tempted to say, "Just show me how to push the buttons on the computer. I love using the computer and all the gadgets." The misses the foundations of what the EEG and qEEG are showing us. Looking deeper, we find previous labels, ADD, bi-polar, and the like are really indications of dysregulation in the brain. As we look deeper we find root causes enabling us as therapists to understand the individual and "do better for them," instead of just pushing buttons. (NBCC, APA CE Credits 1.5 -Intermediate)

10:30a - 11:00a **Break- Exhibitors--Meet & Greet Presenters**

11:00a - 12:30p **Graham Room**

Effective Interventions for Healing and Resilience Continued at 2:00 for Veterans

Susan Inteman, LPC, Maggie Minsk, LPC, NCC, Mary Markovich, JD, MBA Mindfulness, EMDR, hypnosis, and HRV biofeedback are all linked together as ways to heal from trauma and improve resilience, or the ability to bounce back after traumatic events. The symptoms that result from traumatic incidents are the effect of dysregulation of the autonomic nervous system (ANS), which has an inherent capacity to self-regulate that is undermined by trauma. This ability to self-regulate can be restored by specific procedures of reprocessing, body awareness, and trance. Participants will learn and practice specific techniques to self-regulate in order to stabilize the ANS and reduce or prevent symptoms of traumatic stress or high (and often chronic) anxiety. They will also learn how and why these ways work as well as some practical applications and how to use them personally and/or teach them to clients. (NBCC, APA CE Credits 1.5 -Introductory)

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)
Peder H. Fagerholm, Ph.D (NBCC, APA CE Credits 1.5-Introductory-Advanced)

Bell Room

The QEEG Correlates of Auditory Memory Across the ages 6-70, Developmental Patterns and Sex Differences.

Kirtley Thornton, PhD

The presentation will cover the developmental patterns of the QEEG variables employing Lexicor algorithms for magnitudes, relative power, peak frequency, coherence and phase. It will also examine the QEEG correlates of auditory memory across 3 age ranges (6-12; 12-19; 20-71) as well as sex differences in responding. Conceptual approaches employing the holographic model, the Coordinated Allocation of Resource Model (CAR), metaphorical flashlights and heuristic processing units will be presented as the framework in which to understand the results. The analysis will examine the results for the initial encoding task, the immediate silent recall, and delayed recall tasks. The presentation will also cover how the data was obtained with the cognitive activation QEEG evaluation methodology and the effectiveness of EEG biofeedback interventions. (NBCC, APA CE Credits 1.5-Advanced)

12:30p - 2:00p **Members Only Catered Lunch & Business Meeting** sponsored by SBCNA

Non-members will have lunch on their own

2:00p - 3:30p

Graham Room

Continued: Panel Discussion: "Providing Emotional Support to Veterans: The Homefront Cares"

Susan Inteman, LPC, Maggie Minsk, LPC, NCC, Mary Markovich, JD, MBA

This session will be a panel discussion between Maggie Minsk, Sue Intemann, and Mary Markovich as they explore and provide detailed information about the various ways in which we can support our veterans. Participants will learn from personal experiences shared by members of the panel and will develop a broader perspective of veterans today and their current needs and be able to explain why it's so important to provide emotional support to them. Participants will also gain a deeper understanding of benefits that are available to veterans and their family members, be able to discuss with and educate patients, who might be veterans or family members, about options and resources, understand the difference between disability compensation and pension, and finally develop a proactive strategy to optimize the health and well-being of veterans and/or family members of veterans. (NBCC, APA CE Credits 1.5 -Introductory)

Graham Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)

Peder H. Fagerholm, Ph.D (NBCC, APA CE Credits 1.5-Introductory-Advanced)

Bell Room

Neurofeedback in the treatment of adolescents in residential settings: A pilot study

J. Michael Griffin, PhD, BCN

The human EEG has correlates to behavior and emotion (Collura, 2014; Demos, 2005; Soutar, 2011). For example, excessive beta waves, especially those in the high beta range, may be related to anxiety, while excessive slow waves such as those in the delta theta and alpha bands are to depression. Techniques for the treatment of depression, anxiety, ADHD, ASD, developmental trauma and TBI, to name a few, are well documented (Hammond, 2005; Monastera, et al., 2012; Fisher, 2014; and Abbott, 2010). Additionally, the use of neurofeedback to improve behavior in felons was described by Quirk (1995), among the intellectually challenged by (), and with psychiatrically disturbed adolescents in residential treatment by Griffin (2016). This presentation extends the work described by Griffin.

(NBCC, APA CE Credits 1.5 -Intermediate)

3:30p - 4:00p

Break . Exhibitors--Meet & Greet Presenters

4:00p - 5:30p

Graham Room

Integrative Management of Sensitized Chronic Pain with Autonomic Self-Regulation

JP Ginsberg, PhD

Autonomic Self-Regulation (ASR) incorporates paced resonant frequency breathing of Heart Rate Variability (HRV) Biofeedback, Mindful focused attention, and positive emotional cognitions such as acceptance, compassion, or gratitude. ASR is an integrative health care technique that empowers patients with centrally sensitized chronic pain, and normalizes sympathetic over-arousal of the autonomic nervous system safely and comfortably. This 75-minute oral presentation (with breaks!) will provide attendees an understanding of how ASR reduces centrally sensitized chronic pain. The autonomic and central nervous systems pathways

of HRV that are in common with the neural pathways of centrally sensitized chronic pain will be presented. ASR rehabilitates the ANS in a safe and measurable way and provides a technique for self-management of centrally sensitized chronic pain. Through didactic instruction, illustrations with research data, and interactive discussion, attendees will develop familiarity with the advancing technologies and therapies that make ASR a simple, powerful, and effective tool in the pain clinic. *(NBCC, APA CE Credits 1.5 -Intermediate)*

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)

Peder H. Fagerholm, Ph.D *(NBCC, APA CE Credits 1.0-Introductory-Advanced)*

Bell Room

Neurofeedback in the treatment of adolescents in residential settings: A pilot study - (continued)

J. Michael Griffin, PhD, BCN

(NBCC, APA CE Credits 1.5 -Intermediate)

5:30p - 6:30p Silent Auction Results

6:30p **Dinner on your own**

Sunday, November 5, 2017

8:00a - 8:45a **Registration**

8:45a - 9:00a **Welcome/Announcements**
Paul Michael Ramirez, PhD, President of SBCNA

9:00a-10:30a **Graham Room**

Ethics in qEEG, Neuromodulation, and Biofeedback

Robert E. Longo, LPC, NCC

The focus of this workshop is to provide attendees with an overview of professional ethics and standards of practice as they apply to the helping professions and specifically those providing peripheral biofeedback and EEG biofeedback/neurofeedback and qEEG services. In addition this workshop will address challenges peripheral biofeedback and EEG biofeedback/neurofeedback practitioners face in our organizations, clinics, and practices.

Neurofeedback is becoming a “Holistic” form of treatment/intervention for clients and patients with a variety of disorders. Neurofeedback practitioners come from a variety of backgrounds and professional training, (i.e., medical, mental health, education, to name just a few) and are often asked to help clients/patients with various disorders that may fall within or outside of their professional training; (nurses working with patients having mental health issues, counselor and educators working with clients /patients with headaches, TBI related symptoms). As healthcare becomes more complex and integrated, those practicing peripheral biofeedback and EEG biofeedback/neurofeedback need to consistently keep ethics and standards of care in check.

(NBCC, APA CE Credits 1.5-Intermediate)

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)

Peder H. Fagerholm, Ph.D *(NBCC, APA CE Credits 1.0-Introductory-Advanced)*

Bell Room (Cancelled)

10:30a -11:30a **Break- Check-out of Hotel**

11:30a -1:00p **Graham Room**

Ethics in qEEG, Neuromodulation, and Biofeedback (continued)

Robert E. Longo, LPC, NCC *(NBCC, APA CE Credits 1.5-Intermediate)*

Edison Room

Mini-Workshops: Chosen per attendees on Sign-in Sheets: (continued)

Peder H. Fagerholm, Ph.D *(NBCC, APA CE Credits 1.0-Introductory-Advanced)*

Bell Room (Cancelled)

1:00 **Wrap-up**

Intended Audience: Psychologists, counselors, marriage and family therapists, social workers, physicians, physicians' assistants, nurses, case managers, biofeedback practitioners, educators, physical and occupational therapists, recreation therapists, holistic practitioners, massage therapists, Community Supports practitioners, and anyone interested in "cutting edge" therapeutic techniques, information and/or personal growth.