

SFV-CAMFT

California Association of
Marriage & Family Therapists

San Fernando Valley Chapter

Connections

Interpersonal Biofeedback By Steven C. Kassel, MFT, BCB, BCN, AAPM

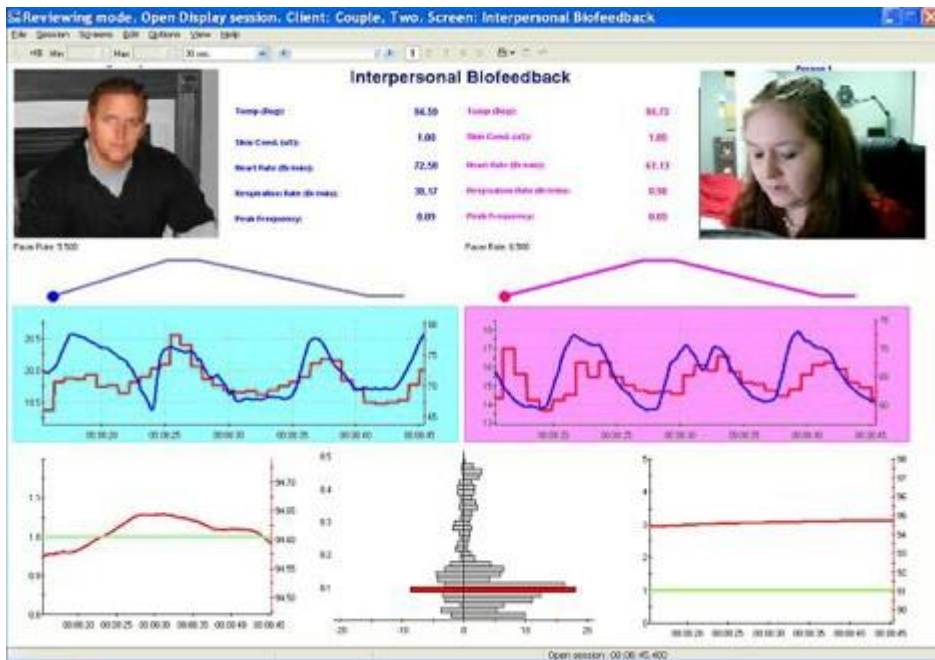
Interpersonal Biofeedback is a hybrid of two Evidence Based Therapies, Biofeedback Therapy and Couples Counseling. In 1977, Michael Kerrin suggested that by looking at physiological signals and feeding them back to family members through biofeedback instrumentation, they could learn to control physiology and cut down emotional reactivity.



This always made sense to me as a biofeedback therapist, trained and then Board Certified in Biofeedback in 1985 who then went on to study at Phillips Graduate Institute, a primarily Bowenian and Family Systems-based program. I remember arguing with my professors that Bowen's model of biological emotional systems is at play with human psycho-physiological systems, which could be trained to gain control over emotional reactivity. We've certainly learned a lot more since the 1980s about Interpersonal Neuropsychology through the work of Dan Siegel, Stan Tatkin and others, but it still holds true that when you initiate a stress response, through either a perceived stressor or one to which you are face-to-face, an alarm reaction (think Selye), or fight-flight response (think Cannon) is set off. Here is where heart rate increases, heart rate variability decreases, respiratory sinus arrhythmia goes out of phase (that's the relationship of breath cycle to heart rate variability in betas per minute), hand temperature decreases, sweat gland arousal occurs, muscles tense, immune system capabilities are initially enhanced and then decrease following the stressor, and brain consolidates its flow of energy, as we do what we need to do to overcome the stressor.

John Gottman has looked at this in his marital lab as he followed couples and their psychophysiology through the weekend to better understand how they respond to one another in a way that either brings them together or brings them to a state of disgust. His model of The Four Horsemen of the Apocalypse certainly sheds light on the patterns of communication, which are destructive and bring couples to relationship's end. However, his lab never used the psychophysiological monitoring to teach people to change as those in the field of biofeedback have since the 1960s to help patients with stress related medical disorders such as back and neck pain, irritable bowel syndrome, TMJ, headaches, high blood pressure, and brain based disorders such as anxiety, depression, seizures, head injury, ADD, Autism and PTSD. More info on these issues can be found at www.isnr.ofg and www.aapb.org.

So what is Biofeedback and why is it different than Neurofeedback? Biofeedback refers to the display of physiology that is given back to the patient in a moment-to-moment basis to enable them to gain control of that physiology. Feedback of heart rate, hand temperature, respiration and other systems is considered peripheral biofeedback while Neurofeedback is considered the feedback of EEG (brainwave signals) or brain blood flow.



With my 28 years in the business seeing a biofeedback patient one hour, a couple for counseling the next, I waited for technology to catch up to me and in 2006 I asked Thought Technology International, the world's largest manufacturer of Biofeedback instruments, to push their system to give me two video cameras (one for the husband and one for the wife) and 10 channels of psychophysiology.

The Interpersonal Biofeedback Research that I am conducting is composed of 10 sessions, two of which are pre- and post-testing and in the middle are eight training sessions. In pre- and post-testing, I am looking at baselines of sitting still, neutral talk, stress talk and recovery so that I can see if we actually made for change with this treatment. The training sessions are more educational than typical

The above graphic is the Interpersonal Biofeedback Screen. Just below each person is a respiration pacer to enable us to find the appropriate rate at which to breath for that particular person (i.e. 5 breaths per minute, 5.5 bpm, 6 bpm, etc.), heart rate superimposed over respiration rate, and at the bottom is hand temperature and sweat gland activity. The middle lines at the bottom show frequency spectrums of his and her heart rate variability.

couples counseling as clients are taught to warm hands, work with feedback, then conditioned to talk about stressful events or disagreements while keeping psychophysiology in non-reactive control. Patients, in effect, are systematically desensitizing.

The same work is done with couples seen in treatment. In treatment, I move them from a typical counseling paradigm to do a few sessions with the instrument. Talking about issues that are stressful and learning to warm hands (an expression of the parasympathetic nervous system; the relaxation response) is a fairly easy thing to learn. It's really remarkable when one spouse sees that hyper-excited dance of the other spouse's heart activity and figures out that the choice of words they use has that much of a negative effect. Most couples have reported that they find this type of therapy helpful and have been able to decrease reactivity.

A few others are doing similar work. My colleague Ray Varlinsky uses two stand-alone (non-computer connected) EmWaves, each on a mic stand in front of the spouses, teaching calming techniques and practicing with dialogue. Les Fehmi is using EEG Biofeedback to help couples open focus of attentional states and attunement. Joe Kamiya, a pioneer in EEG biofeedback, devised a system where husband and wife are in separate rooms facing computer monitors and only when their EEG rhythms are in phase, will the screen allow them to see and talk with one another.

Using Interpersonal Biofeedback with couples is a powerful technique and should be done so only with appropriate training.

Steven C. Kassel is has been Board Certified in Biofeedback since 1985, Board Certified in Neurofeedback since 1992 and licensed as a Marriage and Family Therapist since 1991. He is past-president of the Biofeedback Society of California and has presented at professional workshops on this subject and on Biofeedback in Schools; K-12. He presented to SCV-CAMFT in 2009 and is a die-hard healthcare reform activist. He offers 10 FREE Interpersonal Biofeedback sessions to couples that meet criteria.

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