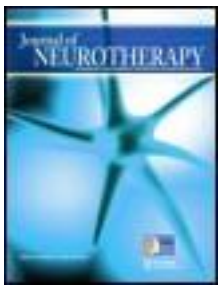

Journal of Neurotherapy: Investigations in Neuromodulation, Neurofeedback and Applied Neuroscience

News from Other Journals and Websites

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NEWS FROM OTHER JOURNALS AND WEBSITES

David A. Kaiser, PhD, Editor

Extraordinary claims require extraordinary evidence. Without large government-sponsored five-year programs, neurotherapists will never accumulate enough evidence to convince the scientific world of the remarkable (and potentially valid) claims many clinicians make for this discipline. Ordinary claims supported firmly, however, will be acknowledged, some even accepted, and when enough are strung together, their mass will drive scientific acceptance and clinical adoption by the various communities working with brain disorders. Making substantiated claims in journals read by people unfamiliar with neurotherapy (95% of the population) is the first step in this process, and I'm happy to report two recently published neurofeedback papers are doing just that. Thinking about this field's potential, I'm reminded of Cyril Connelly's warning to young writers: "Whom the gods wish to destroy, they first call promising."

Authors are encouraged to submit recent preprints or reprints for this section and anyone can submit reviews or recommend websites. Contact David Kaiser at dakaiser@mail.rit.edu

RECENT MUST-READ PAPERS

Egner, T. & Gruzelier, J. H. (2001). Learned self-regulation of EEG frequency components affects attention and event-related brain potentials in humans. *NeuroReport*, *12*, 4155-4159.

Egner and Gruzelier investigated neurofeedback band-specific effects on perceptual and motor aspects of attention measures. Commission errors on the Test of Variables of Attention (TOVA) were reduced significantly after 10 training sessions. In fact the amount of improvement was predictable by the participant's relative success at operant learning, particularly for sensorimotor rhythm (12 to 15 Hz) training, thus suggesting some protocol specificity for impulse control. EEG operant conditioning of SMR and low beta (15 to 18 Hz) also influenced P300 event-related potentials in an auditory oddball task.

Hammond, D. C. (2001). Treatment of chronic fatigue with neurofeedback and self-hypnosis. *NeuroRehabilitation*, *16*, 295-300.

A 21-year-old patient with serious chronic fatigue syndrome was treated effectively using a QEEG to guide neurotherapy and self-hypnosis.

EEG AND NEUROIMAGING

Gadoth, N., Vainstein, G., & Yoffe, V. (2002). Can police car colored flash lights induce electroencephalographic discharges and seizures? *Clinical Electroencephalography*, *33*, 48-50.

Police lights were tested on epileptic and chronic headache patients and controls. Analyzing participants' EEG, it was determined that the new Israeli police car lightbar did not induce clinical or electrographic seizures and was not epileptogenic.

Leuchter, A. F., Cook, I. A., Witte, E. A., Morgan, M., & Abrams, M. (2002). Changes in brain function of depressed subjects during treatment with placebo. *American Journal of Psychiatry*, *159*, 122-129.

"Effective" placebo treatments induce changes in brain function (in Leuchter's own measure named "cordance") that are distinct from those associated with antidepressant medication.

Puente, A., Ysunza, A., Pamplona, M., Silva-Rojas, A., & Lara, C. (2002). Short latency and long latency auditory evoked responses in children with attention deficit disorder. *International Journal of Pediatric Otorhinolaryngology*, *62*, 45-51.

Children with ADD show significant delays and reduced amplitude in auditory P300s, indicating an impaired auditory system.

Sachdev, P. S., McBride, R., Loo, C. K., Mitchell, P. B., Malhi, G. S., & Croker, V. M. (2001). Right versus left prefrontal transcranial magnetic stimulation for obsessive-compulsive disorder: A preliminary investigation. *Journal of Clinical Psychiatry*, *62*, 981-984.

A quarter of resistant OCD appear to respond to rTMS to either prefrontal lobe.

Shaw, M. E., Strother, S. C., McFarlane, A. C., Morris, P., Anderson, J., Clark, C. R., & Egan, G. F. (2002). Abnormal functional connectivity in posttraumatic stress disorder. *Neuroimage*, *15*, 661-674.

PTSD was characterized by more activation in inferior parietal lobes and left precentral gyrus than controls, and less activation in inferior medial frontal lobe and right inferior temporal gyrus.

Suffczynski, P., Kalitzin, S., Pfurtscheller, G., & Lopes da Silva, F. H. (2001). Computational model of thalamo-cortical networks: Dynamical control of alpha rhythms in relation to focal attention. *International Journal of Psychophysiology*, *43*, 25-40.

Local event-related desynchronization is often coupled with synchronization in other brain regions. The authors suggest a focus/surround model in the reticular nucleus.

MENTAL HEALTH AND NEUROLOGICAL DISORDERS

Beauchaine, T. P., Katkin, E. S., Strassberg, Z., & Snarr, J. (2001). Disinhibitory psychopathology in male adolescents: Discriminating conduct disorder from attention-deficit/hyperactivity disorder through concurrent assessment of multiple autonomic states. *Journal of Abnormal Psychology*, *110*, 610-624.

Physiological measures are used to discriminate and understand rates of comorbidity between CD and ADHD.

Brue, A. W., & Oakland, T. D. (2002). Alternative treatments for attention-deficit/hyperactivity disorder: Does evidence support their use? *Alternative Therapies in Health and Medicine*, *8*, 68-70, 72-74.

The success of complementary and alternative medicine in treating children with ADHD varies, and parents typically use a trial-and-error method when evaluating these approaches.

Conway, K. P., Swendsen, J. D., Rounsaville, B. J., & Merikangas, K. R. (2002). Personality, drug of choice, and comorbid psychopathology among substance abusers. *Drug and Alcohol Dependence*, *65*, 225-234.

Drug abusers score lower on constraint, suggesting a possible strong link between disinhibition and drug selection.

Dougherty, D. D., Baer, L., Cosgrove, G. R., Cassem, E. H., Price, B. H., Nierenberg, A. A., Jenike, M. A., & Rauch, S. L. (2002). Prospective long-term follow-up of 44 patients who received cingulotomy for treatment-refractory obsessive-compulsive disorder. *American Journal of Psychiatry*, *159*, 269-275.

Neurosurgical removal of the cingulate was viewed as a successful treatment for OCD although only one third of patients responded well. Not very convincing given presumable deficits that follow loss of this important structure.

Evert, D. L., & Oscar-Berman, M. (2001). Selective attentional processing and the right hemisphere: Effects of aging and alcoholism. *Neuropsychology*, *15*, 452-461.

Both aging and alcoholism lead to a right hemispheric functional decline.

Giaconia, R. M., Reinherz, H. Z., Paradis, A. D., Hauf, A. M., & Stashwick, C. K. (2001). Major depression and drug disorders in adolescence: General and specific impairments in early adulthood. *Journal of American Academy of Child and Adolescent Psychiatry*, *40*, 1426-1433.

Deficits associated with depression and drug disorders were primarily specific, suggesting distinct trajectories.

Mullins, J. L., & Christian, L. (2001). The effects of progressive relaxation training on the disruptive behavior of a boy with autism. *Research in Developmental Disabilities*, *22*, 449-462.

As an autistic child acquired progressive relaxation skills, he showed a decrease in the duration of his disruptive behaviors.

Raz, A., & Shapiro, T. (2002). Hypnosis and neuroscience: A cross talk between clinical and cognitive research. *Archives of General Psychiatry*, *59*, 85-90.

Discusses the role of hypnosis in cognitive neuroscience, and how imaging can assist our understanding of this technique.

Sanchez, L. E., & Le, L. T. (2001). Suicide in mood disorders. *Depression and Anxiety*, *14*, 177-182.

Mood disorders in children and adolescents are frequently underdiagnosed, misdiagnosed, and undertreated.

Schatz, A. M., Ballantyne, A. O., & Trauner, D. A. (2001). Sensitivity and specificity of a computerized test of attention in the diagnosis of Attention-Deficit/Hyperactivity Disorder. *Assessment*, *8*, 357-365.

Conners and TOVA performed similarly in identifying ADHD-suggestive patterns, but the TOVA found attentional problems in nearly one-third of controls (group size of 20).

Wilens, T. E., Biederman, J., & Spencer, T. J. (2002). Attention deficit/hyperactivity disorder across the lifespan. *Annual Review of Medicine*, *53*, 113-131.

Reviews the most common neurobehavioral disorder presenting for treatment in youth, namely ADHD.