One Clinic's use of Metrics for Protocol Decision and Adjustment - A Discussion

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Materials that are included in this course may include interventions and modalities that are beyond the authorized practice of mental health professionals. As a licensed professional, you are responsible for reviewing the scope of practice, including activities that are defined in law as beyond the boundaries of practice in accordance with and in compliance with your professions standards.

SBCNA 2018 CONFERENCE
Atlanta, GA November 4, 2018

Case 1: Jot down your Considerations

Hx: A 9 year female is referred for neurofeedback therapy secondary to symptoms of anxiety. The patient also exhibits ADHD-like symptoms including fidgeting, problems with distractibility and with sustained attention. The patient is being referred after having been engaged in mental health counseling. The family has opted not to use medications and despite efforts to develop coping strategies, the patient's anxious symptoms are not improving.

HOW WOULD YOU APPROACH THIS CASE?

OBJECTIVE:

To propose a RoadMap applicable to ALL devices, modes, softwares, and methods.

- Present Milestones of Neurofeedback Training Process.
- Consider that Process applied to our clinic's cases.
- Consider the same using any clinic's toolkit.
- Discuss- Using a Case Presented by Plenary.

Who We Are:

Mind&Motion Developmental Centers of Georgia

BrainDx Neurometrics for this Millenium

DISCLOSURE:

Dr. Cantor is a Principal Member in both Mind and Motion as well as BrainDx.

Mr. Van Deusen is a Member in BrainDx, a Contractor at Mind and Motion and the Sole Member of ITALLIS.

Itallis Comunicação Ltda.

BrainDx Neurometrics for this Millenium

Who We Are: OUR PHILOSOPHY

Any individual can be seen from multiple clinical viewpoints and elicit multiple treatment approaches. We see evidence of many of these viewpoints' validity. When assessing patients, at intake as well as at case review moments, as many viewpoints as are justified and feasible are reunited and inform a singular integrated treatment approach.

Who We Are: OUR PHILOSOPHY

Any individual can be seen from multiple clinical viewpoints and elicit multiple treatment approaches. We see evidence of many of these viewpoints' validity. When assessing patients, at intake as well as at case review moments, as many viewpoints as are justified and feasible are reunited and inform a singular integrated treatment approach that involves the domains of:

- Mental Health: *Psychological and Neuropsychological Testing, Counseling, CBT, Parent Training, Social Skills Training, ABA Therapy (referred), qEEG, Biofeedback, Neurofeedback, IM, and forms of NeuroStimulation.*
- Allied Health: *Occupational Therapy, Speech Therapy, Physical Therapy, Vision Services (referred).*
- Metabolic Health: *Integrative Medicine, Pharmacological (referred).*

Who We Are: OUR POPULATION

… >1300 visits per month
… >80% are insurance payment
… >75% are pediatric.

We Predominantly See

- Pediatric: *ASD, Attention Deficits, SPDs, LDs, Childhood Affect Disorders, Pediatric Concussion, Eating Disorders, ALL Developmental Issues.*
- Adult: *Anxiety, Depressive, Dissociative, and Memory Disorders. Adult Stage Developmental Disorders.*
- Non-Clinical: *Forensic and Peak Performance.*

Who We Are: OUR TOOLKIT

ASSESSMENT BEING KEY TO SUCCESSFUL OUTCOMES…
The clinic maintains licensure to a catalogue of psychometric instruments, computerized assessments, equipment modes to attend the diverse population.

- Psych & Allied Health Assessment and Tracking: 145 instruments including form variants (some in Spanish) instruments on file covering ages Newborn to age 90.
- PsyPhy Modes: qEEG, nHEG, HRV, GSR, microTesla, AVE, IM (soon to add Vielight and tCDS)
- Metabolic Health: *Lab Tested and MD collaborated, qEEG guided-PsychoPharmacological collaborated.*

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HOW WOULD YOU APPROACH THIS CASE?

Case 1: We Jot Down YOUR Considerations

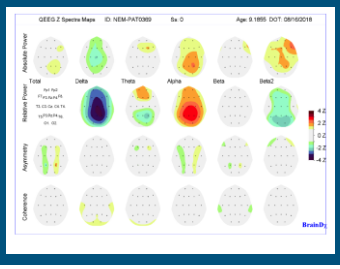
- 9 year female
- Symptoms of anxiety
- ADHD-like symptoms
  - fidgeting
  - distractibility
  - attention
- Has MH counseling
  - anxious symptoms are not improving
- Opted no meds

ASSESSMENT WE ALL Discuss

- qEEG?
- Family History and Status?
- Psych Testing?
- Clinical History of ANXIETY?
- Pre-Perinatal History /complications?
- Food Allergies/Diet?
- Sleep Patterns?
- School and Social History (past interventions)?
- Bullying/Trauma?
- Head Injury?
- Medical History?

Case 1: Evidence of the Brain's Function

- *9 year female*
- *Symptoms of anxiety*
- *ADHD-like symptoms*
  - *fidgeting*
  - *distractibility*
  - *attention*
- *Has MH counseling*
  - *anxious symptoms are not improving*
- *Opted no meds*



Case 1: qEEG Discriminant Classifier

Run Normal v.s. ADHD classifier elicits: *Guard – Indeterminate*

Run Normal v.s. Abnormal elicits: *Abnormal*

This patient's discriminant scores suggest the presence of Abnormal features.

Before we plan a treatment protocol…
Case 1: What More Should We Try to Discover?

- *9 year female*
- *Symptoms of anxiety*
- *ADHD-like symptoms*
  - *fidgeting*
  - *distractibility*
  - *unsustained attention*
- *Has MH counseling*
  - *anxious symptoms are not improving*
- *Opted no meds*

Seek other clinical information to validate reported symptoms and quantify level of impairment.

- Psychometrics to validate degree and type of ADHD or Anxiety
- In depth clinical history for mitigating factors.
  - Sleep problems
  - Dietary problems/GI related issues
  - Trauma/Stress?
  - Infection History
  - Allergies

Assuming clinical history does NOT indicate mitigating factors

- *History of mitigating factors*
  - *Sleep problems*
  - *Dietary problems/GI related issues*
  - *Trauma/Stress?*
  - *Infection History*
  - *Allergies*

- What is a logical NEUROTHERAPY protocol?
- WHAT MODES are most indicated?
- Do we train for ADHD or the Anxiety or try to train for both symptom sets?

When Attention AND Anxiety are symptoms: What Should Be Treated First?

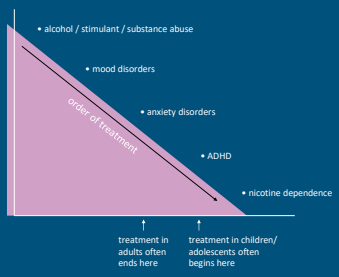
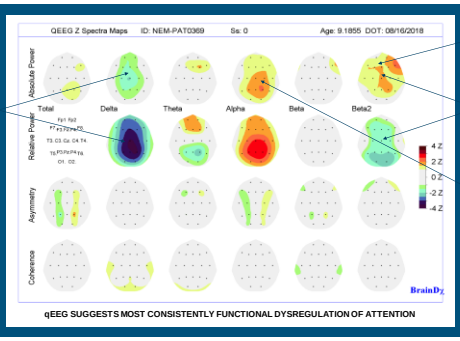


Figure 12-21. ADHD and comorbidities: what should be treated first?

Attention



qEEG SUGGESTS MOST CONSISTENTLY FUNCTIONAL DYSREGULATION OF ATTENTION

Sensory Integration

Anxiety?

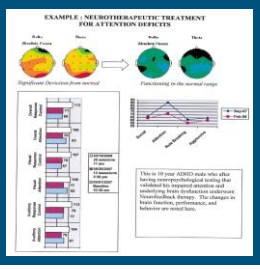
Attention, Sensory integration, emotion

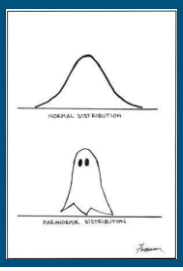
Case1: It's decided to reward Delta at Cz

- After approximately 6 hours of training, the mother reports <u>initially</u> that the patient showed significant improvement in attentions/behavior but not so much improvement in anxiety like behaviors – now what?
- What should we do now?

GO BACK TO THE EVIDENCE

Why do baseline measures if you are not going to track to establish treatment efficacy using the same?

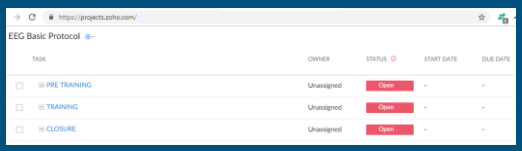




Case 1: CONSIDERATIONS

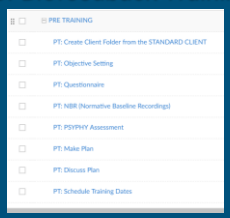
- MORE INFORMATION IS NEEDED TO ASSESS AND ADJUST.
  - Follow up qEEG.
  - Follow up CPT.
  - Follow up BAI.
  - More Clinical Interview about Anxiety Manifestations.
  - Etc.

Milestones of Biofeedback Training Process



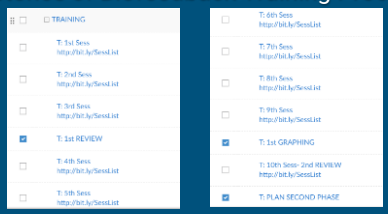
TIMES and PLANS WILL Vary.

Milestones of Biofeedback Training Process



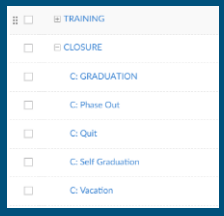
Use YOUR Tools and Collaborate with Others.

Milestones of Biofeedback Training Process



NOTE STANDARD REVIEW POINTS & PHASES

Milestones of Biofeedback Training Process



EACH CLOSURE IS UNIQUE TO THE PERSON

Discussion of Biofeedback Training Process

- OFFER A CASE.
- ASK A QUESTION.
- CHALLENGE AN ASSERTION.
- ADD INFORMATION.

DISCUSS

One Clinic's use of Metrics for Protocol Decision and Adjustment - A Discussion

THANKS TO:
SBCNA, OUR EDUCATORS, OUR CLIENTS, YOUR COLLABORATION, etc.

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A CASE FOR TRAINING ANOTHER MODE: HEG

Clinically

At the clinic in Georgia, decisions regarding when to train HEG follow these guides.

- Executive Functioning symptoms;
- Age or clinical presentation point to high artifact / low acceptance of EEG sensors;
- Diffuse decreased Z-scored absolute power of at least 3 frequency bands;
- Resistant to previous EEG intervention.

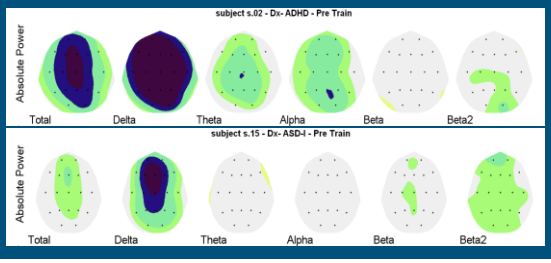
Symptom to HEG considerations

Clinically

Decisions to train HEG are not bound to any specific psychological diagnosis or presenting symptom set.

- Clinic is geared to Pediatric population yet Adults have trained with Depressive and with Anxious symptoms;
- ADHD and ASD patients are seen in greatest frequency;
- qEEG informs all protocol decisions- including HEG.
- Two protocols have been run in clinic:
  - Straight HEG training for 10 hours
  - Mixed HEG with EEG training with 5 hours of HEG.

EEG to HEG correlations Case2



HEG COMPARATIVE MEASURES Case3

Multiple successful outcomes, as measured by the qEEG Pre-Post and the IVA, noted to be more consistent once the Low Power Phenotype assessment was adopted. 1 Case Example