

Title of Session: School Counselors - Neurofeedback

Moderator: Barbara Muller-Ackerman

Title of File: 20040923schcounsneuro

Date: September 23, 2004

Room: On Tap Café

BarbaraMu: We can go for intros...

BarbaraMu: I have been a school counselor in NJ for the past 12 years, at the elementary level.

BjB: good idea. I'm an art teacher in Pennsylvania. Jack of all trades, mistress of none.

BjB: Jayme?

JaymeD: I am a middle school math teacher in California. I am working on my masters in science, math and technological education. I am learning how to participate in Tapped In for one of my classes. Now that I'm getting the hang of it I really like it

BarbaraMu: Last spring, the NJ School Counselor Association had a spring conference on neurofeedback and I thought it had tremendous possibility for helping our students so I took training in how use the technology involved.

BarbaraMu: Basically, EEG Biofeedback is a learning strategy that enables persons to alter their brain waves. When information about a person's own brain wave characteristics is made available to him, he can learn to change them. You can think of it as exercise for the brain.

JaymeD: I didn't realize you could change you brain waves

BarbaraMu: Neurofeedback addresses brain dysregulation- the brain is over aroused or underaroused in conditions like ADD, anxiety, depression, chronic pain, sleep disorders, autism spectrum disorders.

BarbaraMu: Yes, you can!

BarbaraMu: It involved practice to learn a new way of being both relaxed and alert...optimal to task.

JaymeD: is this an alternative to medication or in addition to medication

BarbaraMu: It also shows tremendous hope of being an alternative to medications

BarbaraMu: You read my mind!

BarbaraMu: If someone is on medications, and the brain wave patterns change, the medications usually need to be significantly reduced.

BarbaraMu: Think about ritalin- or any of the stimulant drugs for ADHD.

BarbaraMu: If you or I took the drug, without the condition, it would be incredibly stimulating.

BarbaraMu: To a brain which is underaroused, the stimulant is what the brain needs and so the body doesn't react in the same way.

BarbaraMu: When you change the brain wave pattern, and the brain is regulated, then the stimulant isn't required in the same dosage, if at all.

JaymeD: do doctors ever recommend this treatment instead of medication

BarbaraMu: Depends on the doctor...

JaymeD: do very many doctors know about it

BarbaraMu: Being in the schools, as a counselor, there were many times when teachers and the CST thought medication was important but the parent was resistant

JaymeD: yes, I've been in that situation

BarbaraMu: I would think, as an alternative treatment, perhaps.

BarbaraMu: This is a way to offer the parent something before going the medication route and, when successful, the medication isn't needed- or a lot less of it is.

BarbaraMu: And the neurofeedback practitioner needs to be in close communication with the doctor

JaymeD: Do you see this treatment as increasing in use as more people learn about it

BarbaraMu: I would hope that that is the case. The reason I learned about it is that the head of the Principals and Supervisors Educational Forum, in NJ, was trying to get school systems to invest in neurofeedback- to be delivered in the schools

BarbaraMu: The potential with ADHD really is wonderful

BarbaraMu: The problem is that ADHD rarely shows up alone.

JaymeD: what type of equipment is necessary

BarbaraMu: I am sure that you have seen children with ADHD who are also depressed...or anxious...or with OCD...or with Aspergers.

BarbaraMu: It is common to see multiple problems...many of which can be traced to a dysregulation in the brain.

BarbaraMu: Hi Jeff

JaymeD: I think I would be depressed and anxious if I had ADHD and had trouble focusing.

BarbaraMu: But neurofeedback is also used for peak performance training- to function most effectively- so not only those with problems can benefit.

BarbaraMu: And our children with ADHD often do. Jayme

BarbaraMu: Are there any specific questions anyone has- like how neurofeedback is administered?

JaymeD: how would the schools use neurofeedback

JaymeD: How is it administered?

BarbaraMu: I know in NJ, that the man I spoke of, Tony Scannella, strongly believes in neurofeedback to help children with ADHD. Since there are certainly many students diagnosed, it offers the parents alternate treatment

BarbaraMu: thereby helping the student, parent and teacher

BarbaraMu: Electrodes are applied to the scalp to record brainwave activity. We tell children that they are like stethoscopes- the electrodes only serve to listen - they are not invasive and they don't emit electrical impulse

JaymeD: how does it work? I have visions of kids with wires sticking out of their heads
BjB does also

BarbaraMu: No- you use a conductivity paste to "stick" the electrode on a place on the scalp. A "ground" is clipped onto the earlobe.

BarbaraMu: One or more sensors are placed on the scalp, and one to each ear. The brain waves are monitored by means of an amplifier and a computer-based instrument that processes the signal and provides the proper feedback. This is displayed to the trainee by means of a video game or other video display, along with audio signals.

JaymeD: Do the children begin to recognize feelings and how to control them?

BarbaraMu: The trainee is asked to make the video game go with his brain. As activity in a desirable frequency band increases, the video game moves faster, or some other reward is given. As activity in an adverse band increases, the video game is inhibited.

Gradually, the brain responds to the cues that it is being given, and a "learning" of new brain wave patterns takes place. The new pattern is one which is closer to what is normally observed in individuals without such disabilities.

BarbaraMu: In other words, without a joy stick or using the arrows or mouse, the child's brainwaves moves the video game

BarbaraMu: It might be a Pac-Man type game which moves through a maze

BarbaraMu: or it may be rocket ships which move toward planets

JaymeD: this sounds fascinating and with a lot of potential

BarbaraMu: The therapist's screen shows the brainwave patterns. We inhibit the very slow waves, and the very fast ones associated with tension.

BarbaraMu: We reward the "correct" brain wave pattern that we are asking the brain to produce more of

JaymeD: is it a conscious change on the part of the child?

BarbaraMu: When the child is making the right pattern- one associated with this state of relaxed attention, then the pac man moves and there is a beep that goes with the movement.

BarbaraMu: Adults have a lot more trouble doing it because they want a logical rational explanation for why the screen is moving

BarbaraMu: Kids just seem to get it

BarbaraMu: Adults want to will the pac man to move- which will usually guarantee that it won't

BjB: I would think it's important for the subject to be well rested

BarbaraMu: too much focus, too much strain and tension

JaymeD: when it comes to anything like a computer game - ask a kid

BarbaraMu: The state we want is - if you can think of a cat just outside a mouse hole...it sits and waits. Its body looks relaxed. But in an instant, it can pounce into action...and return to the waiting.

BarbaraMu: We want kids to be able to be relaxed- yet alert-

BarbaraMu: and then be able to regain that relaxation after being drawn off task

BarbaraMu: Eventually the brain wave activity is "shaped" (operant conditioning) toward more desirable, more regulated performance.

JaymeD: I can see why it's easier for kids

BarbaraMu: The cool thing is- if you think of it as exercise for the brain- that unlike physical exercise where, once you're toned, if you stop exercising, your body returns to flab...

BarbaraMu: once you regulate the brain- it sticks!!!

DavidWe joined the room.

BjB waves hi to David

DavidWe: hi

DavidWe waves

DavidWe . o O (pardon my interruption)

JaymeD: that sounds wonderful.

BarbaraMu: So, after 20-40 sessions, a child with ADHD is most times, making great progress toward remedying the symptoms which were there before

BarbaraMu: Usually, you will see some sort of changes with sleep in 5-10 sessions...more restful...waking without feeling tired

BarbaraMu: Hi David

JaymeD: does it have any affect on the depression or anxiety?

DavidWe nods to Barbara

BarbaraMu: There are 2 very good websites...both offer training and both have an FAQ about the process.

BarbaraMu: One is <http://www.eegspectrum.com>

JaymeD: my good friend is a school psychologist, I will talk to her about this

BarbaraMu: The other is <http://www.eeginfo.com> I would love if you could take a minute of two to look around the sites

DavidWe looks at the 2nd web site

DavidWe . o O (server not found for eeginfo.com)

DavidWe: Jayme, I'm David Weksler. I'm in New Jersey, near New York City

DavidWe . o O (welcome back, Barbara)

BarbaraMu: David- I didn't have any problem getting out to the site....

BarbaraMu: Thanks

DavidWe: there was a comma, not a dot in the address, I believe

BarbaraMu: Anyway, all the questions that I would answer or think to ask are in the FAQ on the spectrum site. There is a picture of a child hooked up (see Jayme- no wires coming out of everywhere!)

BarbaraMu: There are also some wonderful books- A Symphony in the Brain and ADD: The 20 Hour solution are two really good ones for someone to learn about the technique and its potential

BjB wonders if this treatment is suitable for all ADD children.

JaymeD: this sounds very promising. How do teachers let parents know about it?

BarbaraMu: I think that depending on what other conditions may be there, the number of sessions may vary from client to client

DavidWe nods

BarbaraMu: Certainly, if we can teach an ADD or anxious child to calm, then the other disorders can be looked at more easily. Sometimes, all that activity masks other conditions

BarbaraMu: or causes them

DavidWe . o O (deep breathing)

BarbaraMu: This is deep breathing for the brain

BarbaraMu: its eeg biofeedback

DavidWe: okay

BarbaraMu: because its based on electrical brain activity

DavidWe nods

JaymeD: how do teachers let parents know about this

DavidWe listens

BarbaraMu: Jayme- one of the things I did was to print out the FAQ and refer parents to the website where they could follow up with a provider that's identified in their area- if they choose to. Like anything else you suggest- from going to the doctor, to going for therapy, a teacher has to be very careful or the district could incur the cost.

DavidWe . o O (added to an IEP, for example?)

BarbaraMu: That's one of the reasons Tony is trying to bring this into the schools...

BarbaraMu: yes

DavidWe nods

JaymeD: I know. My district spends a good deal of money on special ed.

BarbaraMu: But when you are talking ADD, you could also be talking about a 504 plan since many districts don't classify for ADD

DavidWe would think most school districts do

DavidWe . o O (504?)

BarbaraMu: Section 504 accommodation plan

DavidWe would think most school districts DO spend money on special ed.

BarbaraMu: different from special ed IEP and open to any student with a medically legitimate condition which impairs learning

JaymeD: would the student do the sessions at school?

BarbaraMu: That is the plan for the districts who will take this on...

BarbaraMu: The sessions are fairly short...at most 30-40 minutes

DavidWe: Is Neurofeedback being used in your school district Barbara?

BarbaraMu: No.

BarbaraMu: I had started by saying that the NJ School Counselor Association, in conjunction with the Principals and Supervisors group, had a spring conference introducing neurofeedback -along with all its potential- to counselors and districts.

JaymeD: How would you avoid any stigmas attached that other students would know about?

BarbaraMu: How do you avoid stigmas that are attached to any pullout in school...

BarbaraMu: That's why some parents sign kids up for groups and others take their children to private practitioners.

BarbaraMu: same with speech service, OT, etc

BarbaraMu: We are just about done- so is there any last thought or question? I hope that you can tell that I am very excited about the potential- not just from hearing about this but from being a practitioner.

BarbaraMu: I have seen people who tapped and fidgeted and moved constantly to ones who can sit and attend...

BarbaraMu: I have seen children in the autism spectrum improve markedly

JaymeD: I would like to share the print out of this discussion with my friend who's a school psychologist. Is that ok?

BarbaraMu: That's the ideal thing to do!

BarbaraMu: And the reason for this wonderful Tapped In environment...spread the word!

BarbaraMu: I would like to sign out if there are no more questions...

DavidWe waves good night to Barbara

JaymeD: Thank you. Bye

BarbaraMu: Good night all! Next month back to safe schools topic.

BjB: thanks, Barbara.